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THE PHILADELPHIA MEDICAL JOURNAL

A WEEKLY JOURNAL OWNED AND PUBLISHED BY THE PHILADELPHIA MEDICAL
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VOLUME X.

JULY—DECEMBER, 1902.

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PHILADELPHIA.

THE PHILADELPHIA MEDICAL PUBLISHING COMPANY.

1902.

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The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. Reprints (250) Original Articles will be furnished gratis to Authors making the request.

The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8.

VOL. X, NO. 1

JULY 5, 1902

\$5.00 PER ANNUM

The Case of King Edward.—We rejoice with King Edward, his family, his people and also with his medical attendants that his recovery seems now assured. His case has caused world-wide interest and the greatest amount of speculation among medical men regarding its details. His illness, coming as it did on the eve of his coronation day, has brought forth sincere expressions of sympathy from the whole world. The nature of his illness has produced a lively interest in the lay as well as in the professional mind, for perhaps no ailment at the present time is the subject of more general discussion than appendicitis. It is the one surgical condition about which the layman is most inquisitive and which is the subject of conversation in every intelligent household. When the King's case was first reported, it was thought that the term "perityphlitis" might mean an inflammation in the cecal region of other than appendiceal origin, particularly as nothing was said of the appendix in any of the official bulletins. But at the present time there seems to be little doubt that the condition for which Sir Frederick Treves operated was one of appendicitis which had progressed to the stage of abscess. The *Lancet* and the *British Medical Journal* have both said that the idea conveyed by the bulletins is the correct and honest one and that there is no reason to suspect such conditions as a malignant growth of the cecum or tubercular ulceration of this bowel. The course of the King's illness prior to operation would certainly bear out this statement, for on the day before operation he suffered extreme and nearly prostrating pain, which later in the day became much less severe. Pain behaving itself in this way is much more likely to be of appendiceal origin than to result from a malignant growth; in fact, it is the pain of an acutely inflamed appendix which progresses to the stage of gangrene. It is exceedingly difficult to present with any accuracy an account of the real conditions in the King's case, but there is vast room for conjecture. If, however, the published official statements are correct, and we believe they are, King Edward certainly had an abscess in the neighborhood of the cecum which was open-

ed and drained by the insertion of two drainage tubes. No mention whatever has been made of the appendix in any of the bulletins signed by the King's attendants; therefore we can presume that this organ, which we believe is the cause of all the trouble, or what is left of it, remains in the King's abdomen. If these suppositions are correct, two pertinent questions present themselves: Why was an operation not performed before the disease had reached the stage of abscess formation? and, Why was the appendix not removed when the operation was done?

Too Soon for Criticism.—These questions and others, which also present a criticising tone, have been heard upon all sides in this country, and there has been too marked a tendency to judge harshly the King's physicians. These gentlemen, for reasons best known to themselves and their royal patient, have seen fit to give the curious and criticising public few details regarding the King's condition and treatment, and until these have been made known it seems to us both unwise and unfair to pass a premature judgment upon our brethren in attendance upon His Majesty. To do this with the data in our possession is also not only uncharitable, but it is hardly ethical. Let each of us place himself in the position occupied by the King's advisers and imagine how galling would be such a criticism as we have referred to, made as it is when no hint has been given as to the difficulties they may have, perchance, had to encounter and overcome. Few surgeons there are of much experience who have not suffered in just this way from a judgment at the hands of their professional brethren who possessed but small knowledge of the true circumstances surrounding the case in question. How many of us can say that we have never had a patient with appendicitis pass on to the stage of abscess while under our care, or that we have never left an appendix in the abdomen when operating for a perityphlitic abscess? Not that we have failed to protest against delay and urged operation, but that rather, in spite of the most

earnest protest on our part, the patient would not consent to operation. We are told that the King most strenuously opposed an early operation and only consented to it when he realized his dangerous condition. How many surgeons can recall similar instances when they have had to sit and hold their hands, while an obstinate patient slowly made up his mind to accept a bad situation and make the best of it. We in America are undoubtedly in advance of our British confrères in the treatment of appendicitis, but of this particular case we know little; so let us judge lightly and not too soon. The lesson to be drawn from this much discussed case was shown in our editorial columns of the last issue, and we repeat that patients must learn that appendicitis is a condition demanding early recognition and early and thorough operative interference.

Leukocytosis in Appendicitis.—All reliable methods of diagnosis which can be pressed into service without danger to the patient are always desirable when drawing conclusions regarding the nature and extent of a disease, but, unfortunately, circumstances do not permit of close scrutiny in all cases, for obvious reasons. In the case of the illness of King Edward VII the best medical talent of England has been summoned and all available means for diagnosis and treatment are at hand.

Bearing in mind the facts set forth in the apparently authentic reports and the signed statements of the distinguished physicians in attendance on the royal patient, for instance, a rather sudden illness persisting for some days, then the operation for perityphlitis which freed an abscess of a large quantity of pus, it would be of great interest to know what results the blood examinations revealed. The fact that an enormous number of phagocytic leukocytes have accumulated in an area forming a large abscess is convincing evidence that intense or long-continued positive chemiotactic force has existed, and that a consequent response of the leukocyte-forming organs had followed, which should manifest itself by an increase in the number of white corpuscles in the circulation.

In acute appendicitis attended with suppuration, such as is supposedly illustrated in the King's case, a sudden and decided rise is an almost constant sign and a most valuable guide in the recognition of this condition. As high counts, in the majority, if not in all cases, point to a severe form of inflammation and to good resisting powers of the patient, the occurrence of a well-marked leukocytosis in any case of acute appendicitis is generally regarded by

surgeons as one of the indications for prompt surgical interference.

International Sympathy.—The sympathy of the American people for the King of England and for the people of England is universal and sincere. The interest of the American medical profession in the case is greater than it could possibly be in the case of any other man not an American. It is a matter of not a little significance to members of the medical profession that the bonds of international sympathy are never more closely drawn than in such cases as that of President McKinley and that of King Edward, in which the medical profession has to take such a conspicuous part. On this side of the water it has been a source of extreme satisfaction that such eminent men as Lord Lister, Sir Frederick Treves and their colleagues, whose work is as well known in America as it is in England, are in charge of this gravely responsible case. The feeling is that neither the case of the King nor the good fame of the profession can suffer detriment in such hands.

Medical Bulletins.—The medical and surgical attendants on the King have been somewhat criticised for the meager information they have given to the public in their bulletins. This raises a question of much delicacy and difficulty. We are in favor of a due reserve in such cases, but at the same time we recognize that it is not easy to say what the limits of a due reserve shall be. It is useless to ignore the fact that a President or a King is not an ordinary individual, and that the public, and especially the professional public, must be taken into confidence to some extent.

There are undoubtedly minor and personal details in all such cases that are not proper for publication. On the other hand, there are some technical details that are essential for a proper understanding of the case. The temperature and pulse-rate are among such details, and we can hardly see what harm can come from announcing them. It might be a good rule for the medical attendants in such a case to recognize the fact that they are addressing the professional public, and hence to give enough technical information to allow the medical profession to understand the case and to mould public opinion. This, we are sure, is a better policy than leaving every one in partial ignorance with the risk of having the case misinterpreted.

The surgeons in attendance on King Edward are very distinguished men, and their simple word is surely enough to satisfy the general public, which hardly ever cares to scrutinize such bulletins too

closely. The real critics are the doctors. They are likely to look grave and even ominous unless they are told a little more about the case than has been vouchsafed to them in the case of the King. This is human nature, and human nature has to be reckoned with. That is what medical bulletins are for.

Superstition and the Occult.—The newspapers of the world have given a conspicuous place during the last few days to the report of the ominous forebodings which it is claimed were whispered previous to King Edward's illness and which have waxed mighty and gained color in the telling since the alarming news of the King's critical state and the consequent postponement of the coronation. We have been assured in all seriousness that a portrait of His Majesty fell from its frame but a few days before, and that the King had been for years worried by a prophecy uttered of him in childhood to the effect "that King shall Edward be, but never shall be crowned." Further, an astrologer had foretold a severe illness to the King in June of this year. There is very much to be said against the dissemination of superstitious vaporings of this character at any time, and especially at a moment when a threatened calamity hangs over a nation.

The belief in the occult in any of its myriad forms goes back to the earliest times. The phenomena of nature, so tremendous in power and variety, awakened awe in the ignorant mind. Inability to comprehend on scientific ground, before science had been brought forth, gave rise to earnest effort to grasp phenomena by divination of various kinds. Belief in an unknown power led to the animation of objects which came to be feared. It was thus that polytheism arose. It has long been the effort of rational men to dissipate the beliefs which thousands of years have rendered well nigh innate in the human race. It were well on this ground alone that these superstitious prophecies about King Edward should prove to be wrong, and that the King's life should be spared, not only as the result of his surgeons' achievement, but as an exemplar that such superstitions are false. The revival of such occultisms and the effect of popularizing them in the press cannot be too strongly deprecated. No sensible man can see any possible causal relation between the fall of a picture and the near death of its subject. Should such an event occur, the average man looks upon it simply as a coincidence, and he doubtless recalls many cases in which a picture has fallen and no death has occurred. But the ignorant and the superstitious forgot the many times in which the sign failed, and gloat over the few incidents which they have carefully collected that

prove to them the superstitious value of the omen. The vain seeking after an explanation to connect dire results with some mere coincidence discredits to the man of intelligence the possibility of such relation. Since the belief in the supernatural went so long unchallenged, there is, it may be said, in the mind of almost every one an indefinable latent idea that, after all, he is not entirely free from the taint. In itself this is not a bad thing. It gives rise to the play of fancy and imagination, but it must be carefully subjugated to the firm conviction that the evidence in favor of the occult in life is as nothing compared to the evidence against it. We may not at all times be able to interpret the workings of nature, for we are finite beings. There is, however, no logical reason for our calling in the supernatural to explain what is simply beyond our ken. As the years go on we add a little to our sum total of knowledge, and we are thus enabled to interpret by perfectly rational means what would have been referred to the black arts a century or two ago. Education must ever discredit superstitious beliefs and aim to explain the coincidences, which at times appear to exist, by the means at its command. To the ignorant and the credulous the occult appeals much more strongly than to the educated mind. For that reason is the wide publicity given to the forebodings of King Edward's illness most to be deplored.

An American Borgia.—We are not entirely ready to believe that Jane Toppan is as bad as she would like to have herself appear. Spurious confessions are not unheard of among criminals and degenerates. The motives for such false confessions are various and numerous, and criminal lawyers know that a confession is not always good ground upon which to hang a person.

Jane Toppan is evidently both criminal and degenerate, but when she boasts of the honor of having poisoned 31 persons, she staggers our credulity with the very enormity of her alleged crimes. When she exclaims dramatically that she will be better off in prison where she can do no more harm, she suggests a melodramatic situation that rather reminds us of the dime-novel. We can readily understand how a degenerate like Jane Toppan would prefer to be reputed the sensational poisoner of 31 persons rather than the commonplace murderess of one. It might accord very well with the megalomania of such a person as Jane Toppan to wish to pass into history as one who had eclipsed the brilliant record of Lucretia Borgia herself.

The case, however, is too important to be allow-

ed to stand unchallenged. The newspapers have taken it in hand in their accustomed manner and exploited it possibly for more than it is worth. Strange that few or none of them have paused to exercise their critical judgment a little and ask whether it is really all so? We suggest that in justice to science, as well as for enlightenment all round, the case of Jane Toppan be analysed by some competent critic who can gain access to the facts, and that then it be put properly on record. This thing of publishing loosely a string of alleged wholesale murders before any one has had a chance to investigate them, should be beneath the dignity of reputable journalism.

It is amusing to see how eagerly some of the newspapers catch at a chance to assail the medical profession. What were the doctors doing, they cry, all this while that Jane Toppan was poisoning people? Rather, we ask, what were the police and the lawyers and the newspapers doing?

Finally, the weighty question is raised: If Jane Toppan had been detected in her first murder, could she have been acquitted on the ground of impulsive insanity? Would it not be necessary to wait until she had committed several murders before she could be proved impulsively insane? Jane Toppan herself evidently believes so; and therefore she proclaims that she has killed many. She is a shrewd lunatic.

The case is noteworthy for the promptness with which the court, acting evidently on the advice of medical experts, reached its conclusion.

Fourth of July Injuries.—By the time this appears in print the annual crop of these injuries will have been gathered; or, to state the case rather more accurately, the seed will have been sown but the harvest will not all be in. We trust we shall be spared the sickening reports of tetanus from all over the country. It does seem that by this time we should have become sufficiently expert in our patriotic surgery to make some amends for our patriotic noise and tom-foolery. In other words, Fourth of July injuries should be treated so skilfully and antiseptically that we should have done with these long and distressing death-lists.

The slightest wounds of the fingers and hands from toy-pistols or fire-crackers should be given the closest attention and care. Practising physicians in all parts of the United States should reflect that the mortality after the Fourth of July from such trifling wounds has in some years been startling. Any such wound may be infected, and every such wound should be treated as though it were. The continued preaching on this subject in the profes-

sional and lay press has had good results. Last year the reports were better. This year they should be better still.

We have already expressed our opinion in these columns about the compensation for President McKinley's doctors. The latest on the subject is to the effect that an amendment, appropriating \$45,000 for the purpose, was entered in the General Deficiency bill by the Senate on the 26th. ult. How much nearer this comes to paying the waiting doctors, we do not know; but we hope it is at least a step. Appropriations move slowly—even to pay doctors who had to move quickly.

This country seems to be taking the subject of cholera in the Philippines with a great deal of nonchalance. We are glad that no one thinks it worth while to get in a panic over it—and yet the fact that we are at the present moment having a full blown epidemic of cholera in United States territory, is rather disquieting. According to official reports 1740 cases of cholera have occurred in Manila, with 1385 deaths. In the provinces there have been 9444 cases, with 7038 deaths.

At a recent examination for medical graduates the following definition of Chemistry was given:

"Chemistry studies us about the properties of substances to connect with other substances in such way that the resulting substances are not similar in their properties with neither of each of the former."

This happened not one hundred miles from Philadelphia and New York.

Current Comment.

ANOTHER DOCTOR IN POLITICS.

The new Prime Minister of France, Dr. Combes, is a doctor of medicine. Before joining the medical profession, he was a priest, and as the Abbé Combes figured for several years as one of the professors of the College of the Assumption, at Nîmes, where he was renowned for his piety. A certain mystery prevails with regard to the circumstances which led him to abandon the cassock for the scalpel, and to convert his Doctorate of Divinity into one of medicine.—*The Philadelphia Press*.

THE DISEASES OF ALASKA.

An English physician has lately reported on the diseases prevalent in Alaska, after a residence of 16 months in the country. There are 2 seasons, winter, the season of pack-ice; summer, the season of swamps. The winter lasts for 9 months, the summer for 3. Among human maladies, cerebrospinal meningitis is very prevalent, sometimes in epidemic, sometimes in sporadic form. It is often difficult to distinguish from the cerebral form of typhoid. Scorbutus is also widespread. Rheumatism is frequent, and

usually takes the neuralgic type; inflammatory rheumatism is rare. Pneumonia is almost unknown, strange to say. Affections of the digestion are very frequent owing to poor food; nervous diseases, such as locomotor ataxia, etc., are also frequent. Alcoholism and the like are prevalent, due to the ennui of the long winter, but, on the whole, intemperance is less harmful in Alaska than in more Southern climates. Insanity is by no means rare, and it declares itself most frequently in winter, owing to ennui, absence of occupation, lack of exercise and isolation. Its usual form is acute melancholia, almost always followed by acute mania. Suicidal mania is also frequent. Taken altogether, the catalogue of Alaskan diseases is a long one, and indicates that a vigorous physique and morale are required to resist them.—*New York Sun*.

AN EDITORIAL PROTEST.

A paper recently received was unique in possessing nearly all the features from which an article intended for publication should be free. It was written on the cheapest of scratch paper—in lead pencil (soft)—on both sides of the paper, and the manuscript was tightly rolled. Defective punctuation and capitalization rounded out the whole, so that nothing was missing to make the editorial task anything but one continual round of pleasure.

—*Pennsylvania Medical Journal*.

Correspondence.

A CASE OF URACHAL FISTULA.

By FREDERIC GRIFFITH, M. D., of New York.

To the Editor of the *Philadelphia Medical Journal*:

A patulous condition of the urachus when found is of sufficient interest to be noted. The following is the history of a urachal fistula which lately came under my notice: E. is a male infant of five months. The mother was confined in a public institution and until dismissed at the end of two weeks had no care of the child beyond that of nursing it at stated intervals. Upon the tenth day the stump of the cord is said to have been forcibly detached from the abdominal wall by the attending physician. Assuming the entire care of the child upon her return home, the mother noticed the continuous presence of a watery fluid at the baby's navel. Reporting to the hospital the woman saw her nurse, who applied a simple dressing and told the mother of the probable cause of the condition and expressing the conviction that the wound would soon heal.

After applying household remedies for several weeks with no benefit, the little patient was brought to Bellevue. Examining the child I found its body well-formed with an umbilicus apparently normal save for a scoriated area surrounding it due to maceration of a tight band against a moistened skin.

The navel cleft would not admit a probe beyond its normal depth, a capillary opening at the bottom being the probable source of a colorless, limpid, watery fluid of a fresh, nonurinous odor. The quantity varied, sometimes filling the umbilical cleft, at others its presence was only to be noted by the moisture area upon the flannel body band. The child was breastfed, slept well, bowels and kidney regular in action; was bright and otherwise well and growing. There was no suspicion of hernial formation.

The treatment carried out over a period of three months was first directed toward securing a reduction of the dermatitis by supplying drainage. A light, fluffed gauze dressing connected by small, narrow strips of rubber-tissue to the depths of the navel cleft prevented further excoriations after a few applications, which were renewed upon every third day. The parts were kept cleaned by means of a solution of hydrogen dioxide. Obliteration was attempted by the application of one-half inch straps of adhesive plaster applied crosswise, so as to make constant pressure toward the center of the umbilicus. The success of this plan of treatment was shown by a gradual disappearance of the fluid.

The watery exudate was clearly not urine or, if it were

the kidney excretion, it had been so altered by its manifest slow passage through the capillary tube-connection that most of the urinary characteristics were lacking. The writer, without any direct evidence, for he did not feel justified in forcing an instrument along the canal considering the results of possible traumatism, rather holds to the opinion that the lower opening connected with the peritoneal cavity and that this was the source of the watery exudate.

AN INTERESTING PISTOL-SHOT WOUND.

By EUGENE STADELMAN, M. D.,

of Descubridora, Dgo., Mex.

To the Editor of the *Philadelphia Medical Journal*:

Here is an interesting case of pistol-shot wound. The patient was a Mexican, 30 years old. While on a debauch on the night of the fifth of May, he was shot with a 44 cal. pistol. The ball entered the right side of the base of the neck one and one-half inches to the right of the midsternal line, and one-quarter of an inch above the sternoclavicular articulation.

The ball glanced, without breaking the bone, passed outward and upward and lodged under the skin of the back, three inches to the right side of the spine of the seventh cervical vertebra. It will be seen from this that the ball must have passed very close to both the right subclavian and the right common carotid arteries. The examination of the patient revealed an entire absence of the right radial pulse and of the right axillary pulse. The right carotid pulse was faintly detectable.

During the first week the patient complained of numbness of the right hand and fore-arm. During the succeeding three weeks the carotid pulse returned to normal, the right axillary pulse became decidedly perceptible, but the right radial pulse is still absent. The patient is able to attend to his usual work and apparently suffers no inconvenience.

Reviews.

A Practical Treatise on Smallpox, Illustrated by Colored Photographs from Life, by George Henry Fox, A. M., M. D., Consulting Dermatologist to the Health Department of New York City, with the collaboration of S. D. Hubbard, M. D., S. Pollitzer, M. D., and J. H. Huddleston, M. D.: J. B. Lippincott Co. 1902.

The above title is somewhat deceptive, inasmuch as the publication is presented in two parts in atlas form with an accompanying succinct text on variola and vaccinia, not exceeding thirty quarto pages. These are well written and evidence on the part of the writers a practical acquaintanceship with these diseases. The descriptions are not culled from text-books on the subject, but are manifestly the result of bedside experience. The chapter on diagnosis is lucid and satisfying in every respect.

The article on treatment presents a discriminating review of the therapeutic measures which have been found to be of value. No space is wasted in printing the endless number of alleged local and constitutional specifics. Whilst the text as a whole attains a high degree of excellence, objection might be made to a few of the statements made. Herpes zoster and sciatica are enumerated among the frequent complications of smallpox. In a series of 2,000 cases neither manifestation has been seen. On the other hand, no mention is made of otitis media, erysipelas and cutaneous gangrene which are by no means rare complications. The statement that "the temperature in smallpox undergoes a rapid defervescence upon the appearance of the rash" (page 12) is not strictly true. In unmodified smallpox the temperature does not as a rule take a sharp decline until the third or fourth day of the eruption. This fact, indeed, is recognized elsewhere (page 4) by one of the collaborators.

The pulse in the initial stage of smallpox is occasionally disproportionately slow compared with the temperature: the statement, therefore, on page 10, that "in smallpox the

temperature and pulse are both markedly rapid" cannot be fully subscribed to.

On page 23 it is stated that "much of the pitting left after an attack of smallpox may be due to the tearing of the crusts from the face and other parts." This is refuted by the observation that young children, despite the fact that they vigorously scratch and rub their faces, usually escape with much less scarring than adults.

Some of the illustrations are excellent, particularly those of hemorrhagic smallpox, of vaccinia and the photograph of variolous umbilication. Many, however, are only moderately good. The colored illustrations would have been better if reliance had been placed upon simple photography and no coloring attempted. The elevation of variolous lesions renders simple photographic reproduction satisfactory. There is no need for the terms "variola erythematosae," "variola papulosa," etc. These designations are used in skin diseases to denote certain varieties; in smallpox these terms do not indicate varieties, but brief evolutionary stages. The work will be of value to the practitioner in familiarizing him with the appearance of smallpox in its various stages. The perusal of the accompanying text will satisfactorily supplement the information conveyed by the illustrations. [J. F. S.]

A Laboratory Guide in Elementary Bacteriology. By William Dodge Frost, M. S., Instructor in Bacteriology, University of Wisconsin. Illustrated. Second Revised Edition. Published by the Author. Madison, Wisconsin. 1902.

The book before us for review is a synopsis of laboratory methods in bacteriology arranged in the form of systematic exercises for the use of the student in elementary bacteriology. That the book has found a place for itself is indicated by the fact that the first edition has given place to the second in a year. The various exercises are prefaced by a list of references to standard text-books, it evidently being the design of the author to require the student to employ his book as a guide only and not as an exhaustive treatise.

The book belongs to the syllabus class and is of especial value in the laboratory presided over by the author. In another laboratory conducted by another teacher the exercises would possibly not be found to follow the same order; some might be found more complete, others less complete, and still others omitted altogether. For a person who wishes to go over bacteriological technique in a laboratory of his own without a teacher, we conceive that Mr. Frost's guide would be a valuable addition to a text-book. [J. M. S.]

The Artificial Feeding of Infants, Including a Critical Review of the Recent Literature of the Subject. By Charles F. Judson, M. D., Physician to the Medical Dispensary of the Children's Hospital, and J. Claxton Gittings, M. D., Assistant Physician to the Medical Dispensary of the Children's Hospital. Philadelphia: J. B. Lippincott Company. 1902.

This little book, absolutely original in idea, is a most complete monograph upon the artificial feeding of infants. All articles which have appeared from 1894 to 1901 and many articles of importance published before that time, have been abstracted. These abstracts have then been tabulated, making up over two-thirds of the book. This naturally makes exceptionally interesting reading, especially for the busy practitioner who has time only for "points." On this account it is much more valuable than that huge work edited some years ago by Dr. Henri de Rothschild, which, while somewhat similar in idea,

contains much more material, generally not sufficiently well abstracted.

After a short chapter on the history of artificial feeding, chapters follow on mother's milk, cow's milk, digestion, modern methods of infant feeding, the care of the milk, bacteriology, sterilization and pasteurization, weight and growth of the infant and feeding of premature infants. The material thus far comprises mainly abstracts of the opinions of the various pediatricists. Now the authors draw conclusions upon the principles of infant feeding from the rich material already abstracted. Modern methods for the home modification of milk follow, a chapter of especial value to the ordinary physician. Here sufficient details are given to be of decided service to the medical man with an infant under his care whose food is probably the cause of its not thriving. Practical rules for infant feeding, explaining the principles of cleanliness; analyses of the artificial proprietary foods; and an appendix giving the mode of preparing most of the fluid foods suitable for infants end this little book, which has appeared at just the right time, when the average general practitioner is beginning to realize that he must soon learn something about a more scientific method of feeding infants than the simple, often arbitrary, dilution of milk. To just such physicians will this book prove invaluable. It contains the reports of what must have been a long and tedious search through the literature, successful withal, as one gleams from a perusal of the abstracts, for which painstaking work all who read the book will praise its authors.

While an overwhelming amount of foreign material has been abstracted, including much by Monti, Marfan and Cautley, it is noticeable that the most valuable articles, containing the most modern ideas upon the artificial feeding of infants, are written by Americans. The pediatricist, besides, will find this a good book of reference, containing, as it does, all that has been written upon artificial feeding up to date. It is, perhaps, needless to add that the book is exceptionally well gotten up, in large type, wholly free from typographical errors. [M. O.]

The Cause of Blindness in France.—A Trousseau has given a full description of the causes of blindness in France in *La Médecine Moderne* (May 7 and 14, 1902.) His statistics, all of which are accurate, comprehend details of the histories of 3,763 blind persons. Of 627 blind inmates of the Hospice des Quinze-Vingts, blindness was due to disease of the optic nerve in 132, to disease of the conjunctiva in 125, to glaucoma in 59, to disease of the iris and choroid in 57, to traumatism in 54, to congenital disease in 44, to corneal disease 44, to operation in 30 and to sympathetic ophthalmia in 14. Of those due to disease of the optic nerve 54 were tabes, of those due to conjunctival disease, 119 were from purulent ophthalmia. Corneal disease generally followed tuberculosis and smallpox. Iritis and choroiditis followed syphilis, rheumatism and myopia. Of those due to retinal disease, 37 followed detachment. In a few cases blindness seemed hereditary. Syphilis is frequently the cause of papillary atrophy. The great number of patients became blind between 30 and 60 years of age. His collected statistics give 21% of cases due to disease of the optic nerve, 19% to glaucoma, 13% to disease of the iris and choroid, 11% to conjunctival disease, 8% to corneal disease, 6% to congenital disease and 6% to retinal disease. Glaucoma and atrophy of the optic nerve each give 19% of cases. Of the 3,763 blind persons, 760 were children, 2,291 men, 1,472 women. The men furnished 60%, adults 67%. The most general cause of blindness in children is purulent ophthalmia; in adults, atrophy of the optic nerve; and in old people, glaucoma. Monocular blindness is due to traumatism in 20%; disease of the iris and choroid in 15%; disease of the retina in 15%; and disease of the conjunctiva in 13%. The common causes are myopia, detachment of the retina and iridochoroiditis. He gives a mass of figures and tables of statistics. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

A Resignation.—Dr. Alice Seabrooke has resigned the position of directress of the training school for nurses in the Methodist Episcopal Hospital, Philadelphia. She has been appointed to the position of medical superintendent of the Hospital of the Woman's Medical College. Dr. Seabrooke has held the position at the Methodist Hospital for several years, and has given great satisfaction. She is a graduate in medicine of the Woman's Medical College, of Philadelphia.

The Municipal Hospital. The sub-committee of councils has decided not to urge the new site in the 35th. ward, on account of the immense number of protests. Petty's Island is now mentioned as a probable site, both for the Municipal Hospital and the Philadelphia Almshouse. This has, however, raised much opposition in New Jersey. Another site suggested is in the extreme southern end of the city, below League Island, along the Delaware River.

Philadelphia County Medical Society. At the last business meeting, held June 11, the delegates from the Philadelphia County Medical Society to the Medical Society of the State of Pennsylvania were instructed to vote unanimously for Dr. William M. Welch, ex-president of the Philadelphia County Medical Society, for the office of president of the Medical Society of the State of Pennsylvania.

NEW YORK AND NEW JERSEY.

University of Rochester. At the commencement exercises, held June 18, the honorary degree of LL. D. was conferred upon Dr. L. Emmett Holt, professor of diseases of children, in the college of Physicians and Surgeons, Columbia University. Dr. Holt was graduated from the University of Rochester, A. B., in 1875, and A. M. in 1878.

Loomis Sanatorium. Dr. J. E. Stubbett, who has been physician-in-charge of the Loomis Sanatorium, since its opening, in 1896, has tendered his resignation, but will continue as a member of the Medical Board, which consists of 10 other New York physicians.

Princeton University. At the 155th. annual commencement, recently held at Princeton, a tablet was unveiled in Marquand Chapel, bearing the following inscription:

NIKA

In Memory

of

George Yardley Taylor,

Class of 1882.

Cortlandt Van Rennselaer Hodge,

Class of 1893.

Medical Missionaries

Killed by native Insurgents at Paoting-Fu, China, June 30, 1900.

"These are they which came out of great tribulation."

The tablet, which is of bronze on a green marble background, was accepted by President Patton.

The American Proctological Society. At the recent meeting, held in Saratoga, June 10, the following officers were elected for the ensuing year: President, Dr. S. T. Earle, Baltimore; vice-president, Dr. F. W. McRae, Atlanta, and secretary and treasurer, Dr. W. M. Beach, Pittsburg.

Two Psychopathic Hospitals. The New York State commission in lunacy, is preparing to establish 2 reception or psychopathic hospitals in New York City, one in Manhattan, for 200 patients, the other in Brooklyn, for 100 patients. With the exception of a ward in the Albany Hospital, there are no such hospitals in this country. The object of these hospitals is the early treatment of insanity, patients being at once placed under the care of skilled alienists.

NEW ENGLAND.

Harvard University. At the commencement exercises, held June 25, the honorary degree of A. M. was conferred upon Dr. Walter Reed, surgeon in the United States Army, whose work upon yellow fever is so well known. Dr. Reed is a graduate of the Medical Department of the University of Virginia.

Children's Home, Stanford, Conn. A Pittsburg iron mer-

chant, H. K. McHarg, has given \$25,000 to the Children's Home, at Stanford.

Yale University. At the commencement exercises, held June 25, the honorary degree of LL. D. was conferred upon Dr. Roswell Park, professor of surgery in the University of Buffalo.

Boston Floating Hospital. The trips of the floating hospital will probably begin July 8. The services of a competent physician have been secured who will be upon the boat day and night. A large corps of nurses has been engaged for the season. Subscribers giving \$100 and \$150 have the privilege of naming the day, paying the expenses on that occasion. As this charity is an exceptionally worthy one, subscriptions are constantly being solicited.

Williams College. At the commencement exercises, held June 25, the honorary degree of LL. D. was conferred upon Dr. Leonard Wood, late Governor-General of Cuba.

WESTERN STATES.

Smallpox in Glandorf, Ohio. Fifty cases of smallpox, almost half of the entire population of the town, were reported, June 20, with 2 deaths. The town is strictly quarantined, no trains stopping there.

Arsenic in the United States. We have been informed of an error which appeared in our issue of June 7. We stated that the manufacture of arsenic is one of our new industries, having been begun in 1901, by the Puget Sound Reduction Company, at Seattle, Washington. We have since learned that the plant of the Puget Sound Reduction Company is not located in Seattle, but in Everett.

Smallpox in Portland, Ore. Upon June 2, over 18 cases of smallpox were still under treatment in Portland, Ore. During the month of May, 26 cases were reported. This makes 148 cases of smallpox in Portland up to June 1, 1902.

Scarlet Fever in Ohio. An epidemic of scarlet fever, starting in Cincinnati, has, during the past few weeks, spread through Ohio, in spite of the precautions taken to confine the disease within limits. The health authorities have investigated the cause of the spread of the infection, and have concluded that pigeons were the means of spreading the contagion. This theory is based upon the fact that all the live stock, except the pigeons about the house, in which a number of cases were confined, was quarantined.

MISCELLANY.

Cholera in the Philippines. Up to June 29, 1740 cases of cholera, with 1385 deaths, occurred in Manila, while 9444 cases with 7038 deaths developed in the provinces. Lieutenant Colonel Maus says that there have been probably 2000 more deaths in the provinces, records of which have never been kept. The natives tried to conceal the existence of cholera, and on that account absolute authority has been given the medical officers of the Army. In the city of Manila, containing over 300,000 inhabitants, the deaths in any one day have not exceeded 30, while in the provinces the death-rate has been double this. Quarantine regulations now make it almost impossible to get in or out of Manila. Up to May 12, the provincial medical board had succeeded in keeping cholera out of the province of Albay, a strict shotgun quarantine having been adopted. Though the cholera has twice appeared on shipboard in ports of the province, no communication with the shore was permitted. In Colonel Maus' last report, dated May 15, the death-rate, 6.01, among the soldiers, is less than for any month on record.

Plague in Egypt. A report, dated May 19, shows 58 cases of bubonic plague, with 35 deaths for the 2 weeks previous. Cairo is free from the disease. Since April, 1901, 601 cases of plague have occurred in Egypt, with 359 deaths.

Yellow Fever in Mexico. Yellow fever has been epidemic for several months in Vera Cruz and Coatzacoalcos. Some work is being done in Vera Cruz to eradicate mosquitoes. A number of Americans have died at Coatzacoalcos, though the death-rate is low. A case of yellow fever appeared on the steamship *Vieland*, at Cienfuegos, Cuba. The patient was removed to the city Lazaretto. The steamer was disinfected and left for Boston. The probable source of infection, in this case, was Vera Cruz.

Cholera at Port Arthur. In a despatch from Port Arthur,

dated June 29, an epidemic of cholera is reported. The disease caused the deaths of over 400 people, nearly 300 of whom were Europeans. The captain of the British vessel *Hinan* is blamed for having brought the disease to Port Arthur.

X-rays for Leprosy.—The Honolulu Board of Health is soon to institute experiments upon X-rays as a cure for leprosy. It is believed that the X-rays may prove specific in the early stages of the local skin lesions. A physician from the U. S. M.-H. S. and an expert from an Eastern medical college have been invited to attend the experiments.

The Water Supply of Steamships.—Most people imagine that sterilized, distilled water is the only water on ship-board. This is, however, not true, since nearly all steamships fill their tanks in port and trust to imperfect filtration methods for its purity. Several cases of typhoid fever reached Egypt during the winter upon steamships, the patients without doubt having been infected by the drinking water. This is a question with which sanitary authorities of the ports from which steamers sail might wisely be concerned.

Lepers in Straits Settlement. Lepers are not allowed to carry on the trades of baker, butcher, cook or any trade which causes the handling of articles of food, drink, drugs or tobacco; washerman, tailor or any trade in which the person employed comes in contact with wearing apparel; barber or any similar calling in which the person employed comes in contact with other persons; domestic service, nurse, jinrikisha puller or licensed cabman.

State Consumption Sanatorium.—Many States have sanatoria for the treatment of consumption. The Massachusetts institution claims that its percentage of cures has increased 1/3 in 3 years. New York has appropriated \$150,000 for the erection of a State sanatorium in the Adirondacks. Pennsylvania has appropriated \$100,000 and New Jersey \$50,000 for a similar purpose. Vermont is considering a project for the erection of a similar institution.

Obituary.—Dr. Hubert F. Prager, at Brooklyn, N. Y., June 22, aged 52 years.—Dr. Alban Vaughan Elliott, at Florence, Italy, June 20, aged 65 years.—Dr. Charles F. Briggs, at Sullivan, Ind., June 21.—Dr. George W. Ludwig, at Baltimore, Md., June 23, aged 42 years.—Dr. John T. Winter, at Baltimore, Md., June 23, aged 60 years.—Dr. Alexander M. Mecray, at Camden, N. J., June 26, aged 63 years.—Dr. Ernest Potter Jenks, at New York City, June 25.

GREAT BRITAIN, ETC.

The Huxley Lectures.—Dr. William H. Welch, of Johns Hopkins University, has been chosen to deliver the Huxley lectures for this year. Previous lecturers have been Lord Lister, Sir Michael Foster, and last year Professor Virchow.

Trachoma in England.—Dr. Tyrrell, of the Royal Ophthalmic Hospital, has informed the Alien Immigration Commission that trachoma is largely a disease of race, and half the cases are among the Jewish race.

The Rural Population of England.—For every 100 people who live in the country in the United Kingdom, 258 live in towns.

Migration From Yorkshire.—The Census returns for Yorkshire show that during the past 10 years the county has lost over 10,000 persons, on the average, by migration.

British Medical Association.—At the 70th. annual meeting, to be held at Manchester, July 29 to August 1, 1902, Dr. T. M. Rotch, professor of pediatrics in the Harvard Medical School, will open the discussion upon milk modifications in the feeding of infants.

Ophthalmological Society. The Bowman lecture was delivered June 13 by Professor E. E. Fuchs, of the University of Vienna. Dr. David Little, the president of the society, was in the chair. A dinner in Dr. Fuchs' honor was given after the meeting.

The New Simla Hospital. The Walker Hospital for Europeans, at Simla, was opened for the reception of patients May 1. The official opening will take place later.

Microbes on Scotch Bank Notes. Scotch banks, unlike the Bank of England, re-issue old notes again and again, apparently not objecting to the uncleanness of the practice. On one note some time ago 30,000 microbes were counted in the space that a sixpence would occupy, including germs of some virulent diseases.

Measles in Edinburgh. During May and June, the epi-

demic of measles which had existed for a few weeks in Edinburgh has become widespread. Not only are all classes of society affected, but there appears to be an unusual number of cases among adults. The amount of measles already reported this summer has been altogether unprecedented. These cases are, however, benign in type, complicated with but few pulmonary symptoms. Otitis media and laryngitis occurred frequently.

CONTINENTAL EUROPE.

The Plague at Dunkerque, France. Four cases of bubonic plague have occurred June 12, on the steamship *City of Perth*, which arrived from India, June 11. The crew, consisting of 70 men, almost all Indians, has been vaccinated and the steamer disinfected.

An Epidemic of Cancer. Dr. Charcot, of Paris, is one of the party which has left for the Faroe Islands, in order to make a special study of an epidemic of cancer which, it is reported, has appeared there.

Swiss Medical Congress.—The annual spring meeting of the Central Committee of the Swiss Medical Congress was held at Berne, May 30 and 31, at which 200 medical men were present from various parts of Switzerland. Professor Kocher demonstrated a large number of surgical cases at his clinic. After having shown these cases, he concluded with an address on the operative results of diffuse peritonitis. He also spoke upon operation in exophthalmic goiter, showing a half dozen cases. Professor Sahli spoke on the diagnosis and treatment of aneurysm of the aorta, disapproving strongly of gelatine injections. He discussed the diagnosis of diseases of the gastro-intestinal tract in detail. The new children's hospital was shown by Professor Stooss, who spoke of infantile scurvy, which is rare in Switzerland. He showed an interesting form of skin tuberculosis in infants. Professor Kocher reviewed the subject of primary tuberculosis of the intestine, having collected 80 cases. He reported 29 cases, on 21 of which he had operated. He advised sterilized milk for patients with intestinal ulceration, probably due to tuberculosis. Drs. Girard, of Berne, and Müller, of Basel, spoke upon the legal and ethical sides of the question of professional secrecy.

A Hospital Strike.—The nurses in the infectious disease hospital at Zaandam, Holland, went on strike recently, actually fleeing from the institution, leaving the patients without care. The mayor of the town, not knowing what to do, telegraphed to a monastery and monks were sent to take charge of the patients.

The Cure for Stuttering. In various German schools courses of treatment for the cure of stuttering have been instituted, and in Berlin 6 specialists have been engaged by the Municipal Board of Education, devoting 12 hours weekly to the work. It is estimated that 1½% of the children attending German schools stutter. Two systems of treatment are being tried; one gives a vocal drill in sounds that the children find it most difficult to utter. The other method deals with stuttering as if it were a nervous disorder, which can be remedied by change of diet, especially by diminishing the amount of meat, by open-air exercise, etc. By the latter method, after 3 weeks' treatment, 50 out of 93 were almost entirely cured.

A Race of Pigmies. Professor Thilenius, of Breslau University, declares that in Central Europe there was a race of pigmies down to within 1,000 years of our own times. Healthy and well-proportioned individuals of both sexes, measuring not more than 4 feet 5 inches in height, were by no means rare.

Bubonic Plague at Marseilles.—The mail steamer *Camboye* arrived at Marseilles June 16, from the Levant, with 2 cases of bubonic plague on board. The vessel was detained at quarantine. She had been refused admission at Constantinople and at the Piraeus.

Christian Science Legal in Switzerland.—As a result of a lawsuit in Zurich, the Supreme Court of the Canton Zurich has rendered a decision, reversing former decisions of the lower courts fining Christian Scientists, which decision virtually places the practice of Christian Science upon a legal, authorized footing throughout the Canton.

Obituary. Dr. Ferdinand Sommer, formerly director of the Anatomical Department of the University of Greifswald, died recently, aged 74 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

June 14, 1902. (No. 2163).

1. The Relation of Purin Bodies to Certain Metabolic Disorders. I. WALKER HALL.
2. The Edema of Anemia. THOMAS HOUSTON.
3. Abstract of a Report on the Formation of Lymph by the Liver. F. A. BAINBRIDGE.
4. Remarks on a Case of Hereditary Localized Edema Proving Fatal by Laryngeal Obstruction.
T. WARDROP GRIFFITH.
5. Malarial and Filarial Diseases in Barbadoes, W. I.
GEORGE C. LOW.
6. Note on Media for Distinguishing B. Coli, B. Typhosus and Related Species.
ALBERT GRUENBAUM and EDWARD H. HUME.

1.—The quantitative relation between the purin bodies in the food and those excreted in the urine has been recently worked out by one or 2 observers, but the difference found by them does not equal the amount of purin present in the food and it thus appears that only a definite percentage of the food purin passes through the body unaltered. The remainder is excreted, in all probability, as allantoin, oxaluric acid or urea. Eggs contain neither free purin nor purin yielding substance. Butter and cheese are derivatives from milk and so may contain traces of nuclein bodies. Eggs, butter, cheese and milk form the most valuable means of withholding purin substances from the body and yet allow the provision of a diet at once digestible, easily absorbed and capable of maintaining nitrogenous equilibrium. It is probable that much more purin is taken with cooked meat than exists in the freshly killed muscles. Although certain differences occur in the percentage contents of fish and meats, little variation exists between those known as red and those known as white meats. The glandular organs yield large amounts of purins. Amongst the vegetables the somewhat high percentage of beans, peas and oatmeal have been discovered. The alloxur bodies of asparagus have already been pointed out. The presence of purin bodies in beers is probably due to the yeasting and the process of manufacture. The following foods and beverages have been found to be free from purin bodies: Bread, rice, tapioca, cabbage, lettuce, cauliflower, claret, volnay, sherry and port. Hall then proceeded to a study of the exogenous purin in normal metabolism. His subject was 33 years old and was passing urine free from albumin and sugar. From his investigations it appears probable that, allowing for the variations that occur in different animals as well as in separate species, the system excretes in the urine in 48 hours about $\frac{1}{2}$ of the fish, fowl and beef purins contained in the food. The studies also indicate that the purins or alloxur bodies of fish, fowl and flesh undergo similar chemical or chemicovital changes during their passage through the human body. Although it is customary to regard vegetables as comparatively harmless in gout and nephritis, the purin contents of many of them will indicate that they are not so harmless as they were thought to be. It is therefore apparent that in the formation of dietaries, particularly in regard to metabolic disorders, the purin contents of food stuffs should be considered equally with their proteid percentage. As the addition of foods containing known quantities of purin bodies to a purin-free diet results in an increased egestion of urinary purin, varying with the nature of the food and perhaps also with the individual, the question of the disposition of that portion which is not excreted as urinary purin arises. In answer to this question, the author believes that the present condition of our knowledge indicates that it is first oxidized, later decomposed by the liver and finally excreted as urea, allantoin and oxybutyric acid. The exogenous purin can be controlled in a diet, but concerning the endogenous purin little is definitely known as yet. Leukocytic destruction probably affects its quantity but slightly. There is a certain amount of evidence that points to its variation with nitrogenous excretion and it may perhaps be taken as an index of the functional activities of the body. [J. M. S.]

2.—Houston reports a few cases illustrating the well-

established facts that the edema of Bright's disease comes and goes without simultaneous changes in the blood of the kind noticed in cases of anemia. There must be, no doubt, changes in the blood during the formation of edema, but these changes are of such transient nature owing to the blood's remarkable power of correcting any tendency to dilution that they are hard to detect by the methods at our disposal. He then reports 10 cases of chlorosis in which it is shown that the average patient will lose about 4 pounds in weight before beginning to gain after treatment has begun. In a case of splenic anemia the blood presented a condition of chlorosis. During the first 14 days in the hospital the patient passed from 40 to 50 ounces of urine in 24 hours. During this period he was supposed to be gradually dying, but during that time he gained $1\frac{1}{2}$ pounds. On the succeeding 2 days he passed over 300 ounces of urine and had some diarrhea and melena. He then began to improve and was weighed 4 days later and found to have lost 11 pounds, probably because of the loss of fluid by the kidneys and bowel. He then began to increase in weight steadily and at the same time his hemoglobin gradually rose and the increase was inversely as the percentage of lymphocytes and directly as the percentage of polymorphonuclear leukocytes. The great loss of fluid came indirectly from the blood from the water-logged tissues and by its removal made it possible for the blood to concentrate and so improve. In a case of pernicious anemia the weight furnishes no indications of the patient's progress unless it is taken in conjunction with the hemoglobin value of the blood. In a case of secondary anemia due to hemorrhage, it is quite possible to distinguish the condition from pernicious anemia by blood examination. The absence of loss of weight in anemic conditions and the fact that the patient seldom seems emaciated is mainly due to the fact that there is abnormal accumulation of fluid in the blood and tissues. If this excess of fluid were deducted, it would probably be found that in these, as in other chronic illnesses, there is a progressive loss of weight in proportion to the severity and duration of the disease. In the cure of such anemic conditions, especially chlorosis, the first stage seems to be the getting rid from the blood and tissues of this excessive fluid. A gain of weight in a case of pernicious anemia under treatment without improvement in the hemoglobin is to be regarded as an unfavorable sign, indicating dilution of the blood and consequent escape of serum into the tissues. It may, however, be a critical phase of the disease and indicate the first step toward concentration of the blood. Immediately after this sudden increase in edema there is either a marked improvement or the patient dies. The edema of anemic conditions seems to result from an hydremic plethora of the blood and is somewhat different in origin and nature from the edema usually found in Bright's disease. Careful observations in the manner indicated in anemic conditions, a record of weight and the hemoglobin value of the blood, may furnish very interesting results. The points to direct attention to are the occurrence of hemorrhage, edema, diarrhea and profuse sweating. These conditions are often the result of dilution of the blood and may be merely Nature's method of counteracting the excessive and abnormal amount of the blood. [J. M. S.]

3.—Bile salts do not belong to either of Heidenhain's classes of lymphagogues. On the other hand, bile salts do increase the metabolism of the liver and also the formation of lymph. In this respect they constitute a third class of lymphagogues. Bainbridge has concluded that, although bile salts may stimulate the hepatic capillaries to secrete lymph, the experiments do not support the view. [J. M. S.]

4.—Griffith reports the case of a young woman, aged 18 years, in 1886, who at that time presented edema of the right arm and hand and who was suffering from dyspnea. There was no albuminuria. Examination with the laryngoscope showed great edema of the mucous membrane of the larynx. By evening this edema had entirely disappeared. The swelling of the arm rapidly subsided and the patient was discharged well at the end of 5 days. The patient had been subject to localized swellings of various parts of the body since infancy; her father, also, presented similar swellings. There was no indication of constitutional disturbance. In 1890, she had an attack of edema involving the face and throat caused by traumatism. In 1891, she had swelling of the face and larynx due to toothache.

The patient married and had 3 children. Her pregnancies had no influence upon the condition. In 1902, she complained of an attack in which her throat felt swollen. Two hours after it began she died suddenly; in exactly the same way that her father had died. At the autopsy, the mucous membrane of the larynx was found to be edematous, tense and pale, so that the 2 sides of the larynx were in contact with each other. The true vocal cords were decidedly affected by the process. Transverse section of the larynx showed that the edema affected the mucous membrane, the deeper connective tissue and even the substance of the muscles. [J. M. S.]

5.—The analogy between malaria and filariasis is in many ways close. It is interesting to point to Barbadoes, where malaria is non-existent while filariasis is quite common. The reason for the presence of one and the absence of the other disease is supplied by the fact that anopheles mosquitoes, the definite host of the malarial parasite, are not found on the Island, whereas culex fatigans, one of the suitable intermediate hosts of the filaria nocturna, abounds. This fact seems to go to prove that malarial fever cannot exist without anopheles mosquitoes. Out of more than 600 blood examinations from all parts of the island, 76, or 12.66%, were found to be infected. Only filaria nocturna was found. White people are quite susceptible to the disease. Low dissected 100 specimens of culex fatigans and found 23% infected with filaria nocturna in various stages of development. In one specimen mature forms were found in the proboscis, indicating the danger of being near infected people. If there is a perfect water supply in a community, in which filariasis exists, old wells should be filled up, no water barrels or tubs should be allowed and tanks and collections of water in gardens should all be periodically treated with kerosene or should be furnished with closely fitting covers to keep out the mosquitoes. [J. M. S.]

6.—Grünbaum and Hume find that for ordinary working purposes MacConkey's medium with neutral red seems to give the best results in the differentiation between the bacillus coli communis and the bacillus typhosus. For demonstration purposes, a medium containing both neutral red and Krystall-violett gives very striking and instructive pictures. The chief use of such a medium is for the examination of feces or any other substance suspected of containing intestinal bacteria. [J. M. S.]

THE LANCET.

June 14, 1902.

1. The Presidential Address on the Annual Variation of Puerperal Fever Compared with that of Some Allied Diseases. A. L. GALABIN.
2. An Address on the Treatment of Pulmonary Tuberculosis by Hygiene. C. THEODORE WILLIAMS.
3. Gold Miners' Phthisis and Some of the Dangers to Health Incidental to Gold Mining in the Transvaal. THEODORE OLIVER.
4. Early Peritonitis. WILLIAM HENRY BATTLE.
5. The Relations of Mental Symptoms to Bodily Disease. NATHAN RAW.
6. The Treatment of Early Mental Cases in a General Hospital. J. W. SPRINGTHORPE.
7. Temporary Reminiscences of a Long Forgotten Language During the Delirium of Bronchopneumonia. HENRY FREEBORN and C. A. MERCIER.
8. The Influence of Age Upon the Incidence of Optic Neuritis in Cases of Intracranial Tumor. H. DOUGLAS SINGER.
9. Observations on Diet. HARRY CAMPBELL. III.

1.—Galabin makes an interesting comparison between the annual variation of puerperal fever and that of some allied diseases. From the table there would appear to be a distinct association of dry seasons with maximum mortalities of the 5 diseases studied, namely: Erysipelas, general septicemia and pyemia, scarlet fever and acute rheumatism. This connection, however, has not been apparent since 1894, having probably been overbalanced by an improved mortality. If very dry periods promote the spread of microbic diseases, the probable conclusion is that they do so by aiding the dissemination of microbes in the form of dust. In scarlet fever drought may directly pro-

mote contagion by the spread of dust, but in septic diseases and rheumatism the effect only appears after an intervening rain-fall and lapse of time. The death-rate per 1,000,000 in England and Wales for puerperal fever is 75, for erysipelas 54, for septicemia and pyemia 13, for scarlet fever 247, and for rheumatic fever including rheumatism with affection of the heart and pericardium, 88. For London the mean death-rate of puerperal fever is 9.3 per cent. lower than for England and Wales; of erysipelas 14.7 per cent. higher; of septicemia and pyemia 46.4 per cent. higher; of scarlet fever 0.8 per cent. lower; and of acute rheumatism, identical. Galabin remarks that while a satisfactory improvement in the mortality of puerperal fever has occurred for the first time within the last 20 years, a further development of antiseptic midwifery is still required in England and Wales outside London to make the improvement equal to that already attained in other septic diseases. Also that the relation of fatal puerperal fever to erysipelas is still closer than has been generally supposed, and much closer than that of either disease to septicemia and pyemia generally. A consequence of this seems to be that an antistreptococcic serum derived from erysipelas would be more likely to be useful in puerperal fever than one derived from any other source of streptococci except puerperal fever. [W. A. N. D.]

2.—Williams delivered the address on the treatment of pulmonary tuberculosis by hygiene, before the Cardiff Medical Society, on May 29, 1902. By treatment by hygiene he implies the open air treatment and prefers the former term. He thinks it more comprehensive and more correct than the latter and he makes a distinction between it and climatic treatment. In this discussion of the open air treatment he points out that it is suitable not only for cases of early and limited tuberculosis, but that its benefits are shown in cases of extensive tuberculization. He has observed that in patients suffering from active tuberculous disease accompanied by evening fever, when placed on couches in shelter, the pyrexia, in most instances, subsided after some weeks in the open air. Abundant and forced feeding is also of great importance. Rest and exercise must be prescribed and carefully regulated from time to time, to suit the individual in question. He thinks that sanitary buildings should be located on sloping ground well sheltered to the north and east from cold winds, with plenty of sun exposure. He writes that we must not, however, expect too much from the hygienic treatment of consumption. There are forms of phthisis, such as the catarrhal variety, in which hygienic treatment fails to accomplish much and in which the help of a warm climate and good nursing are necessary for success. But this treatment is one which is well adapted to the majority of cases of lung tuberculosis, and, when combined with good climatic conditions like those of high altitudes, it certainly tends to accomplish great things. [F. J. K.]

3.—Oliver discusses gold miners' phthisis and some of the dangers to health incidental to gold mining in the Transvaal. He writes that this condition, "gold miners' disease of the lung," resembles closely stone masons' and steel grinders' phthisis, and is due to the inhalation of dust. It develops slowly and its early symptoms are cough, mucus expectoration, increased difficulty in breathing, slight asthmatic attacks, impairment of appetite, slight or no emaciation, fever during the terminal stage and increased rapidity of the pulse. He points out that night sweating does not occur and that the illness may persist for several months without the patient losing weight, and, often, the appearance of the patient is that of a healthy individual, but he is unfit for work on account of the dyspnea which arises on slight exertion. The lesion in the lung found in gold miners' phthisis may involve any part, but generally shows less predilection for the apex than for other areas. He discusses the physical signs and points out that in the individual suffering from this disease there can usually be detected distinct areas of dulness in limited portions and physical signs of limited consolidation due to fibrosis of the lung. He then discusses the dangers incidental to gold mining and outlines the treatment as follows: It is most important that the affected gold miner should renounce work in the very early stage of his illness and follow outdoor employment. Good food and fats are

desirable, while Fowler's solution with nux vomica and potassium iodide may be of service. [F. J. K.]

4.—Battle, in a clinical lecture, discusses the importance of an **early diagnosis of peritonitis**, referring to the frequency with which symptoms of perforation of the appendix are overlooked and reporting briefly 4 cases which illustrate his remarks. In each of these cases there was a purulent peritoneal exudation of considerable amount within a few hours of the commencement of the illness, and in 3 of them a perforation of the appendix was present, and in the fourth an acute inflammation of this organ without perforation. In a large number of these cases the symptoms are insidious and do not become marked until the patient is in a very serious condition. Stress is laid upon the importance of the early recognition of peritoneal effusion. [J. H. G.]

5.—Raw discusses the interesting subject of the **relation of mental symptoms to bodily disease**. At some length he reviews the mental symptoms which occur in pulmonary tuberculosis, in heart disease, in kidney diseases, in acute exophthalmic goiter, in myxedema, in diabetes, in chorea, in acute infectious fevers, and emphasizes the fact that the mental symptoms which arise in the course of a disease are often part of the disease and require treatment as the disease itself, and he further emphasizes that, after a long observation of lunatics—and he has personally certified over 2000 patients to asylums—he is firmly convinced that a large number of people are certified as lunatics throughout the country who are simply suffering from temporary insanity, the result of, or associated with, some form of bodily disorder or toxic poisoning. These people are not really insane and should not be associated with lunatics. They quickly recover after proper treatment and he maintains that from every point of view it would be to the public advantage for them to be treated in a hospital for mental diseases, with expert physicians in attendance and clinic of students to study the acute phases of mental disorders, and where the patient and his relatives might be spared the stigma of his having been detained in a public lunatic asylum as a certified lunatic. [F. J. K.]

6.—Springthorpe writes on the **treatment of early mental cases in the general hospital**. He mentions that the advantage of treatment of patients presenting early mental symptoms in the general hospital are: (1) There is no necessity to wait until some unfortunate accident, *lache*, or crime necessitates the tardily-written certificate. Treatment is thus available much earlier than usual—a point the importance of which to the patient, to his friends, and to the community can scarcely be overestimated. (2) It places "borderland" and early cases under the same therapeutic conditions that have been found efficacious against the kindred hysteria, cerebraesthesia and bodily disease generally, and it gives the patient greater opportunity of having frequent co-existing or causative bodily disease properly and promptly attended to. (3) It does away with the false distinction between mental and bodily disease and it altogether avoids the stigma and disgrace attaching to "lunatic" and "asylum." (4) There is no signing of certificates with its, at times, serious sequelæ to both patients and medical men, and the natural convalescing ground, the home, is much earlier and more readily available. [F. J. K.]

8.—Singer contributes a paper on the **influence of age upon the incidence of optic neuritis in cases of intracranial tumor**, and from his analysis of cases he draws the following conclusion: That absence of optic neuritis in intracranial tumor, exclusive of those occurring in the pons, is rare in patients under 40 years of age, and becomes increasingly more frequent after that period of life. [F. J. K.]

MEDICAL RECORD.

June 28, 1902.

1. The Differential Diagnosis of Typhoid and Malarial Fevers, with Especial Reference to the Occurrence of Both Diseases in the Same Patient; with Report of Cases. ISAAC IVAN LEMANN.
2. Combined Transverse and Longitudinal Incision in Median Laparotomy, with the Object of Preventing Ventral Hernia. LEWIS A. STIMSON.
3. Empyema of the Antrum of Highmore with Ptosis and Diplopia, Etc. HEBER NELSON HOOPLE.

4. A Word About American Mineral Waters and Mineral Spring Resorts. JAMES K. CROOK.

5. The Characteristics and Tendencies of Modern Medical Progress in America. JONATHAN WRIGHT.

1.—Lemann presents a paper dealing with the differential diagnosis of **typhoid and malarial fevers** and reports cases of the 2 diseases occurring in the same patient.

[T. L. C.]

2.—Stimson recommends the combined **transverse and longitudinal incision in median laparotomy**, with the object of preventing ventral hernia. The operation consists of a curved transverse incision through the skin, aponeurosis and sheath of the recti, followed by the usual longitudinal separation of those muscles and the division of the peritoneum. The incision crosses the median line about 4 centimeters above the upper margin of the symphysis pubis and extends on each side toward the anterior superior spine of the ilium to a distance varying with the amount of subcutaneous fat. It is then carried through the aponeurosis and sheath of the rectus on each side, its outer portion following the direction of the fibers of the aponeurosis and the deeper portions not extending beyond the outer edge of the rectus and the upper flap thus outlined is raised from the muscles by division of its attachment to the septum constituting the linea alba. The sheath below the incision is similarly freed toward the symphysis. The recti are then separated and the peritoneum divided in the median line in the usual manner. In Stimson's paper the technique of the operation is given in detail. [T. L. C.]

3.—Hoople presents the full clinical notes of a case of **empyema of the antrum of Highmore with ptosis and diplopia**. He discusses especially the effect of treatment on the ocular disturbances. [T. L. C.]

4.—Crook gives the comparative analysis showing the **potency of representative American and European mineral spring waters**. With the single exception of the **sulphated saline waters** those of the American springs are superior. Crook calls attention to the fact that our own resorts are far behind the European in the regimes at the various springs. [T. L. C.]

MEDICAL NEWS.

June 28, 1902. (Vol. 80, No. 26.)

1. Medical Etiquette at the Dispensary Clinic. THOMAS J. HILLIS.
2. The Local Treatment of the Organs. BYRON COAKLEY.
3. The Cause and Manner of Death in Epilepsy. WILLIAM P. SPRATLING.
4. General Enteroptosis. ROBERT T. MORRIS.

THE NEW YORK MEDICAL JOURNAL.

June 21, 1902. (Vol. LXXV, No. 25.)

1. Difficulties in the Diagnosis of Certain Febrile Diseases. GLENTWORTH R. BUTLER.
2. Gastroptosis the Cause of Symptoms Erroneously Attributed to Nephroptosis. ACHILLES ROSE.
3. Permanent Results, Failures and Relapse Following Bottini's Operation for the Relief From Prostatic Obstruction. F. KRIESSEL.
4. The Hygiene of Pregnancy. CHARLES E. PADDOCK.
5. Cerebral Localization and Brain Function. L. HARRISON METTLER.

1.—Butler, in his 10 cases, of which clinical summaries were given, with comments on the difficulties of diagnosis in each, forms a rather heterogeneous collection. But by adding a number of similar cases, of which some record has been kept and collating them with reference to their pathological character, it is possible to divide them into four groups, viz., those in which the febrile symptoms were due: (1) To concealed suppuration; (2) to tuberculous infection; (3) to irregular forms of typhoid fever; (4) to malignant endocarditis. A certain conclusion of practical value can be justly drawn even from such a brief necessarily sketchy study as this. The conclusion is empirical and belongs, perhaps, to the rules-of-thumb. Nevertheless, when one stands in perplexity at the bedside of an obscure febrile case, it may bring, and has brought, light from darkness, to bear in mind, and examine most carefully for, the

evidences of concealed suppuration, tuberculosis, irregular typhoid fever and malignant endocarditis. [T. M. T.]

2.—Rose quotes from Cordier (1) A movable kidney often produces a dilated stomach, with all the accompanying symptoms of a disease of the latter; (2) it is a fruitful source of gall-stones by the pedicle producing a partial obstruction of the common duct; (3) the bending of the ureter often gives rise to hydronephrosis; (4) it may produce death by a complete strangulation, by a torsion of the vessels and ureter; (5) by dragging on the abdominal aorta and kinking the vena cava, a condition simulating an aneurysm of the vessels may be produced; (6) do not temporize, but advise operation. True enough, all these conditions may happen, but are they not due to enteroptosis of which the displacement of the kidney forms only a part and our first aim is to relieve the enteroptosis. [T. M. T.]

4.—Paddock gives a few of the most important points in the hygiene of pregnancy as follows: (1) Make an examination as soon as you are called; (2) see that patient is instructed in regard to exercise; (3) strict attention should be given to the excretory organs, regulate the habits of diet, attention to the breasts; (4) daily bath should be advised, not necessarily a hot one, but tepid or agreeable to the patient; (5) frequent examination of the urine, say, every 2 weeks, and the last month every week; (6) select the lightest and most pleasant room, which has been thoroughly cleaned and aired. [T. M. T.]

5.—Mettler gives the following symptoms as indicating tumor of the corpus callosum: General symptoms of brain tumor, such as headache, etc.; gradual hemiplegia followed by paraplegia, great mental dulness, sleepiness, stupidity, indifference to the external world and a low, inanimate condition generally; absence of anesthesia and of all signs of involvement of the cranial nerves, terminal coma and death. There is much doubt about all this, however, as the symptomatology is so general. A definite localization is, therefore, extremely difficult if not quite impossible. The bilaterality of the paralysis and its irregular type, when taken in conjunction with the mental deterioration and general signs of intracerebral tumor, are highly suggestive. In Schaffer's collected 25 cases of tumor of the corpus callosum, 10 exhibited optic neuritis, while in 7 it was absent. Headache was wanting in 11 and there was absence of vomiting in 15. In all the cases there was a change in the mentality, including weakness of the intellect and memory, somnolence, etc. Convulsions occurred in 11. Disturbances of sensibility were exceedingly rare. Mental changes are more constant with tumors of the corpus callosum than with tumors in other parts of the brain. When such mental changes are unaccompanied by any definite localizing symptoms, a tumor of the corpus callosum ought always to be thought of. [T. M. T.]

June 28, 1902. (Vol. LXXV, No. 26.)

1. The Methods which make for Success in Medicine in The Twentieth Century. T. GAILLARD THOMAS.
2. A Case of Pregnancy Complicated by Pyonephrosis, with Remarks. CHARLES GREEN CUMSTON.
3. Cerebral Localization and Brain Function. HARRISON METTLER.

2.—Cumston points out that an open hydronephrosis produces much greater changes in the kidney than a closed one, but by nephrotomy another outlet is given to the urine and the obstructed ureter can be rendered permeable if the obstacle is a removable one. After this it naturally ensues that the impaired parenchyma can again renew its physiological functions, and it has been pointed out by Wagner that nephrotomy resulted in a cure of the hydronephrosis without a fistula in 30 per cent. of all cases operated on. This same authority points out that nephrectomy is contraindicated when the hydronephrotic sac has not been interfered with surgically, and should only be considered a secondary operation when an incurable fistula results from the nephrotomy, provided that no other operative means for preserving the *status quo*, such for example as a resection of the ureter, appears inadvisable. Newman has collected 655 cases of acquired hydronephrosis, in 217 of which the affection existed in one kid-

ney only, while in 448 cases it was bilateral. Consequently the surgeon should never expect that a hydronephrotic kidney can undertake to fulfill the functions of its fellow when the latter has been removed. Morris's statistics are very similar to Newman's. He found that, out of 142 cases of hydronephrosis, the affection occurred in both organs 106 times and in one organ only 36 times, while Roberts found both kidneys affected in 13 out of 20 cases of hydronephrosis. Hildebrand has reported a case in which nephrectomy had been done on a left hydronephrotic kidney, and 3 weeks after the operation death resulted with symptoms of uremia. At the necropsy hydronephrosis of the right kidney was found, and Hildebrand therefore very properly advises that, in all cases in which pus can be drained away by nephrotomy, a fistula should be made, because one should assume that the exact condition of the other kidney is ascertained with difficulty. If now the fistula gives rise to much inconvenience and if the existence of a second healthy kidney appears to be proved, secondary nephrectomy may be undertaken. [T. M. T.]

3.—Mettler suggests the following conclusions, as a result of study of the modern views upon cerebral localization: (1) The known motor and sensory areas of the cerebral cortex are not sharply distinguished one from another, as was at first supposed by Ferrier and his followers; (2) nor are they, as separate foci, of such a character and of such relative unimportance as to render the action of the brain that of a single organ, for which Goltz and his school contended; (3) there are separate motor and sensory centers within the cortex, but they are closely intermingled and are most intimately connected with one another; (4) both the motor and sensory areas have foci of special intensity; the former in the central, the latter in the posteroparietal lobules; (5) while there may be general intercommunication between all the sensory and motor elements of the cortex, there is the most intimate connection between the related sensory and motor cells which preside over corresponding parts of the body; (6) the primary function of these cortical sensorimotor groups of cells as couplets is that of reflex action like that of the sensorimotor reflex arcs of the various spinal cord segments. This is shown by the morphological and embryological development of the entire cerebrospinal axis, and it explains most satisfactorily the majority of the sensorimotor phenomena of physiological experimentation and clinicopathological observation; (7) mentalization depends upon sensorimotor phenomena, and is therefore a function probably of the cortex, basal ganglia and entire nervous system. Conscious mentalization is probably a function of the cerebral cortex alone. The relative importance of the cortical areas in the production of the mind is not yet determined; (8) inhibition is apparently the latest and highest differentiation in the function of nervous matter, though it is itself a more or less latent function of all nervous substance, its degree of activity varying merely with the stage of nervous development; (9) inhibition is probably the special function of the forebrain and therefore endows this part of the nervous system with a commanding influence over the rest of the nervous apparatus. The forebrain is therefore justly spoken of as pre-eminently the psychic center, though, when exhaustively examined, its inhibitory and reflex functions differ from the inhibitory and reflex functions of the ganglia lower down in the cerebrospinal axis in degree rather than in kind; (10) the inhibitory function of the forebrain appears in the sphere of consciousness, and thus forms the basis of volition. It is pre-eminent in force and manifestation, but it does not preclude the exercise of the same function in a lesser degree by the lower parts of the nervous system upon parts still lower; (11) the sensorimotor functions of the cerebral cortex are psychical in character, and influence the external parts of the body through the mediation of the cord and special ganglia, just as the highest of all the psychic centers, the forebrain and other association territories still unknown, influence the body through

the sensorimotor cortex, special ganglia and spinal cord; (12) *in fine*, inhibition and reflex action being the special property of all nervous matter, they are found in varying gradation, as the functions of the most highly organized matter of the cortex, which therefore, seems to be the special seat of mind, down to the most primitive ganglia of the spinal cord which retain only the lowest degree or most elementary form of reflex irritability. [T. M. T.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

June 26, 1902.

1. The Present Status of Medicine. W. S. EVERETT.
2. The Importance of Milk Analysis in Infant Feeding. A. H. WENTWORTH.
3. Typhoid Spine. E. G. CUTLER.
4. Analysis of 26 Cases of Typhoid Spine. F. T. LORD.
5. Some Cases of Malaria Accompanied by Acute Abdominal Symptoms. J. M. JACKSON.
6. The Diagnosis of Malaria by Stained Specimens of Blood. H. F. HEWES.

1.—Will be abstracted when concluded.

2.—Will be abstracted when concluded.

3.—After reviewing the subject of **typhoid spine**, Cutler reports in full a case occurring in a man of 32. Photographs show the condition and the jacket applied in treatment. The patient has greatly improved. The condition in this case was periostitis of the spine. [M. O.]

4.—Lord has collected 26 cases of **typhoid spine** and has analyzed them. Of the 26, 22 occurred in men. In 6 mechanical strain is given as a cause beside typhoid fever. In 14 cases the pain began during typhoid or within 2 weeks afterward; in 8 cases it occurred within 6 weeks; in the remaining 4, in 3 months. There was tenderness in 16, and pain in all 26. Stiffness of the spinal column was noted in 8 cases. In 6 cases only was hysteria or neurasthenia observed. Kyphosis occurred in 8 cases. Rest in a plaster jacket is the best treatment. The prognosis is good. The condition is generally perispondylitis or spondylitis. A rise of temperature in 7 cases was suggestive of organic trouble. [M. O.]

5.—Jackson reports 6 cases of **malaria accompanied by acute abdominal symptoms**, suggesting appendicitis or peritonitis. In these cases routine blood examinations revealed the diagnosis and quinine caused the disappearance of all symptoms. The case-histories follow in detail. [M. O.]

6.—Hewes insists upon the **importance of examining the blood in every case treated**, to find the absence or presence of malaria. He states that by the Leishman or Nocht modification of the Romanowsky stain it is a simple matter to determine this. [M. O.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

June, 28, 1902.

1. A Contribution to the Treatment of Pneumonia with Antipneumococcic Serum. BRICE W. GOLDSBOROUGH.
2. On the Immunization Treatment of Hay Fever. E. FLETCHER INGALS.
3. A New Method of Treating the Broad Ligament Stumps in Vaginal Hysterectomy. E. C. DUDLEY.
4. The Physician as a Social Economic Factor. EDGAR J. SPRATLING.

1.—Goldsborough contributes an article on the **treatment of pneumonia with antipneumococcic serum**. In the treatment of pneumonia he employs measures which are generally used to control the various symptoms, and antipneumococcic serum, which he thinks has a curative effect. He employed it in 9 cases, the clinical reports of which are contained in his article. In all of these cases there was a marked change within 48 hours after its administration; in some the crisis was successfully passed within 48 hours. In some cases 3 injections were necessary while in others one was successful. His article also contains a tabulated list of 447 cases of pneumonia treated with antitoxic serums. The mortality of the cases treated with antipneu-

mococcic serum was 16.5 per cent. Two of the 9 patients, which he treated, died. [F. J. K.]

2.—Ingals contributes an article on the **immunization treatment of hay fever**. This author has used, in 20 cases, a combination composed of equal parts of a freshly prepared fluid extract of ambrosia and a fluid extract of the solidago odora. The patients were directed to take a dose of the medicine about 10 minutes before each meal and at bed-time. The initial dose was 6 drops and each succeeding dose was increased 2 drops until a maximum dose of 60 drops had been reached. The patients were also directed to continue the remedy for a week or 2, then to discontinue its use, and again to use it upon the first appearance of any symptoms of hay fever. In addition local treatment was advised. The result of this treatment was that 67 per cent. of the patients were relieved by its internal use. Thirteen of them believed they were benefited by the local treatment. The author contends that these remedies are used very little in medicine and, therefore, doubt arises as to the effectiveness of the preparations now at hand. [F. J. K.]

3.—Dudley remarks that in the operation of **vaginal hysterectomy** the broad ligament stumps are usually treated in one of two ways: (1) They may be ligatured, cut short, and returned to the abdominal cavity, and the vaginal wound closed, with or without drainage, according to the nature of the case; (2) in order to avoid the evil effects of the method already mentioned, the stumps may be drawn down into the vagina and fastened there with the same sutures which are used to close the vaginal wound. This makes the operation extraperitoneal and enables the ligaments to perform their functions of holding up the rectum, vagina and bladder. Dudley proposes a new method which is only applicable to those cases in which the ligaments are sufficiently long to permit end-to-end approximation or the folding of one on the other and the fixation of them in the vaginal wound. The ligaments after ligation *en masse* are drawn down into the vagina, the anterior and posterior peritoneal margins of the vaginal wound being whipped together by a continuous cat-gut suture which secures at either end the broad ligaments so that they cannot slip back into the pelvic cavity. The broad ligaments are then united end-to-end by continuous cat-gut suture; then the anterior and posterior margins of the vaginal mucosa are united by a continuous cat-gut suture, making a line of union from side to side. This suture completes the operation. [W. A. N. D.]

AMERICAN MEDICINE.

June, 28, 1902.

1. Milk, Butter and Butter Substitutes, in Relation to Public Health. GEORGE M. KOBER.
2. The Surgical Elevation of Suspension of the Ovary and Tubo-adnexopexy. HENRY D. BEYEA.
3. The Ear from a Medicolegal Standpoint. W. SCHEPPEGRELL.
4. Pyemia, with Report of a Case. HENRY D. FULTON.
5. The Significance of Eosinophilia in Pemphigus. JOHN W. COE.

1.—Kober discusses **milk, butter and butter substitutes** in relation to public health. He reviews the role of milk as a carrier of diseases as well as butter, and the butter substitutes. **Oleomargarin** is nearly as digestible as butter, and, owing to the strict supervision exercised over its manufacture, is far less likely to act as a carrier of disease than butter, unless the latter is made from pasteurized cream. [T. L. C.]

2.—Beyea presents a paper on the **surgical elevation and conservation of the prolapsed ovary and tube (adnexopexy)**. He describes 2 classes of cases in which the operation may be employed; first, that of **simple prolapse of the ovary**, and its correlated tube to the recto-uterine plica or into the Douglas cul de sac, and second, those instances of more or less mild **chronic inflammatory disease of the tube and ovary**, which have resulted in the same degree of prolapse and in which the pathological changes are not sufficiently extensive or severe to demand the operation of salpingo-

oöphorectomy. He gives the causes and the symptoms of the first class of cases, and states that in 5 instances he has practised the operation of adnexopexy, with puncture or ignipuncture of the cystic follicles or resection of the ovary when necessary. He presents a series of 12 cases of the second class in which this conservative treatment was followed. [T. L. C.]

5.—Coe reports a case of pemphigus of relapsing type, which had extended over a period of 9 months. The eosinophilia was very marked, 50.7%, the highest yet reported in any skin lesion, with the exception of that of urticaria. The increase of the eosinophiles followed the appearance of the eruption. [T. L. C.]

JOURNAL DES PRATICIENS.

February 22, 1902. (16me. Année, No. 8.)

1. Asepsis and Antisepsis in Obstetrics. L. DEMELIN.
2. Is a Sojourn at the Seashore Contraindicated for Children on Account of Malaria. H. DAUCHEZ.

1.—Demelin found from the statistics of the past 10 years that 0.29% of the mothers died from infection following parturition and that 11.7% of all mothers were infected; that 3.13% of the infants died of infection and that 4.75% of all infants were infected. He urges that the women of the lower classes be taught the necessity of being examined by a physician some time before full term has arrived. Everything which touches mother or child must be sterilized. He advises that a vulvar pad be worn during pregnancy and after labor, which will to some extent limit the number of vaginal explorations. As soon as labor begins, the woman must be thoroughly cleansed, as should be the hands of the obstetrician. When slight infection follows, in spite of all precautions, a single uterine douche is often followed by recovery. [M. O.]

2.—Dauchez believes that a sojourn at the seashore is contraindicated for a child on account of the prevalence of malaria along the seacoast, as long as mosquitoes are allowed to thrive there. Therefore no child should be taken to a hot climate, especially during the warm season; to low lands bathed by river and ocean; along rivers which frequently overflow their banks; to ground which is impermeable, permitting the deposit of organic detritus; or near sewers, canals, or other stagnant water. On this account he advises the mountains for children in preference to the seashore. [M. O.]

March 1, 1902. (16me. Année, No. 9.)

1. Stasobasophobia. DEBOVE.
2. Chloroform as the Anesthetic in Heart Disease. BARETTE.

1.—Debove presented a woman of 52, who had been a cook for 25 years. At 16 she had chlorosis and melancholia and fits of anger followed. She also had nervous dyspepsia. She developed diphtheria last September, and received antitoxin. An urticarial eruption appeared 2 weeks later, probably due to the antitoxin. Suddenly, in October, she felt her legs give way, and fell upon her knees. Since then she has been unable to walk. One physician diagnosed the case diphtheritic paralysis; another called her condition polyneuritis with many neuropathic symptoms. Debove found only stasobasophobia, as she is afraid to stand up or walk, fearing that she will fall. The slight muscular atrophy he considers the result of chronic rheumatism. She cries, says she is dying, and shows paralysis of the legs, diplopia and amaurosis at times. Recovery resulted after the use of methylene blue and picric acid applications. Gradually, as her urine became blue and her hands yellow, she improved. She is now quite well. [M. O.]

2.—Out of 6000 chloroform anesthetics in 12 years, but 3 patients died. One, a man of 23, with a previous history of alcoholism, died during operation, his heart suddenly ceasing to beat in diastole. Nothing could resuscitate him. Autopsy showed a very fatty heart, the ventricular walls being one-half fat. This was probably the result of excessive alcohol. Barette believes that all physicians should be taught how to administer chloroform. In the case reported, the chloroform caused death on account of fatty degeneration of the heart. It is, therefore, contraindicated in such cases. [M. O.]

Society Reports.

AMERICAN NEUROLOGICAL ASSOCIATION.

(Continued from Page 1153).

Dr. Morton Prince, Boston, reported a case of a man who had been stabbed in the neck between the sixth and seventh cervical vertebræ. There was paralysis of the trunk and legs, partial paralysis of the arm; and, for a short time after the injury, preservation of sensation. This subsequently disappeared. A most painstaking examination of the cord showed that the line of the cut had passed obliquely through it, severing the pyramidal columns, posterior columns and posterior cornua, but leaving intact the anterior columns and the anterior cornua. The case was mentioned as evidence of the fact that sensory impulses are conveyed to the brain by other than the posterior columns. The case was discussed by Dr. Mills, who inquired whether the different forms of sensation had been tested, and by Dr. Spiller, who argued that perhaps tactile sensation could be conveyed to the brain by other afferent fibers. In closing Dr. Prince stated that when he first saw the patient it was merely a question of operating or not, and he had tested sensation very rapidly, and had not had time to test the various forms. Subsequently the man became anesthetic.

WEDNESDAY AFTERNOON.

Dr. J. A. Booth, New York, gave a careful description of the present condition of 6 patients with exophthalmic goiter, from all of whom larger or smaller portions of the glands had been removed. In all cases either considerable improvement or cure had occurred. He believes that the operation is the most rational form of treatment, and should not be delayed, as its dangers are less and the chance of improvement greater in the early stages. Starr also approved of operative treatment. Fraenkel stated that the operation is sometimes dangerous. Dana does not approve of the removal of the sympathetic ganglion for the cure of this condition. He stated that medical treatment may also cause as much improvement as is observed as a result of the operation. In some of the cases bulbar involvement may be present and then, of course, operation is futile. Hirsch also spoke of the dangers of operative treatment, and quoted some cases. Osler argued that the operation is far less dangerous now than formerly as a result of improved surgical technique. The results are often remarkable, and it affords the greatest likelihood of cure. In one case under his care in which all the symptoms excepting a disfiguring exophthalmus had disappeared, bilateral resection of the sympathetic had caused sufficient ptosis to diminish this considerably. Sachs argued that cases often get well without treatment. In one of his patients one half of the gland was removed and caused diminution of exophthalmus on that side, which had persisted.

Drs. F. X. Dercum and D. J. McCarthy, Philadelphia, reported a case of adiposis dolorosa with a typical clinical course, death being due to erysipelas. At the autopsy they found an adenocarcinoma of the pituitary gland, interstitial neuritis in the fatty tissue, free hemolymph glands, hemolymph tissue in the fatty nodules, and an angioma of the spleen. The fat showed a peculiar cauliflower-like arrangement. Dercum mentioned that in several of the cases in which autopsy was performed it has been found that the cerebral convolutions are atypical. He regards this as an interesting coincidence, probably without significance. Putnam remarked that patients suffering from this disease show many other stigmata of degeneration or atypical formation. Spiller mentioned that the hemolymph glands are probably not peculiar to adiposis dolorosa. The fat is not similar in all cases. Fraenkel mentioned a case that he had seen. McCarthy, in conclusion, discussed the classification of these various forms of disease, and called attention particularly to the cauliflower arrangement of fat in this case which has not existed in some of the others.

Dr. B. Sachs, New York, discussed amaurotic family idiocy and read the report of an autopsy which he had performed upon one of his cases. It was noted that the brain was peculiarly hard, and that the ganglion cells.

showed considerable alteration, not a single one being normal. There was no secondary degeneration in the central nervous system. He called attention to the fact that nearly all of these cases occurred in Jews. Spiller reported a peculiar type of familial disease which he had been able to trace in 14 members of a family, representing 6 generations. It consisted of a form of spastic paraplegia commencing in childhood, but not disabling the patients. He had studied this disease in a father and son, both of whom were affected. Hirsch exhibited a case of amaurotic family idiocy occurring in a child, 14 months of age, who was gradually becoming blind. The patient had hyperacusis and general weakness, but intelligence appeared intact. He argued that the changes are similar to those of organic poisoning, and he therefore regards it as a specific disease. In closing, Sachs argued that if the disease was due to a toxin there must also be some peculiarity of the nervous system rendering it more susceptible.

Drs. D. J. McCarthy and C. W. Burr, Philadelphia, gave the results of their studies on 9 cases of **lateral sclerosis**. Five were associated with anemia; 2 were due to cerebrospinal syphilis; one was apparently a combined system disease of unknown cause, and one was due to alcoholism associated with interstitial nephritis. Upon the basis of these cases and other forms reported in the literature, they classify the forms of combined sclerosis as follows: (1) Friedreich's ataxia; (2) tabes associated with diffuse sclerosis involving the lateral columns; (3) tabes with degeneration of the pyramidal columns and elsewhere; (4) posterolateral sclerosis with disease of the anterior horns; (5) lateral sclerosis with slight changes of the posterior columns; (6) subacute diffuse degeneration of the spinal cord due to various blood dyscrasias; (7) diffuse interstitial sclerosis; and (8) combined system disease of unknown cause affecting various tracts. In the discussion Putnam mentioned that a variety of conditions may produce these lesions. They may even be associated with an increase in the number of red bloodcells, showing that they are not necessarily anemic. Walton insisted that the etiology of all cases should be carefully studied. Spiller remarked that the anemic form is often diffuse, and that careful distinction should be drawn between these forms and those due to syphilitic meningomyelitis. Prince inquired about the behavior of the tactile sense in these cases, and McCarthy replied that it was usually preserved.

Dr. W. Meyer reported an interesting case of **transverse lesion of the midthoracic segments**, with the exception of the posterior columns, giving a minute description of the sensory changes which involved only pain and temperature sense. Prince remarked that this case was in a sense complementary to his own. Drs. C. K. Mills and W. G. Spiller, Philadelphia, reported an interesting case of **quadriplegia**, with involvement of one side of the face. There was marked dissociation of sensation and at the autopsy a lesion was found involving the fourth, fifth and sixth cervical segments. Walton discussed the relations of the Babinski sign. Fraenkel insisted that the plantar reflex should always be carefully studied. Collins insisted that the Babinski sign was always pathognomonic. Walton reported a case of tetanus with a typical Babinski sign.

THURSDAY MORNING.

Drs. Joseph Fraenkel and J. R. Hunt reported the clinical and pathological studies of three cases of **multiple neurofibromatosis**, and exhibited a patient with lesions. Dr. Putnam, Boston, presented a photograph of a rare atypical case probably belonging to this condition, but in some respects resembling elephantiasis. Dercum discussed the difference between adenolipomatosis and adiposis dolorosa. McCarthy exhibited a specimen of fat from the case of adiposis dolorosa reported by himself and Dercum the previous day. Starr mentioned an interesting specimen in the museum of the College of Physicians and Surgeons. Hunt remarked that the absence of neuron symptoms was due to the absence of inflammatory foci in the fibrous tissue, and to the amount of liquid present in the tumors. Hammond exhibited a case of **familial muscular dystrophy** that he had treated with 3 grains of thyroid extract 3 times a day with most extraordinary improvement. There seemed reason to suppose that this improvement was due to the gland substance.

Drs. Putnam and Krauss, Buffalo, reported an interesting case of **tumor of the spinal cord** involving the third cervical

segment, which was correctly diagnosed and removed by operation. The patient made a very satisfactory recovery. The authors collected all the statistics of spinal cord tumors treated by operation, and reached the general conclusion that operation should always be attempted, as it offers the only hope of improvement. Lloyd insisted upon the importance of diagnosis. He called attention to the fact that the case reported shows a reversed Brown-Sequard paralysis, that is to say, the motor paralysis was on the opposite side of the lesion and the sensory paralysis on the same side. He believes that this proves that we know little of the Brown-Sequard syndrome and that perhaps in organic disease hystero-anesthesia may occur. Walton also urged the importance of operation, but stated that in Boston the results had been unfavorable. Fraenkel reported a case of caudal tumor which he had correctly diagnosed, and which was removed at operation with almost entire relief. Putnam stated that the Brown-Sequard symptom had appeared after the operation. Onuf suggested that perhaps the X-rays might help in the diagnosis of these tumors. Krauss, in closing, stated that it is best to start the operation too high and then cut downward; that sepsis is especially dangerous and may arise from bedsores.

Dr. C. L. Dana, New York, read a long paper upon the **differential diagnosis between hysterical and other forms of anesthesia**. He stated that many of the hysterical areas were due to suggestion, and that the differential diagnosis was often exceedingly difficult. Knapp stated that dissociation of sensation was exceedingly rare in hysteria. Dercum said that in hysteria we are more likely to get hypesthesia than anesthesia, and that hypalgesia was exceedingly common. Onuf stated that hysterical patients often show involvement of deep sensation; they may burn themselves; and hysterical paraplegia may occur. Prince argued that isolated patches of anesthesia were usually rare, and due to suggestion. Astereognosis may occur, especially as a result of suggestion. Paraplegia is not unknown. He believes that hysteria will be found to be due to disturbance of the physiology of the cerebrum. Smith-Baker called attention to the important cerebral factors in hysteria. Mills stated that all organic signs may be simulated by hysteria, but persistent contractures are rare. Contraction of the visual field is not pathognomonic of hysteria. Putnam urged that hysterical lesions were not explainable on anatomical grounds. Fraenkel insisted upon the importance of the increase in the reflexes in hysteria. Dana, in closing, stated that he believed that major hysteria could be distinguished from organic disease of the central nervous system.

THURSDAY AFTERNOON.

Dr. F. X. Dercum, Philadelphia, reported an interesting case which showed **irregular palsies of the extremities**. There was some wasting of the arms, but not of the legs. The reflexes of the lower extremities were greatly increased and in the lower part of the body there was disturbance of sensation with some dissociation. Knapp discussed the mechanism of the plantar reflex. He believed that the Babinski reflex is completed in an arc in the lower portion of the cord, and may be crossed. Walton stated that the upper arc appears to have a controlling function. Leszynsky presented two brains, containing cerebral abscesses, and discussed the symptomatology presented by the patients during life.

Dr. W. Meyer, New York, presented some very interesting specimens from a case of **acromegaly**, the most important feature being the presence of typical ganglion cells in the portion of the hypophysis that had been split off, each of the cells showing several nuclei. Otherwise they were normal and contained typical Nissl bodies. He also demonstrated some specimens from a series of cases that presented the following clinical symptoms: Twitching of the face, risus sardonicus, awkward movements of the limbs, tonic spasms of the hands and upper extremities, impairment of speech, with fair preservation of intelligence. The course was from one to two weeks. The electrical reactions of the muscles were normal; the reflexes were increased; death was usually due to bronchopneumonia. The specimens showed degeneration of the nerve cells and the nerve fibers in the central nervous system, without any inflammatory manifestations. McCarthy stated that as a result of injury he had been able to produce an osteoma in the brain of a cat. Sailer inquired whether there

had been proliferation of the nucleoli in the nerve cells. Meyer stated that no nucleus contained more than one nucleolus.

Dr. Hirsch read a paper upon the **symptomatology of arteriosclerosis** in the spinal cord. He called attention to the gradual loss of motor power, and to the fact that sensation was so rarely disputed. Onuf discussed the various forms of **Raynaud's disease**, and insisted particularly upon the importance of discovering the etiology of this condition. Hammond reported two cases that he had observed.

Dr. Knapp reported a case of **herpes zoster** which was apparently due to a lesion of the fifth and sixth cervical segments, because there was hypesthesia in the section supplied by this area, and degenerative paralysis in the muscles innervated by it. He also mentioned two cases in which the patients had suffered from **amputation neuromata** with intense neuralgic pains that could not be controlled by excision of the neuromata or resection of the nerves. Section of the posterior spinal roots was therefore undertaken in one case in which there had been amputation of the leg, and the patient died on the table. In a second case, in which pain had occurred after amputation of the arm, a large amount of cerebrospinal fluid was lost, and the patient had hallucinations for some time after the operation, but ultimately recovered, and there was some diminution of pain. Spiller mentions a case in which the question of operation had been considered.

Dr. Hoppe reported a number of cases of **acute hemorrhagic encephalitis**. In one case it had been possible to make a careful macroscopical and microscopical examination of the tissues. He discussed the treatment of these cases and stated that as a general rule he employed salicylic acid, potassium iodide and mercury.

AMERICAN SURGICAL ASSOCIATION.

(Continued from Page 1154.)

WEDNESDAY AFTERNOON, JUNE 4.

Dr. H. L. Burrell, Boston, submitted a paper on the **teaching of surgery**. There should be different methods of teaching surgery because of the varying individuality of the students. There should be a minimum of fundamental knowledge, a maximum of personal contact with patients, and an atmosphere and enthusiasm which mean environment and men. The didactic lecture economizes the time of the teacher and student, and gives the inspiration which comes from the spoken word. Its disadvantages are the receptive condition of the student, the danger that the course becomes perfunctory, the fact that there are very few good teachers and the lack of stimulus to the teacher in that he gives and does not receive. The lecture, which is critical, analytical and which presents new knowledge and awakens a latent enthusiasm for work, is rare but of great value. Selected subjects should be given in the lectures and a syllabus of the whole of surgery should be prepared and printed for students. Lectures are of value if illustrated by lantern slides, charts, diagrams, specimens and clinics. Recitations are of value if they clear up vague points. Surgical anatomy should be taught by an experienced surgeon. A minimum amount of surgical pathology should be given, but the teacher should be so well grounded in the subject that he can carry the teaching of surgical pathology throughout the entire curriculum. The art of bandaging should be taught. The student should be taught to use ordinary carpenter's tools. Diagnosis should be taught on living models and crepitus should be taught on the broken leg of a dead dog rather than on a patient. To show a series of cases illustrating the various stages of the same disease is instructive. The value of section work is very great. Operative surgery should be taught on the living dog as well as the cadaver. Original work should be encouraged, but strictly under guidance. The value of conferences, clinics, hospital work, organization and co-operation were also discussed. Dr. J. D. Bryant, of New York, discussed the teaching of surgery with special reference to the didactic method. He adopted the following conclusions: A thorough didactic foundation is necessary for the attainment of surgical knowledge; clinical teaching fits the student for the proper appreciation of didactic facts; didactic teaching with limited clinical opportunities

begets ponderous theorizing with a minimum of fertile practicality; and clinical teaching with limited didactic teaching begets an unreasoning imitation with limited logical deductions. The association then adjourned to inspect the Albany Hospital.

THURSDAY MORNING, JUNE 5.

Dr. W. J. Mayo, in a paper on the **complications of gastro-enterostomy**, based on 107 operations, gave his mortality as 9%, the patients dying of exhaustion, pneumonia, pernicious vomiting and the giving way of the gastro-enterostomy. Of the 97 recoveries there was some subsequent trouble in 5%. He uses the Murphy button. Eighty-three of the operations were anterior and 24 posterior gastro-enterostomies. He prefers the posterior route when there is a large vascular loop through which the operation may be performed, and when the mesocolon is not too fat. When the pylorus is permanently obstructed, there is no subsequent contraction of the anastomotic opening, but when the patency of the pylorus is restored, the gastro-enterostomy is liable to close gradually. In one of the cases a coil of intestine slipped through the loop of bowel formed by the operation and intestinal obstruction ensued. In 3 of the 25 cases in which the operation was done for gastric ulcer, obstruction from angulation of the bowel occurred. In 2 of these cases the symptoms were relieved by jejuno-duodenostomy. The opening into the bowel should be at least 10 inches from the pylorus. Dr. Richardson prefers to restore the patency of the canal at the pylorus rather than to do gastro-enterostomy.

Dr. J. M. T. Finney described a **new method of pyloroplasty** which he has performed 5 times during the past year. After separating the adhesions around the pylorus, the duodenum and stomach are approximated for 2 or 3 inches from the pylorus along the greater curvature of the stomach by a running suture. Some distance in front of this suturing a second row of sutures is placed, but not tied. The stomach, pylorus and duodenum are converted into one cavity by an incision and the united sutures fastened. Objections to the ordinary operations are adhesions around the pylorus, active ulceration, contraction of the opening and thickened walls of the stomach. In the Finney operation the anterior wall of the pylorus may be excised. Dr. Bevan said that in the 20 gastro-enterostomies which he has performed deaths were due to suffocation from vomited material getting into the air passages, pneumonia, perforation and exhaustion. Owing to the fact that, in from 25 to 50% of the cases in which the button is used, it is retained, he prefers the simple suture. In 30 gastro-enterostomies, Meyer, New York, has never seen vomiting from the formation of the vicious circle. He stitches the opening in the transverse mesocolon to the stomach to prevent contraction. He believes the elastic ligature of McGraw is a step in advance. Dr. Mayo stated that, in the 17 pyloroplasties which he has done, he was forced to do secondary gastro-enterostomy in 5, because the pylorus would become adherent high in the abdomen and cause obstruction by kinking. In one of the cases operated upon by Finney there was transient jaundice after operation and in another there was transient glycosuria.

Dr. Ochsner presented a paper on the **surgical treatment of tubercular peritonitis**. He has operated on 32 cases with one death. Of 21 which were followed, 15 were well after from 1 to 11 years, 5 had died and 10 could not be traced. He concluded that medical treatment should be employed in all cases before operation; that this should consist in the administration of intestinal antiseptics, good food, etc.; if the cases improve under this treatment, it should be continued and if there is no improvement operation should be performed; if a local lesion, such as an infiltrated appendix, is found, it should be excised unless it is intimately adherent. Great masses of tuberculous material may be absorbed and when there is a large quantity of fluid in the abdomen the lesions should not be disturbed. Unnecessary manipulation and breaking up of adhesions should be avoided; the cases should continue to receive medical treatment after operation; prognosis is more favorable in those who have no tuberculosis in the family, while in some cases repeated operations are necessary. Dr. Bevan believes operation has absolutely no effect on tuberculosis of the peritoneum. Dr. Burrell said that if pus were present it would be absurd not to evacuate it, and that

some of the ascitic patients would get well under medical treatment. Dr. Mayo urged operation in all cases in which there is fluid in the abdomen; when there are universal adhesions it is useless to operate. Dr. Richardson removes any local lesions which may be found.

Dr. McGraw reported an **unsuccessful splenectomy for leukemic enlargement** in a male child, aged 8 years. Inoculations of the spleen's blood and substance into guinea-pigs were made to test Löwit's theory as to the role played by contagion in producing leukemia; results were negative. Excision of the spleen in leukemia has hitherto been done for the relief of the abdominal distension and its consequent distressing symptoms. It might possibly, with greater experience, be done early in the disorder as a curative measure. The operation would also be much less dangerous if performed when the enlargement first becomes manifest. Dr. Meyer believes that in view of the failure of medical treatment early splenectomy should be tried; he has had 2 fatal cases. Dr. Richardson successfully operated on a case in which the diagnosis was not made until after the operation. The following papers were read by title: **A new method of performing gastro-enterostomy** by Dr. G. R. Fowler, of Brooklyn; **Suppurative pancreatitis, with report of a successful case**, by Dr. F. W. Murray, New York; and **Why not treat the gall-bladder as we treat the appendix**, by Dr. Park.

THURSDAY AFTERNOON, JUNE 5.

Drs. R. H. Harte and R. N. Willson, Philadelphia, reported 2 cases of **primary carcinoma of the appendix**. The first patient was a woman, aged 24, the second a man, aged 25 years. Both gave a history of chronic appendicitis and were operated upon during an acute exacerbation. In the first case the appendix appeared normal to the naked eye, but the lumen was closed for almost the entire length of the organ. On microscopical examination there were evidences of inflammatory changes and about 1 cm. from the tip and over a distance of 0.5 cm. sections showed extensive carcinomatous infiltration of the scirrhous type. In the second case some foul brown fluid escaped when the abdomen was opened and the appendix was found ruptured near its tip. All the coats of the appendix were necrotic, sections demonstrating carcinomatous infiltration; the muscularis mucosæ separated the growth from the mucous membrane, showing that it was secondary. The first patient recovered and remains in good health; the second recovered from the primary operation but later underwent section for intestinal obstruction from adhesions, death occurring on the same day. The total number of cases in which the appendix has appeared primarily involved by carcinoma is nearly 30, and those in which the growth appears to have been limited to the organ do not amount to more than 8 or 10 unimpeachable cases. In the cases reported they regard the carcinomatous changes as induced by inflammation caused by concretions, fecal masses being present in each. Dr. A. W. Elting, Albany, reported a case of **endothelioma** and a case of **adenocarcinoma limited to the appendix**. Dr. Weir reported a **primary cancer of the appendix**. Dr. Matas had not seen such a case in 1000 appendices examined post mortem.

Dr. R. Matas, New Orleans, described a **new operation for aneurysm**. After shutting off the bloodsupply to the extremity the sac is opened, the orifices of the arteries sutured with catgut from within the sac, and the walls of the sac together with the attached skin inverted and sutured to the bottom of the cavity. The sac is not removed. There is no danger to the collateral circulation. Dr. Mayo reported 2 cases in which good results were obtained by opening the aneurysm and packing with gauze. Dr. Ransohoff thought that in old people it would be better to remove the sac, because of its low vitality. Dr. J. C. Oliver, Cincinnati, showed lantern slides of **cysts in connection with the teeth**. Dr. Meyer reported 3 cases in which he had implanted **silver filigree for the closure of large hernial apertures**. In one case there was slight recurrence. The silver is arranged in the form of a fine net work and it remains undisturbed in the tissues to which it is sutured by silver wire, even when suppuration occurs. Dr. W. B. Coley, New York, read a study on the **influence of the Roentgen ray upon the different varieties of sarcoma**. He reported

10 cases with no positive cure, yet marked improvement in all. Dr. Gerster, New York, has seen a cure after the use of the X-ray. He spoke of apparent cures which follow the use of KI. and other agents, and thinks we trust too much to the microscopical examination. Certain forms of syphilis cannot be determined clinically or histologically from sarcoma. Dr. McGraw reported several cases which had been benefited by the X-ray. Dr. S. H. Weeks, Portland, showed a new instrument for catheterization; it consisted of a slender sound to which was fastened a flexible filiform bougie. Dr. Bevan read a paper on the **present status of the X-ray as a means of diagnosis and as a therapeutic agent**. The agent has been of marked benefit in cases of lupus, superficial cancer, sarcoma, Hodgkin's disease and in 2 cases of tuberculous peritonitis. All operable cases should be treated with the knife. The X-ray has had no effect on deep-seated growths. In diagnosis, diseases of the chest and bones, gall-stones and kidney-stones, spine and hip injuries, can often be readily determined. Burns may occur even in the hands of experts. The following papers were read by title: **Four cases of removal of the larynx for carcinoma**, by Dr. J. Bell, Montreal; **Shortening of the radius in Colles' fracture**, by Dr. G. R. Fowler, New York; and the **surgical treatment of tumors of the thoracic organs, splenectomy for leukocythemic spleen, and 2 cases of excision of the colon for dilatation**, by Dr. Richardson.

Dr. E. Rixford, San Francisco, reported 2 cases of **exophthalmic goiter treated by operation**. In both cases symptoms indicative of Graves's disease were secondary to pre-existing goiter; both cases were chronic and were characterized by rapid heart action, fine tremor, rapid respiration, excessive nervousness, diarrhea, recurrence of these symptoms in paroxysms followed by remissions constant slight rise of temperature, dyspnea, general muscular weakness, flushings and sudden periods of excessive perspiration. In the first case there were extraordinary attacks of severe pain in the region of the liver, in the other a general nonpitting edema. In neither were there characteristic changes in the histological appearances of the tumors. In both cases operation was followed by temporary increase in nervous symptoms, followed by a gradual remission. In the first case the symptoms recurred with the development of a cyst in the remaining portion of the gland; this was removed and a transitory myxedema ensued. There have been no further symptoms in either case, the one being observed for 2 years, the other for 7 months. Partial thyroidectomy was performed in each case under cocaine anesthesia; the suffering caused by the manipulations of the deeper parts was bearable and due more to interference with respiration than to actual pain.

The following officers were elected: President, Dr. M. H. Richardson, Boston; vice-presidents, Drs. N. B. Carson, St. Louis, and W. J. Mayo, Rochester, Minn.; secretary, Dr. D. P. Allen, Cleveland; treasurer, Dr. G. R. Fowler, Brooklyn, and recorder, Dr. R. H. Harte, Philadelphia. The place of the next meeting is Washington, D. C.

Emphysema and Phthisis.—A. Deléarde states that partial emphysema is found in most cases of phthisis. But acute phthisis may be hidden behind marked emphysema, what Jaccoud called suffocative phthisis. Here fever, dyspnea and hemoptysis occur. The emphysema is general. The diagnosis is difficult at first, while the prognosis is bad. Fibrous phthisis also causes general emphysema. This is a chronic condition, the symptoms of emphysema being, as a rule, most marked about the tuberculous lesions. There may also be patches of emphysema at a distance from these lesions. The diagnosis is not difficult; the prognosis is grave. Good hygiene is always indicated. The discovery of tubercle bacilli in the sputum confirms the diagnosis. Several case-histories follow to illustrate these 2 varieties of emphysema with phthisis, acute and chronic. (*Le Bulletin Médical*, April 23, 1902.) [M. O.]

Special Articles.

THE KING'S CASE.

By JOSEPH PRICE, M. D.,
of Philadelphia.

His Majesty's illness has been typical of an exceedingly common and neglected disease. The delay in his case is a most beautiful demonstration of what the active clinicians have so fully dwelt upon. The procrastinations of professors of the theory and practice of medicine and surgery, no less than of conspicuous teachers and authors, figure largely in the incomprehensible delay in His Majesty's case. The acute symptoms, or the perforation, in all probability occurred on the 15th. The King should have been treated on that day as the fire department would have treated a fire at the royal palace. No one should ever die of appendicitis, and it is folly to consider varieties or longer to use the old nomenclature. Excessive medication of any kind is harmful and antiphlogistic treatment of any kind worthless. Delays result in perforations, pus accumulation or multiple pus accumulations, invasion of the right kidney, pelvic suppurations or a general peritonitis and resultant inflammatory products. In 1901 four hundred persons died in Chicago of appendicitis, and large numbers were not recorded, while in that city prominent teachers were strongly advocating freezing methods, cold applications, starvation and rectal feeding. If they knew anything about the natural history of the disease, they would know that the appendix was at that time, or soon would be, gangrenous or perforated. The symptoms are commonly so prominent and so few that the most careless man practising medicine ought to recognize them in the first hour. When a child, a poor little sufferer, will sometimes entreat its parents not to permit the approaching attendant to put his hand on the seat of pain, it seems strange that the diagnosis is not always made at once. The set muscle on the right, the pain and tenderness on the right are so characteristic that we can open the abdomen without an examination, simply reviewing a typical case, the sufferer making the diagnosis in our presence. I have never known any one to err in a typical case. His Majesty, like other prominent citizens, travelling over Europe and the Continent for health, carried a puddle of pus in his right iliac fossa for some days. I have known a good number of prominent citizens, and good physicians, to travel about attending to their business and profession with a puddle of pus and an advancing peritonitis. There is nothing extraordinary or new in His Majesty's case. I always feel sorry for a sufferer when I hear he has fallen into the hands of a conservative teacher. At the best, the dirty little appendix is an anatomical cesspool and always unhealthy. The dirty little sinus would not be permitted at any other point of the body. If our fingers and toes were hollow and as filthy and infectious as we always find the interior of the appendix, amputations would be exceedingly common. Must it be taught all over again that the

general surgeon's inflammatory wall is of as much use as a fire wall with fire on both sides of it, and that waiting for reaction or an internal operation is often waiting for death? We are dealing with a deadly little assassin with no respect to sex or person. The great and small fall alike under its influence and we should strangle it in its birth and not wait for what is so often a bubble to burst. This great calamity, which has come so suddenly, so unexpectedly, will, I am sure, save thousands of lives and will teach a great and needed lesson to those men who badly need to learn that in dealing with appendicitis we are handling a deadly enemy to be destroyed as all other assassins should. From report, Lord Lister says, "The doctors for weeks past have simply been trying to patch him up for the coronation, but to no avail." How that sentence must make many a man's heart ache who knows and understands what they were trying to do, with what they were dealing. That a man ill as His Majesty should be allowed to hold a State dinner is pitiful in the extreme, as there must have been some sign, some symptom at that time which gave evidence of where and what the trouble was. Here in Philadelphia, where, I am sorry to say, we see many cases of perforative appendicitis and "green groin," the diagnosis of appendicitis means a packed grip, the first train, an operation and a life saved. There should be but two things in appendicitis, a diagnosis, an operation. Surely there is not a more pitiful sight than the little child, sweating, tossing and dying, its abdomen an arch, its heart a high-pressure pump, on a chair by the bed a basin and bowl of cracked ice. To see this a few times makes the most conservative minds shudder and wonder. All over the world many prominent citizens are lost from appendicitis on account of the conservative methods taught, on account of delayed operations. The reports of the King's case are not enough in detail to allow us to judge as to the probable result. Some prominent teachers and operators have lost their own children by trials of worthless remedies and late operations. Foreign bodies in the flesh are commonly clean, not very infectious. Gangrenous and sloughing structures are infectious in the extreme. Good surgeons hasten to remove all foreign bodies and repair acute lesions.

APPENDICITIS.

By JOHN B. DEEVER, M. D.,
of Philadelphia.

Granting that the reports bearing the approval of eminent British physicians are correct, we may infer that Edward VII is suffering from perityphlitic abscess. This means that there exists a suppurative inflammation in proximity to the cecum and of the tissues contiguous to it.

From the fact that the vast majority of pus collections about the head of the colon are due to appendicitis, and from such reports as bear the stamp of authority, we must believe that King Edward has been operated on for the too frequent condition—appendiceal abscess.

Many vexatious questions arise under circum-

stances like this, when a most prominent individual is attacked by appendicitis. The importance of the correctness of the diagnosis, the circumstances surrounding the patient, and, perhaps, the unwillingness of the patient to undergo any operative measure unless it is imperative to save life, influence the surgeon as to the means best employed to secure the happiest result.

Any man occupying such an eminent position must subject his digestive tract to the inroads of toxic material; this aided by a rather sedentary mode of life and a cold, which he is reputed to have contracted ten days previously, would furnish the etiological factors for the appendiceal inflammation. It is further stated that the acute symptoms, namely pain and syncope, were present a week before the operation, which had subsided under treatment only to reappear on June 24 with such severity that immediate surgical interference was necessary. How often do we not meet with just such conditions in practice?

Given the presence of a concretion within the appendix, an obstruction of the lumen by either a stricture or a kink, which must interfere with the normal drainage of the organ, aided by the factors just described, the action of the micro-organisms, like the colon bacillus, the staphylococcus pyogenes, etc., and what happens? The pressure of the coprolith or the retained secretions injure the vascular supply of the mucous membrane by pressure and produce minute foci of ulceration. These only serve to increase the size of the concretion with further pressure, destruction of the bloodsupply, death of the part, necrosis and perforation, and then numbers of virulent micro-organisms are loosened into the peritoneal cavity about the caput coli. In the great majority of cases this occurs into preformed peritoneal adhesions and gives rise to a circumscribed peri-appendicular or perityphlitic abscess. With the onset of such an attack of appendicitis, we have in the vast majority of instances such unmistakable symptoms that delay or hesitation over the diagnosis must be the result of want of confidence, due to the lack of extensive experience with the disease. With the history of constipation, of digestive disorders, of previously colicky attacks and the onset of acute abdominal pain, first general, but soon referred to the right iliac fossa, of nausea and vomiting, of rigidity of the right rectus muscle and the abdominal muscles overlying the appendix and of tenderness to palpation about McBurney's point, there should be little doubt as to the correct diagnosis, especially in the male. But while we may make the diagnosis early, who knows what is going on within the abdominal cavity to warrant delay? A certain percentage of cases may and do temporarily recover without operation, but no one can foretell which case will terminate favorably, or which one will progress to perforation or gangrene of the appendix or general peritoneal infection.

It is just this very uncertainty as to the pathological process that makes the immediate operation the rational procedure. This cannot be better illustrated than to relate the usual history of a case of

fulminating appendicitis, namely, a patient with history of an attack one or many years before. He has been perfectly well up to the present attack of acute abdominal pain which has followed the ingestion of a very heavy meal of indigestible material. Condition regarded as intestinal indigestion and medicine given to correct same. In a very few hours the most agonizing pain followed by general peritonitis with tympany, vomiting, inability to pass flatus or to move the bowels occur. Patient greatly depressed, showing all the evidences of shock. Surgeon is consulted, advises against operation. Death. Autopsy—perforated appendix, general peritonitis with a belly full of pus. The three characteristic signs present in this condition worthy of mention are a bright eye, active brain and swollen belly.

Under the influence of rest, diet, purgation and local sedatives the symptoms may moderate or subside entirely, but often this serves as a fatal trap, as gangrene of the appendix may induce just such a result. What follows? When the peritoneal adhesions are insufficient, or in those rapid cases in which nature has not had time to throw out her barriers, the general peritoneal cavity becomes infected, the abdomen becomes more and more distended, there is persistent and uncontrollable nausea with vomiting and the patient becomes moribund. I operated upon eleven such cases in 1901, in every one of which the patient died. The other result of advanced appendicitis is the formation of a localized collection of pus about or near the appendix. In examining such a case the patient tells us that he has been sick for about a week, was treated with ice-bags and purgation, perhaps with opium, and was told he was suffering from inflammation of the bowels, or a mild attack of appendicitis. Just before admission his physician informs him that his appendicitis has increased in severity and that an operation is necessary. He now complains of pain over the appendix, there is tenderness with rigidity of the overlying muscles and palpation detects a more or less circumscribed tumor in the right iliac region. The tumor is generally firm, tender and rounded, sometimes fluctuating. It is due to the peri-appendicular exudate, the thickening and induration of bowel and omentum. Disturbance of the sympathetic nerves and the effect of pressure when the pus is in the pelvis may give rise to rectal and vesical irritation and will account for the left-sided manifestations of the disease.

The patient with such a condition is, as a rule, confined to his back, but I have seen patients walk into the hospital with a halting gait and suffering agony, who on examination proved to have an abscess the size of a fetal head in the right iliac fossa.

The differential diagnosis between appendicitis and other inflammatory conditions simulating this affection is sometimes impossible to make. In the majority of instances, however, in which the difficulty would arise, the cases are not seen early in the attack. In a previous paragraph I have referred to a class of cases which are fulminating in type. If not seen early, these may be confused with a

perforating gastric or duodenal ulcer, or possibly with a perforated typhoid ulcer. In these instances the previous history of the patient is of the utmost importance; this is too well known to bear repetition. The fact that acute appendicitis almost invariably occurs in patients previously well and that the greatest intensity of the physical symptoms will be found in the lower right quadrant of the abdomen should suffice for a diagnosis. Both conditions require an immediate operation, if seen early enough.

In another class of patients there is so much adipose tissue that any accurate palpation is out of the question, in which event we must rely on the early history, the subjective symptoms and such facts as we are able to glean by abdominal palpation and rectal examination.

Carcinoma of the colon with ulceration and perforation may cause a localized collection of pus, but we have the history of long-standing disease with cachexia, the age of the patient and perhaps mucus, blood and pus in the stool.

Cholelithiasis. The diagnosis between suppurative conditions about the gall-bladder and peri-appendicular abscess, especially when the appendix points north, may be a very difficult one. The former condition is usually associated with, and the result of, gall-stones which have exerted a traumatic influence upon the walls of the gall-bladder, and in the presence of infecting bacteria there results a suppurative inflammation of the mucous membrane with, perhaps, necrosis and rupture of the gall-bladder. The pericholecystitis with its adhesions will usually protect the peritoneal cavity and the pus, traveling in the line of least resistance, would soon point toward the groove between the colon and the lateral abdominal wall. This is the course that an appendiceal abscess would take in traveling upward. The presence of jaundice cannot be depended upon, for it is frequently absent. A history of previous attacks of gall-stone colic should be sought for. The point of greatest pain will usually be located at a point near the center of a line drawn from the tip of the ninth rib of the right side to the umbilicus. The pain may radiate to the right shoulder.

A careful examination of the abdomen in appendicitis will disclose the location of the pain, tenderness and rigidity to be below the level of the umbilicus and confined to the right or to the left iliac region where the appendix occupies the pelvis. If seen early enough, palpation of the appendix may be possible unless there is an excessive deposit of adipose tissue in the abdominal wall.

Of course the presence of calculi in the stools, jaundice and biliuria would decide the diagnosis.

In empyema of the gall-bladder an important point to remember is that early in the disease, before marked adhesive pericholecystitis has taken place, the distended gall-bladder will be found to move with respiration and to present itself beneath the margin of the ribs as a fluctuating rounded tumor.

Acute appendicitis, especially the fulminating type, might be confused with acute pancreatitis. But the

pancreatic lesion is usually met with in a hearty, well-fed man, who is suddenly seized with acute pain in the epigastrium associated with vomiting. There is very rapid collapse and the patient soon appears to be extremely ill, more so than the extent of the lesion would seem to warrant. Distention is an early symptom and there is usually an inability to outline any definite tumor. Early symptoms of peritonitis soon show themselves and it may even be impossible to make the distinction between pancreatitis and acute intestinal obstruction, because the rapid infection of the peritoneum from the former will cause a paresis of the bowel just as surely as a true obstruction.

Distention is a late manifestation of appendicitis unless opium has been administered, or in the rapid cases of the fulminating type.

Acute intestinal obstruction should not be confused with appendicitis unless peritonitis has ensued or opium has been indiscreetly administered. The absence of temperature and a low pulse, the paroxysmal abdominal pain with inability to pass flatus, or in partial obstruction the passage of flatus without fecal movements should make the diagnosis.

Abscess of the abdominal walls might be mistaken for acute appendicitis; there is, however, an almost entire absence of the usual phenomena of appendiceal disease; while there may be pain, tenderness and rigidity of the abdominal walls, it will be noticed that the painful swelling moves with the abdominal wall during respiration, and with a previous history of the case it makes it sufficiently clear to stamp it as a purely local lesion.

Ptomain poisoning, or food infection, often gives rise to symptoms which strikingly resemble those of acute appendicitis.

In both the onset is similar; that is, the patient suddenly develops acute abdominal pain, nausea and vomiting. An inquiry will elicit the information that in ptomain poisoning he has partaken of certain foods known to be capable of causing food infection, especially during the summer months—such food as oysters, lobsters, crabs, canned meats, sausages, ham, cheese, ice cream, cream puffs, etc.

For twelve to forty-eight hours the patient will be quite well or merely suffer fleeting abdominal pains, and then will suddenly develop violent epigastric pain associated with nausea, vomiting, diarrhea and marked constitutional disturbances. The temperature becomes subnormal and symptoms of collapse advance, with clammy skin and a rapid feeble pulse. The pain is continuous and not paroxysmal like acute appendicitis, and the collapse is more sudden and more complete. In addition there may be nervous manifestations, such as muscular twitchings, delirium, cramps in the legs, etc.

The writer has already placed himself on record as being opposed to placing such an absolute dependence upon the presence or absence of a leukocytosis as to allow this one clinical symptom to direct the treatment of a case. When a physical examination shows that an abscess exists in the absence of diffuse peritonitis, we promptly operate without delay. Every case of acute appendicitis at the Ger-

man Hospital has a leukocyte count made shortly after admission and a free use is made of the finding in forming the diagnosis; but never on this alone, always correlating the blood count with the symptoms found at the bedside. The result of the blood count is of the greatest value in ruling out ovarian cysts and movable kidney, for instance, which, by their position, may simulate a pus collection. But it must be borne in mind that an abscess, which is well walled off and in the pus of which the bacteria are innocuous, may be plainly palpable and yet show a normal count of white bloodcells. We have found that in most cases of peri-appendicular abscess a well-marked leukocytosis is present, usually from 15,000 to 20,000 to the cmm. unless the leakage is marked and the absorption so great as to cause profound systemic poisoning of the individual. Gangrene of the appendix has also been found to cause no increase in the number of leukocytes.

The relation of leukocytosis to appendicitis is as yet too little known and the theories too chaotic to place great dependence upon this clinical entity.

The recovery of a patient with a collection of pus in the abdominal cavity is problematical and the convalescence is always protracted, lasting from four or five weeks, in the most favorable cases, to as many months in the worst. Evacuation of the pus is necessary to prevent the death of the patient from sepsis, and it occasionally happens that, in addition to the primary collection, there exists a secondary focus, which exposes the patient to an additional risk to life. After the evacuation of an abscess the resulting cavity must heal by granulation, cicatrization and contraction. As a result of the contraction of the abscess wall the contiguous coils of bowel, which form in part the restraining barrier, may be partially or wholly obstructed. It occasionally happens in such a case that about two weeks after operation the patient is suddenly seized with nausea and vomiting, paroxysmal pain in the abdomen and inability to pass flatus, despite the use of repeated enemata; this means an immediate re-operation, and in the presence of an infecting wound this class of cases gave sixty per cent. mortality of ten cases re-operated during 1901 in the author's practice.

That any doubt should exist in the minds of the medical profession as to the most favorable and therefore the proper time to operate in acute appendicitis is incomprehensible to the writer.

A comparison of the operation performed during the early hours of an attack of appendicitis, prior to pus formation, and one complicated by an abscess, cannot but give a decided preference in favor of the early operation. On the one hand, a small incision separating the fibers of the right rectus, an inflamed appendix cut out of the cecum, with the wound in the latter easily sutured, the abdominal wall closed with tier sutures, with no fear of a resulting hernia and an easy two weeks' convalescence. On the other hand, a late operation with a large abscess, containing foul pus; this must be cleansed and drained, usually with many pieces of

gauze, with a long wound only partially closed, which must heal by granulation. In the latter condition peritonitis, secondary abscess, fecal fistula and intestinal obstruction are to be feared, with a protracted convalescence and a hernia as a sure sequel in the future. In addition, as a result of long sepsis it is not uncommon to have a phlebitis of the lower extremity which may impair functional recovery for many months, and in a few instances permanently.

A class of cases, in which uncertainty may arise as to the advisability of immediate operation, is composed of those patients suffering from appendicitis who have been sick for from twenty-four hours to several days, in whom there is either excessive tympany or a general peritonitis. Whether this peritonitis is without exudate, or whether free pus exists generally, cannot be determined.

In discussing the merits of the case before us we must remember the tremendous responsibility imposed upon the eminent physicians attending His Majesty. They were called upon to decide a most momentous question, not only the nature of the ailment, but the proper line of treatment as well. The improvement in his condition, together with other weighty reasons, justified them in the course which they have pursued. The entire English nation was waiting for their decision and their action, and to the King the thought of an operation on the eve of the greatest day of his life, to say the least, was most demoralizing and bespoke the sympathy of the entire world.

The trend of surgical teaching in England leans toward conservatism and this, no doubt, influenced their decision. The operation performed was the simplest under the circumstances and, barring further complications, the prognosis is fairly hopeful.

Whether the results of the evacuation of an abscess without further search for the appendix will influence surgical thought in this country is hard to say, but I still maintain that in skilful hands the completed operation with removal of the diseased appendix is the soundest procedure. Better take out a healthy appendix and have the patient recover, than a diseased one and have the patient die.

The Prophylactic Use of Diphtheria Antitoxin.—Dr. Sevestre, the well-known French authority upon diphtheria, has recently reviewed the subject of the prophylaxis of diphtheria by preventive injections of antidiphtheria serum. (*Bulletin Médical*, March 19, 1902.) After giving many details, he states that preventive injections of antitoxin produce immunity in children exposed to diphtheria. Serious accidents have never followed the use of well-prepared serum, though an eruption or some joint pains may result. But this immunity only lasts 3 or 4 weeks at most. Should diphtheria develop after the injections, it is very mild in character. Preventive injections are especially indicated in a family, school or hospital, in which a case of diphtheria has appeared. They are often of value in a ward containing patients with measles or scarlet fever. Large doses, often repeated, are needed in measles. It should not be forgotten that, even though these injections be given, disinfection and isolation are nevertheless necessary. The prophylactic use of serum is recommended by the Pediatric Society and the Academy of Medicine of Paris.

[M. O.]

Original Articles.

PROGRESS IN NEUROLOGY:*

THE PRESIDENTIAL ADDRESS AT THE MEETING OF
THE AMERICAN NEUROLOGICAL ASSOCIATION.By JOSEPH COLLINS, M. D.,
of New York.

In opening this, the Twenty-eighth Annual Meeting of the American Neurological Association, it may be permitted your president to dwell for a few moments upon the prosperity of our Gild; a prosperity that is shown by its full membership, its waiting list, and by the character and the amount of work that it has done, particularly in the last few years. Finally, I desire to say a word on the influence that this Association has had in promoting mutual respect and good fellowship among those laboring in the field of neurology throughout this country.

When one examines the transactions of the Association in its earlier years, he sees at once the great change that has come about. In 1877, there were 36 members in the Association and at the Annual Meeting held at New York the attendance was 12. Only one member came from out of town, and he came, probably, because he was President. Six years later, in 1883, the membership had increased somewhat, but only 14 members attended the meeting that year. About this time many of those who have since been the vertebræ and brain of the Society came in, and by their suavity and earnestness counteracted the internal dissension which threatened to wreck the Association. At the same time they gave it a scientific atmosphere which has succeeded in bringing the Association to its present proud place among the national societies.

To-day, the membership is full, there are several names already familiar to neurologists on the waiting list, and the number of papers presented is so great that they cannot be got through with in the three days which we devote to our meeting. As to the quality of the work indicated by the program, all that can be said is that it is our best. We should not be expected to put further estimation upon it.

In a large body such as this, Death the Inevitable, takes yearly from our membership. At this meeting the Chair fortunately has but two to record. The brightest light in neurology on the Western horizon went out in the death of Dr. Eskridge. A Pennsylvania man, driven from a career on his native heath by tuberculosis, he obtained within few years in the land of his adoption a secure place in the affections of his fellow-workers at Kansas City, and in the estimation of his fellow-specialists in the entire country. As a clinical neurologist Dr. J. M. Eskridge had few superiors. As an earnest, conscientious, hard worker, he had none.

Dr. Charles Henry Brown, who was well known to all of us, found the *Journal of Nervous and Mental Disease* in a defunct state. After several years of

struggle, during which time he gave to it his best energy and his most strenuous concentration, he had the satisfaction of knowing that it stood the test of comparison with the best of the special journals.

A pioneer in neurology died a few weeks ago. When Meredith Clymer began his studies of nervous disease, the field was as trackless and unbroken as the region beyond the Alleghenies when Daniel Boone broke its virginal soil. Two generations have come and are going since then, and while the opportunity offers, one of the latter generation desires to record an appreciation of the truly remarkable work which this Nestor of American neurologists did nearly a half century ago. He had withdrawn from the field before this Society was organized, therefore his name is not associated with its annals. But in the proceedings of that great unorganized Society, the "World's Best Work," his name is distinctly to be read.

I venture to believe that the President of this Association can serve its members in no more satisfactory way than by putting before it briefly, as the time compels, a succinct epitome of the most important work that has been done in neurology during the term of his office. This I shall now attempt to do. Although no epoch-making contributions have been recorded, examination of the literature shows that there has been no dearth of effort to solve the many problems in anatomy and pathology with which we are confronted.

The first and most important question is: What is the status of the neuron doctrine to-day? Is the neuron an anatomical, pathological, developmental and functional unity, such as the vast majority of neurologists have believed it to be during the past ten years, or is it necessary in view of recent investigations to change our conception of the neuron, not only in regard to it as a unity, but as to its mode of communication or connection with other neurons.

Five years ago many believed that Apáthy dealt the neuron theory a staggering blow when he showed that in the ganglia of the leech and the earthworm there was a fibrillar network which passed without breach of continuity between and through the bodies of nerve cells. Although Apáthy's claim has not been verified by others, or further substantiated by himself, the investigations of Held tend to corroborate, in a measure, Apáthy's claim. Held has shown that in the cells of several nuclei of the pons, in the cortex of the cerebellum, and in the anterior horns of the cord of the rabbit, it is possible to trace an increasing intimacy of union between terminals and axons and cell-bodies. About the time of the animal's birth the terminals come in contact with the cell-bodies and gradually fuse with it by a process which Held calls "concrecence." This concrecence is first evidenced by a layer which is more highly refractive than its surroundings, and, later, by slightly different texture and staining reaction. There have not been lacking other investigators who have maintained with more or less convincing argument that there is structural connection between neurons. Hill, as

*Read at the meeting of the American Neurological Association in New York, June 5, 1902.

you know, described a continuity by means of fine, cord-like threads, stretching across from fiber to fiber, and Verworn¹ says that in adults in many cells there is direct continuity.

The results of these investigations are not in reality antipathic to the neuron theory at all, when the theory of the neuron's individuality and discontinuity is not held too strictly,* nor do all of the investigators just mentioned believe that their findings invalidate the neuron doctrine. Held, for instance, distinctly disclaims such imputation. The concrescence of Held does not bespeak a structural communication between the neurons. It assumes that embryologically the units are anatomically independent, but that in later development there is a fusion without structural blending. It seems to me that it must be conceded that ontogenetically neurons become more intimately united in series, and that such intimacy is structurally heightened by use.

Although the conclusions of the authors just mentioned can be reconciled with the neuron doctrine, as it is interpreted to-day, the recent work of Bethe³, and Ballance and Stewart⁴, presents greater difficulties. Acceptation of their conclusions seems to demand that the position which neurologists have taken in reference to the unity of the neuron be materially modified. These authors, attempting to solve the problems connected with the healing of nerves, seem to have demonstrated that the process of regeneration of peripheral nerves is conditioned by protoplasmic proliferation of the sheath of Schwann, the process being one of karyokinesis from pre-existing cells, and that it is not at all influenced by the ganglion cells from which it has been severed. Bethe, working with puppies and rabbits, has shown that after a peripheral nerve is completely cut across and the distal end wholly degenerated, complete regeneration of the distal or peripheral segment occurs; not only anatomical regeneration, but physiological as well, which is, however, more complete in lower animals. Ballance and Stewart, in their work on the Healing of Nerves, corroborate Bethe in nearly every detail. Bethe has shown further that if the peripheral portion of a nerve which has degenerated, and which has been kept from uniting with the trunk from which it was originally severed, be cut across again, the central end, that is the end which has now no axonal continuity in either direction, does not degenerate. This shows that not only the new axis cylinders develop from pre-existing cells and are in no way outgrowth from axis cylinders in connection with cell-bodies, but it reduces the matter to an admission that a portion of nerve cut off from all connection with the ganglion cell can, under certain circumstances, take care of itself. This is so revolutionary that we must have very substantial corroboration of it before it can be accepted.

Bethe further maintains that in puppies, at a time when as yet no nerve fibers have appeared in the spinal cord, the locality which the fibers occupy later is indicated by rows of cells which can be

followed from the cord to the primitive muscle substance. From this he infers that the first *Anlage* of the nerves consists of cells. This multicellular development of the axis cylinder is, as is well known, the claim of Balfour, Beard, Kupfer, Dohrn, Tizzoni and others. It is entirely irreconcilable with the embryological results of His and of Kölliker, not to mention others of the great number who teach that each axon is the mere outgrowth of processes of a nerve cell. It is no less directly contradictory to the teachings of Huber, Stroede, Vanlair, Harrison and others, that regeneration of the peripheral nerves after division of them is by a process of downgrowth from the axons of the central segment.

In further corroboration of his contention regarding the development of the axis cylinder of the neuraxon, Bethe claims that when the first fibers are to be seen coming out from the spinal cord one may find contemporaneously primitive nerve fibers in equal or in greater number in the muscle, which speaks in favor of the view that the primitive nerve fibers develop along the whole line at about the same time. With the same distinctness that prolongations of the neuroblasts from the motor roots are seen, one can see remote from the spinal cord the central prolongations of those bipolar cells of the primary *Anlage* of the nerves which stream far distant into the cord, and from such pictures he concludes that the peripheral "nerve cells" develop the nerve fibers as far as the ganglion cells. In the main, the experiments of Ballance and Stewart corroborate those of Bethe, particularly in the conviction that the true source of the regenerative process in peripheral nerves is not the cells of the anterior cornu or posterior root ganglion, but the neurilemma cells of the nerve trunk itself. Upon the question of the embryonic origin of the neurilemma cells they are not decided. They believe, however, that the peripheral nervous system is to be regarded as composed of chains of neuroblasts, fused together to form continuous axons enclosed within medullary and neurilemma sheaths. For them the presence of a neurilemma sheath is of fundamental significance, since upon the presence of neurilemma cells depends the possibility of regeneration.

For these investigators the neuron theory is no longer tenable. Bethe has convinced himself that the theory as accepted at present by the majority must be foresworn. He has suggested that the entire nervous system be conceived of as made up of a large number of cell-societies which are brought into functional interrelationship by means of the neurofibrillæ. One may call such a cell-society a neuron, a ganglion cell being its morphological center of gravity, but not its trophic and functional center. A cell-society may be made up of few or of many cells. In addition there would be other cell-societies which lack these morphological centers, for instance, the intracentral fibers, the existence of which Bethe seems to be as certain of as is Nissl. Other cell-societies (muscle, gland, reception cells, etc.) are in inner functional and trophic relationship

*As Verworn (2) truthfully says: "Contact anastomoses through fibrillæ or concrescences do not change the neuron theory any more, than the intercellular bridges change the cell theory."

with the nerve cell-societies, this relationship being founded on the fact that the entire animal is an organism, but not the cells which constitute it.

This conception of Bethe seems to me very rational. If it can be maintained that the neuron cell-unit is made up of several cells, it will prove a valuable hypothesis. To discuss it, however, would presuppose an acceptance of Nissl's claim that the larger part of the human gray matter is made up of Apáthy's fibrils in a free condition outside of cells, or, as he calls it, a specific nervous substance derived probably from the protoplasm of the nerve cells, and which represents the highest stage of differentiation of the cell plasma within the animal body. It does not seem to me that the time is yet ready to pass judgment upon this claim, because the principal evidence for the existence of this substance is theoretical, being based largely on the assumption that the higher the grade of development of an animal, the fewer nerve cells inhabit an equally large volume of the cortex, and that in the human cortex it is impossible to account for the whole mass of the gray matter as nerve cells, their processes and neuroglia; for when these are subtracted there remains a very considerable amount of substance not accounted for.

The work of Bethe has only been published in abstract, and final judgment of it must therefore be reserved. The work of Ballance and Stewart, however, has been published in detail, fully and beautifully illustrated. As their conclusions are in accord with a small number of thoroughly accredited investigators, they must be accepted, until such time, at least, as they are shown to be erroneous by other investigators working with the same method. It is possible that we shall have to modify materially some of the teachings of the neuron doctrine, but so far, I venture to believe, nothing has been discovered with which the neuron doctrine properly conceived cannot be made to harmonize.

In reviewing the field of clinical and pathological neurology I shall confine myself briefly to some of the most important. American contributions will not be considered; not because there are not many milestones indicating the progress of neurology in this literature, but because the Chair does not allow itself the liberty to discuss *ex cathedra* your work.

The most important contribution to the subject of localization of function in the cerebral cortex is the report on the physiology of the cortex of some of the higher apes, by Sherrington and Grünbaum⁷. Their investigations on chimpanzees, orangs and gorillas extend and correct our knowledge of localization. In the main they corroborate the investigations of Bevor and Horsley. In two important particulars, however, they differ, that, is, first, that stimulation of the ascending parietal gyrus causes no movement, and, secondly, the representation of the movements of the chest and abdomen between those of the hip and shoulder and those of the neck between those of the face and thumb. Flechsig's⁸ last contribution to the myelogenetic localization of the cerebral cortex contains no important facts that have not before been set forth. Formerly he dis-

tinguished forty myelogenetic areas. This is now reduced to thirty-six. Every area possesses a special anatomical position and therefore a special functional importance. He maintains that the inferior longitudinal fascicle is an important projection system (the real optic radiation) and that the cingulum is likewise a projection system. These have recently been described by Monakow and Déjérine as association systems.

Munk⁷, in a third communication on the extent of the sensory sphere in the cerebral cortex, concludes from critical sifting of the experimental, clinical and pathological material, that neither the cortex of the frontal lobes nor the cortex of the parietal lobes have special localization of the higher psychical functions. Flechsig's teachings relative to the association areas are erroneous, he maintains, and there is no special portion of the brain that is uniquely concerned with the psychical functions. In this connection it is interesting to refer to the conclusions of an American surgeon, Charles Phelps⁸, who maintains from a study of brain injury and disease that the left prefrontal lobe is the important seat of the mental faculties.

During the past year there has been much discussion of the reflexes and tendon jerks. A few new reflexes, like the supra-orbital, palmar, scapular and a number of pupillary reflexes, have been described. Some of these are awaiting corroboration as to their existence and elicitation, while the final value of others is still to be determined. By far the most important work in this direction, however, has been the corroboration of the statement made by its discoverer that the big toe phenomenon (the so-called Babinski reflex) is a semiological indication of no less importance than the knee jerk or the ankle jerk, and that, when it is present in typical or genuine fashion, that is, a slow dorsiflexion of the great toe, depending upon vermicular contraction of the muscles, it is absolutely pathognomonic of degeneration in the crossed pyramidal tracts. The existence of the phenomenon in children before they have learned to walk has been of aid in putting interpretation of the physiological basis of the reflexes and in determining the function of the pyramidal tract, which latter point is still awaiting a final and satisfactory conclusion.

Of some practical, but of much more theoretical importance, is the "tibial phenomenon" to which attention has again been called by Strümpell⁹, he having described it first a number of years ago. It consists of dorsiflexion of the foot, occurring involuntarily and beyond the patient's control when the thigh of a hemiplegic limb is flexed upon the abdomen. When the normal thigh is flexed upon the abdomen, the foot of that side falls into plantarflexion and continues to droop as the thigh is flexed. In a hemiplegic extremity, or in a leg motorily incapacitated by lesion of a pyramidal tract, the reverse of this takes place. Strümpell points out that the area of the pyramidal tracts in the lower dorsal and lumbar region is not commensurate with the immense amount of the peripheral neuraxon matter which goes to these extremities, and infers that

the subject of the distribution of the central motor neurons in the cord may be a fruitful subject to study.

An important contribution to the topography of the spinal cord and the oblongata is that of Thiele and Horsley¹⁰, who traced the degenerations in the central nervous system in a case of fracture dislocation of the spine. They conclude that the fibers of the direct cerebellar tract terminate mostly in the superior vermis; that Gowers's tract is, as Mott has shown, a complex of several systems, spinocerebellar, spinoquadrigeminal and spinothalamic. Other questions of importance relative to the fasciculus spinoquadrigeminalis and the fasciculus spinothalamicus, the solution of which has been facilitated by this work can here only be hinted at.

In the domain of pathology comparatively little work of any great importance has been done. One of our own members has published in *Brain* certain changes in the central nervous system which it is maintained constitute parenchymatous systemic degeneration. The change is that of axonal reaction in the cells of Betz and decay of the myelin sheath of some of the corresponding sensory fibers. These cases clinically do not permit of classification, but the alteration has been found to occur in peculiar forms or end stages of depressive disorders, near or after the climacteric, alcoholic, senile and phthisical idiocy, and perhaps also general paralysis. I am pleased to note that Dr. Meyer will demonstrate some specimens of the condition at this meeting.

It has been quite generally believed that many or all nervous diseases now classified as functional will eventually resolve themselves into conditions that are discernible to mechanical and chemical technique. Although this will never be realized, there can be no question that many of the diseases that are now classified as functional or dynamic and the result of intoxication or infection, will eventually be so interpreted. Gastric tetany is a condition which is theoretically supposed to be the result of the activity of a toxin generated in the stomach upon the peripheral neuromuscular apparatus, and Rossolimo¹² has recently found in a case of gastric tetany changes in muscles and nerves characteristic of mild inflammation. The inference is that in the milder cases an auto-intoxication results which is comparatively transient, but in the severer cases extensive lesions, which are protracted in their duration, may be the result.

From the time of the publication of the researches of Achalme¹³, Riva¹⁴, Apert and Triboulet¹⁵, Poynton and Paine¹⁶, showing that rheumatism is an infectious disease depending upon a specific organism, those who believe in the close relationship between chorea and rheumatism have been on the lookout for material that would show the existence, in acute chorea, of organisms similar to those described by the investigators mentioned above. Preobajensky¹⁷ has recently published a case in which there were found at the autopsy the lesions of hemorrhagic lepto- and pachymeningitis and acute infectious cerebritis, all of streptococcic origin. Cultures of streptococci were obtained from the blood and from

the brain. The writer remarks that the necessity of differentiating the different forms of infectious chorea exists in order that a rational therapy may be applied. In such case it would have been an anti-streptococcus serum. But we will have to make long strides in hematology before such differentiation can be made.

The pathological anatomy of general paresis is by no means so thoroughly understood as it is commonly believed to be. Some important studies recently made in this disease are those of Schaffer¹⁸, of Budapest, and Storch¹⁹, of Breslau. The former has shown that the disease has an elective affinity for Flechsig's association centers, that is, the frontal, parietal, postcentral, insular, the second and third temporal gyri and the gyrus fornicatus. He concludes that his findings support Flechsig's theories, and that the cortical degeneration of paresis is not an irregular diffuse process, but a regular localized elective or selective affection of the cortex. This is in the main corroborative of Storch, who has shown that in atypical cases of general paresis those portions of the brain were affected the functional allotment of which is such that disease of them would be presupposed from a consideration of the principal symptoms.

A highly suggestive and intrinsically valuable contribution is by Mott and Halliburton²⁰ on the chemistry of nerve degeneration, in which it is shown that excess of cholin, a product of the decomposition of lecithin, occurs in many nervous diseases, the morbid anatomy of which consists in degeneration of the nerve substance, such as general paresis and various diseases of the central and peripheral nervous systems.

A disease the occurrence and causation of which is quite as mysterious as it was when first described, and the secret of the existence of which is wholly concealed, is that known as family periodic paralysis. It is generally supposed by those who have worked at the subject that the disease is due to some form of toxemia. Westphal suggested this idea, and Goldflam elaborated it, and although different observers have suggested that the toxin acts upon different parts of the nervous system, they are all agreed upon the probability that the disease is due to a toxin. Unfortunately, no light is thrown upon this subject by the most recent communications (Singer²¹). From a study of the electrical reactions in a patient with this disease, Oddo and Darcourt²² conclude that the seat of the affection is the muscles, and they consider the disease a variety of myopathy, essentially functional in character. Mitchell, Flexner and Edsall in a recent article suggest that the attacks are due to metabolic disturbance and that this disturbance may be situated chiefly in the muscles.

Asthenic bulbar paralysis is another disease in which a toxic substance, generated within the system, is supposed to be the exciting cause of the attack. Although the subject has received a great deal of attention during the past year and a few cases have been carefully studied post mortem, nothing has so far been found that tends to strengthen this theory, or to substantiate the existence of any such poison. Of considerable interest, however, is the existence

in the cases published by Laquer²³ and Goldflam²⁴ of malignant disease, of the thymus in the case of Laquer, and of the lung in the case of Goldflam. In both instances there were changes in the muscles which were considered to be metastatic from the tumor. That such findings must be looked upon as coincidents and have nothing at all to do with the real pathogeny of the disease seems to me incontrovertible. The number of recoveries from this disease is by no means small, which would alone negative such idea. I have had personally under observation during the past eight years a patient who has been free from any symptoms for more than three years.

It has always been a matter of great doubt with American neurologists that syphilitic polyneuritis exists. Cestan²⁵ has recorded three cases which he believes establish the occurrence of this condition. Taken in conjunction with what has already been written on this subject by other European writers, it seems to be incumbent upon us to examine into the subject a little more closely.

Ferrier and Turner²⁶ have shown the relatively small functional value of the quadrigeminal bodies in man and in monkeys. Destruction of them causes only transitory symptoms. This is in entire harmony with the present trend of experimental physiology.

The hypophysis cerebri has been the field of much experimental work during the past fifteen years, and especially since its supposed relationship to the development of acromegaly. The conclusions of the different investigators up to the present time have seemed to be quite irreconcilable. During the past year a number of monographs and essays have been published by men whose reputation for reliable investigation has been already established. Casselli²⁷ states that complete abolition of the hypophysis produces in the first place a slowing of the respiration, an acceleration of the pulse, diminution of the psychical function, hypertonia of the muscles, convulsions, progressive cachexia, coma and death. In many respects the symptoms following extirpation of the hypophysis are similar to those of diabetes. The author concludes that this organ is necessary to the human economy, and that it has a specific internal secretion, a modification of which brings about grave alterations in metabolism.

The statements of Casselli's are corroborated in great detail by Cyon²⁸, who, by the way, seems convinced of the etiological relationship between disturbance of the hypophysis and acromegaly. In contradiction to these investigators is the work of Lomonaco and Rymberk²⁹, who make not only a most critical review of the literature, but add the results of their own experiments. They conclude that the hypophysis is a rudimentary organ without general or special functional significance. They maintain that the symptoms which have been described as following extirpation of the gland are due either to injury to structures adjacent to the pituitary, or the result of shock or infection.

Friedmann and Maas³⁰, who performed the operation of extirpation of the hypophysis in 18 cats, reached practically the same conclusion. The status of the function of the pituitary body may, there-

fore, be said not to have materially changed during the past year.

The morbid anatomy of exophthalmic goiter remains as obscure as ever, although no end of research work and anatomical investigation is being done to solve the problem. Recently Kedzior and Zanietowski³¹ have published a preliminary communication which sets forth some findings in a case of this disease of four years' duration. Death was due to an intercurrent attack of croupous pneumonia. In the nervous system the following changes were found: Fresh and ancient hemorrhages throughout the entire oblongata, especially in the vicinity of the left olive, with distension of the bloodvessels. The left restiform body was much smaller than the right. On microscopical examination the degeneration of this restiform body was evidenced by its waxy appearance in contradistinction to the deep red of its fellow of the opposite side. The authors incline to the belief that this change may be taken as the basis of the disease in this instance, though in just what way it caused the symptoms does not seem clear. The recoverability of exophthalmic goiter is the best argument that no such change as that described by these writers is responsible for more than its accidental occurrence. The hyperplasia of the thymus which was found by these writers has also been remarked by a number of others, including Dinkler³².

The findings in the central nervous system of disease of many years' standing, such as paralysis agitans, are not usually looked upon as being of any value whatsoever as indicative of the morbid anatomy of the disease. It is generally recognized that they may more legitimately be the result of the paralysis agitans than the cause. Therefore, the contribution of Walbaum³³ is of no service in interpreting the disease, a conclusion arrived at by the author.

The occurrence of the optic neuritis in lesions of the spinal cord has been studied by Taylor and Collier³⁴, and their conclusions may be regarded as a real contribution to semiology, corroborating as they do the observations of our distinguished and lamented members Seguin and Eskridge. From an analysis of twelve cases, they conclude that optic neuritis of all degrees of severity may occur in connection with tumor, compression, myelitis or hemorrhage affecting in some degree the upper part of the spinal cord.

The therapeutic value of electricity is a subject upon which neurologists differ quite as much in all probability as almost any subject that can easily be mentioned. The chief reason for this is that trustworthy data are not at hand to guide us in putting an estimate upon its value, and not all of us have the time and application to make such data for ourselves. What is needed is reliable experimental work, such as that which gave electrodiagnostics a solid foundation. As an indication of work in the right direction I take this opportunity of mentioning an article by Jellinek³⁵, in which the changes in the tissues, principally the nervous system, produced by electricity, are set forth.

We may count that year barren in therapeutic

suggestion that does not witness a new cure for exophthalmic goiter, but whether the prognosis of the affection is materially altered thereby is doubtful. Abadie and Collon³⁶ give their results with the intrathyroid injection of iodoform and ether, one part of the former to five of the latter. One cubic centimeter of this solution is injected into the thyroid gland. The method was introduced by Pitres, who claimed satisfactory results from it, and the investigators just quoted claim to have had equally gratifying experiences, claiming twelve cures out of twenty-four cases. It must, however, be said that the cure of a case of exophthalmic goiter has no particular significance. We must know what sort of a case it is, meaning thereby that some cases are cured by anything, while others withstand everything.

It is a matter of disappointment that the Röntgen rays have not been of particular service to the neurologist in his struggle with disease, either in their diagnosis or their cure. But recently it has been shown by one of our members, Mills, in conjunction with Pfahler³⁷, that it is possible that they may be of service in the recognition or corroborative recognition of some tumors of the brain.

Amongst the most important clinical contributions of the year is one from England.

Dr. Henry Head³⁸, a few years ago, while still a hospital interne, instituted and carried out an investigation on the relationship of disease of the internal organs to superficial pain radiating around the surface of the body, and the tenderness of its superficial covering, that put him at once into the first rank of neurologists and established his right to be heard attentively to any claim that he might put forth. In the Gulstonian Lectures for 1901 he has attempted to show how far the intrusion of stimuli arising from disorder of the viscera upon the nervous system is accompanied by changes in consciousness. In other words, the changes in consciousness associated with the reflected pains of visceral disease. His explanation of these changes in consciousness, that is, of hallucinations, moods, suspicions and changes in memory and attention, is simple: Under normal circumstances visceral life takes place outside consciousness; the visceral field is pushed out of consciousness and its records remain only as latent dispositions. A complete change takes place when the reflected pain of visceral organs comes into existence. They crowd into consciousness, usurping the central field of attention. It brings in its train all those images and dispositions which exist normally at the fringe of, or entirely outside of, the field of consciousness. The barrier which the normal mind sets between conscious life and that of the viscera is broken down. The importance that this study has in the interpretation of such diseases as hysteria, neurasthenia and some other of the so-called functional nervous diseases, as well as the relationship which exists between diseases of the viscera and certain mental disorders, including hypochondria, is so great that the subject should be pursued by every neurologist to whom the opportunity is offered.

From this brief and cursory reference to some of the most important contributions of the year it is seen that there has been more than usual activity in the realm of neurology, and although no contribution that can be regarded as epoch-making has been made during that time, the charge that neurologists have become sterile and their fields of labor have gone to seed can scarcely be maintained. Questions of the vastest import in every department of neurology are awaiting solution, and the stimulus which one receives from meetings such as this furnishes the impulse and renews the strength whereby we are enabled to lift fold by fold the veil from before the face of Isis, in whose lineaments we may then discover an expression of those revelations of the Book of Wisdom which we are able barely to guess at to-day.

Before declaring this meeting open for the transaction of scientific business I wish to thank you for the honor that you have conferred upon me in placing me in the Chair, and to bespeak your aid and co-operation in making this meeting the success which it bids fair to be.

1. Hill, Brain, Vol. XX, 1897.
2. Verworn, "Das Neuron in Anatomie und Physiologie", Jena, 1900.
3. Bethe, Neurologisches Centralblatt, No. 14, 1901.
4. Ballance and Stewart. "The Healing of Nerves", The Macmillan Co., 1902.
5. Sherrington and Grünbaum, Proceedings Royal Society, November 21, 1901.
6. Flechsig, Lancet, October 19, 1901.
7. Munk, "Sitzungsberichte der kgl. preuss. Akademie der Wissenschaften zu Berlin", 1901, XLVIII.
8. Phelps, American Journal Med. Sciences, May, 1902.
9. Strümpell, Deutsche Zeitschrift f. Nervenheilk., Vol., XX, 1901.
10. Thiele and Horsley, Brain, Vol. 24, 1901.
11. Meyer, Brain, Vol. 24, 1901.
12. Rosolino, Neurologisches Centralblatt, No. 5, 1902.
13. Achaume, Annales de l'Institut Pasteur, 1897.
14. Riva, Centralblatt f. innere Med., 1897, p. 825.
15. Apert and Triboulet, Compt. rend. Soc. de Biol., 1898, p. 128.
16. Poynton and Paine, Lancet, September 22 and 29, 1901.
17. Preobajensky, Neurologisches Centralblatt, page 182, 1902.
18. Schaffer, Neurologisches Centralblatt, page 54, 1902.
19. Storch, Monatsschrift f. Psych. u. Neurol., No. 1, 1902.
20. Mott and Halliburton, Philosoph. Trans. Series B., CXIV, p. 437.
21. Singer, Brain, 1901, page 257.
22. Oddo and Darcourt, Archiv. de l'Electricité Experimentale Clinique, January, 1902.
23. Laquer and Weigert, Neurologisches Centralblatt, 1901.
24. Golflam, Neurologisches Centralblatt, 1902.
25. Cestan, Nouveau Icon de la Salpêtrière, 1900, XIII, page 153.
26. Ferrier and Turner, Brain, 1901.
27. Casselli, "Studi anatomi e sperimentali sulla fisiopatologia della ghiandola pituitaria" (Stefano Caldari a figlio, Reggio nell' Emilia).
28. V. Cyon. Pflüger's Archiv, LXXXVII.
29. Lomonaco and Van Kymberk, Rivista Mensile di Neuropat. e Psich., 1901, Nos. 9 and 10.
30. Friedmann and Mass, Berliner klin. Woch., No. 52, 1900.
31. Kedzior and Zanietowski, Neurologisches Centralblatt, page 408, 1901.
32. Dinkler, Münchener med. Woch., No. 21, 1900.
33. Walbaum, Virchow's Archiv, vol. CXIV, part 2.
34. Taylor and Collier, Brain, Winter 1901.
35. Jellinek, Wiener klin. Woch., Nos. 16 and 17, 1902.
36. Abadie and Collon, Revue Neurologique, January, 1902.
37. Mills and Pfahler, Phila. Med. Jour., February 8, 1902.
38. Head, Brain, Autumn Number, 1901.

An Epidemic of Diphtheria.—Thierry and Bertail recently reported an epidemic of diphtheria in and near Argenteuil, France. (*Bulletin Médical*, March 19, 1902.) On July 2, 1900, a patient with diphtheria arrived from Dijon. Up to March 9, 1902, 79 cases of diphtheria had occurred. All the patients received from 10 to 20 cc. of antitoxin when first seen, and in many cases this was repeated in a day or two. Of the 79 cases but 2 died, and one of these was the original patient from Dijon. Slight paralysis occurred in but 4 cases. The case-histories of all 79 patients are given in detail. These results show the great efficiency of antidiphtheritic serum. [M. O.]

CARCINOMA OF THE EYELIDS, WITH SECONDARY INVOLVEMENT OF THE EYEBALL; REMOVAL OF THE GROWTH BY EXTENSIVE PLASTIC OPERATIONS; RECURRENCE.

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and EDWARD A. SHUMWAY, M. D.,
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CLINICAL REPORT BY DR. POSEY.

S. L., female, 61 years old, came to the Howard Hospital April 15, 1896, on account of an ulcerated condition of her right eyelid, which was occasioning her much annoyance and was threatening the loss of the eye. She said that the ulcers had originated in a small mole, which had appeared at about the middle of the lower lid some ten years previously, that the mole had remained quiescent until she picked it, and that after this it had slowly extended, eating away the lid, until it had wrought the damage from which she now sought relief. The ulcerative process had been a painless one, but had been accompanied by severe bleeding when the parts were irritated. Her health was excellent.

Upon admission, the condition of the patient was pitiable, and, so far as the eyes were concerned, desperate. The left eye was absent, inquiry eliciting that it had been removed at the Wills' Eye Hospital on account of glaucoma: the condition of the right eye also was such that it appeared as though it too would soon be lost, for, as is well shown in Figure 1, the lids were almost entirely de-

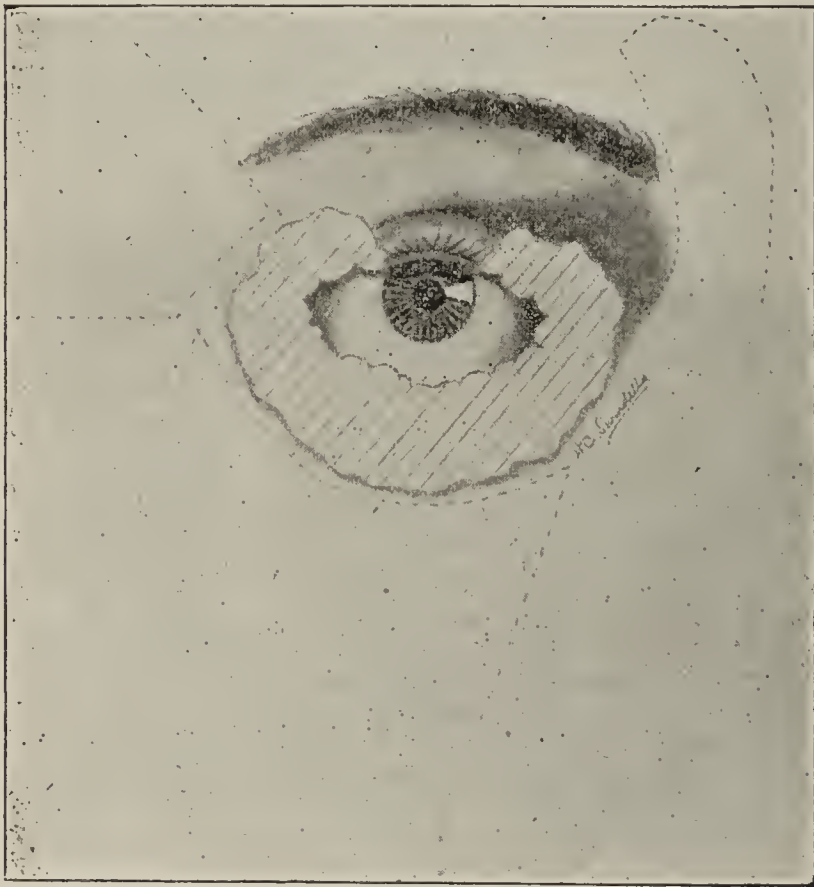


FIG. 1.

stroyed and offered but little protection to the eyeball, which already showed the effects of the irritation to which it was exposed in consequence. The upper lid was much affected, the outer third of its ciliary margin being extensively ulcerated, and the corresponding portion of the inner third also showed signs of breaking down. The cornea was still clear and permitted a glaucomatous excavation in the head of the nerve to be seen with the ophthalmoscope. As a result of the ulceration and the adhesions, the globe was fixed and its rotary power much restricted. The upper lid could be elevated but little, owing to the adhesions at both canthi, so that the patient threw her head back when she wanted to see distinctly. Vision

equalled 5/12 and with a +S. 4 D. lens, type 0.50 D. was read from 30 to 40 cm.

Extirpation of the growth was at once advised, though the patient was made aware that the loss of the eye was rendered probable, partly upon account of the damage already done to the lower half of the globe by exposure, and partly upon account of the extensive removal of orbital tissue which the radical extirpation of the ulcer would necessitate. The patient's consent was obtained, however, and she was admitted to the hospital, where the writer performed the following operation, with the advice and assistance of Dr. Charles H. Frazier, one of the general surgeons to the hospital.

An incision was made in the skin the entire length of the lower orbital rim and parallel with it, but far enough below to fall in sound tissue. The ulcerous mass was then grasped firmly with dressing forceps and freed with some difficulty from its attachments, as it was found to have involved the floor of the orbit to a considerable depth, and to have formed very close connections with the sublying tissues. Great care was exercised to avoid wounding the globe, but on account of the extensive dissection required to extirpate the mass, its circulation was greatly interfered with and the bulbar conjunctiva became greatly injected. After the growth in the floor of the orbit had been disposed of, the upper lid was divided by vertical incisions with scissors and the ulcerated tissue at both canthi removed, so that only the central portion of the lid remained. The growth had spread deep into the orbit at the inner canthus, and it was with great difficulty that it was removed from that position on account of profuse hemorrhage. The excision of the ulcerated areas being accomplished, it now became a question as to how the large areas both in the region of the lower and upper lids, which had been denuded by the operation, should be filled in. It was obvious that any attempt to restore the cul-de-sacs would be futile, and that the only procedure which was possible, was to cover in the orbit as well as possible by flaps taken from the surrounding parts of the face. As the skin there was well adapted for transplantation, being full and redundant, the writer hoped to have speedy union follow this transplantation and thought that granulations would soon fill up the orbit from below. A large quadrilateral flap was accordingly obtained from the cheek immediately below the incision which had been made parallel with the lower orbital rim, the vertical lines of the incision being carried below the angle of the mouth. To fill in the gap at the outer canthus, another quadrilateral flap was dissected

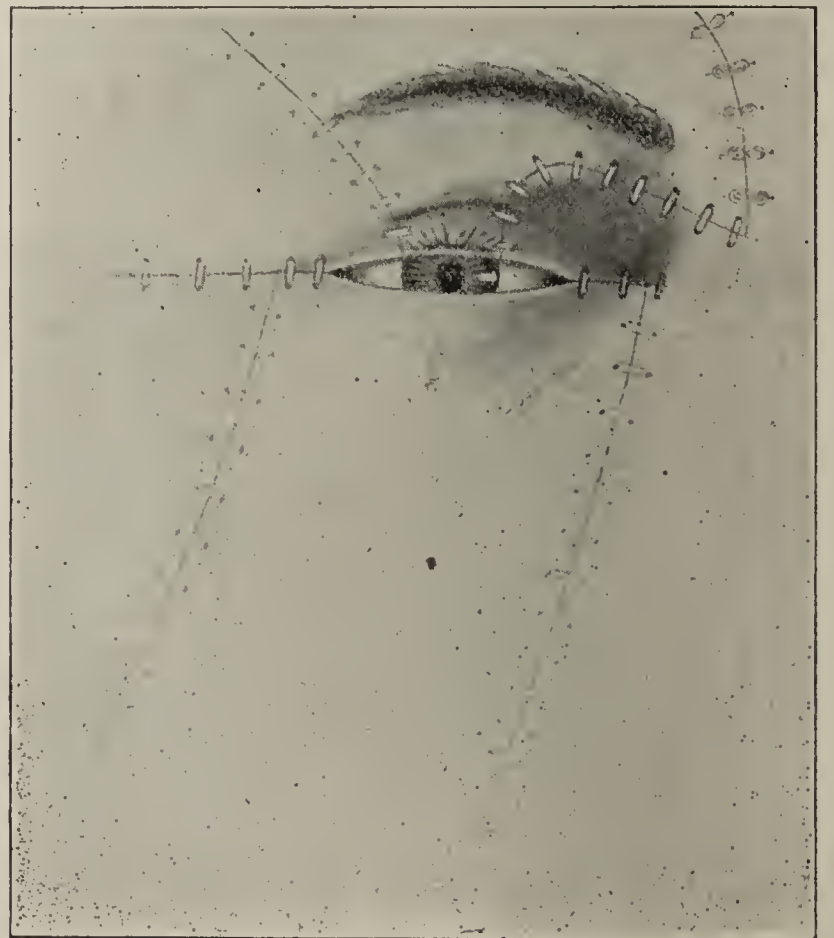


FIG. 2.

from the temple, while the inner canthus was covered by a flap taken from above the root of the nose. The lower and the temporal flaps were carefully undermined from the sublying tissues and slid forward into the new position they were to occupy. The flap for the inner canthus, however, was cut free from the surrounding skin and twisted down into position. The three flaps were then stitched together, and to the small portion of the upper lid which still remained, in such a manner that the eye and the orbit were perfectly covered and without tension. (Figure 2.) Better to approximate the wound, and to make firm pressure on the field of operation, and thereby prevent any tendency to bogginess under the large lower flap, two broad bands of rubber adhesive plaster were passed from the angle of the chin diagonally across the face, and fixed over the left eye, and a firm compress bandage was applied over this. The wound was dressed on the third day, and as there were no signs of tension or suppuration, a lighter dressing was applied. Two days later the adhesive strips were removed, and the union of the flaps found to be almost perfect, except at the inner angle of the orbit, where there was some slight superficial suppuration at the points of insertion of several of the stitches. The temperature was normal after the operation, there was no pain and the patient was in the best of spirits. Three days later the stitches were removed and the globe carefully inspected. The cornea was clear, the globe was quite white, and the patient said she could see as well as before the operation.

The dressings were changed daily by the resident physician, and the wound reported to be doing well. After a lapse of three days, however, signs of panophthalmitis succeeded: the cornea became hazy and necrotic in its entire lower half; bulbar chemosis was intense, and the iris was thickened and discolored. There were no signs of suppuration in the orbit, however, and the temperature was normal. Compresses of hot boracic acid were applied constantly night and day, and the patient given full doses of strychnine and quinine; a weak solution of eserine was also ordered. Under this plan of treatment, the eye gradually became less inflamed, and, at the end of three weeks, was almost quiet. The line of union of the flaps was perfect everywhere, the orbit had filled with granulations, and there was no evidence of any return of the growth. The lower flap had become tightly adherent to the globe below, while the upper lid completely covered the cornea on account of the external and internal adhesions which had been formed. The patient returned to the hospital at intervals of several months after the operation, and at the last visit it was recorded that the palpebral fissure was reduced to a slit about 7 mm. long and 3 mm. broad, and that it was only possible to obtain a view of the lower 2 mm. of the cornea, the rest being hidden by the upper lid. A plastic operation was advised, to free the adhesions and liberate, in a measure, the upper lid. She would not consent to this, and was lost sight of for two years, not returning to the clinic until last Summer, when she reported at the hospital for the relief of intense pain in the eye and temple which she said had been very troublesome for several months previously. Examination now showed considerable swelling of the upper lid and ulceration of the skin which was adherent to the globe below, which appeared to be of an epitheliomatous character. The globe itself was fixed and was in a state of absolute glaucoma, the tension equaling +3.

Admission into the hospital was advised, for the enucleation of the eye and the exenteration of the orbit, if this latter procedure should prove necessary. The patient's consent being obtained, ether was administered and the globe enucleated, and as the floor of the orbit seemed to be completely filled up with the epitheliomatous mass, and the upper lid was also involved externally by it, the contents were completely removed. Recovery was rapid, the orbit filling in rapidly with healthy granulations, and 6 months after the operation, the last time the writer had an opportunity of seeing the patient, there had been no recurrence of the epithelioma.

PATHOLOGICAL REPORT BY DR. SHUMWAY.

The eyeball and lids were placed in Müller's solution for 4 weeks, and then carefully hardened in ascending strengths of alcohol, and divided into two halves in a vertical plane, passing through the optic nerve and the cornea. One half was mounted in glycerine jelly: the other half was embedded in celloidin and cut in sections parallel to the original plane. Macroscopically (Figure 3), the eyelids are seen

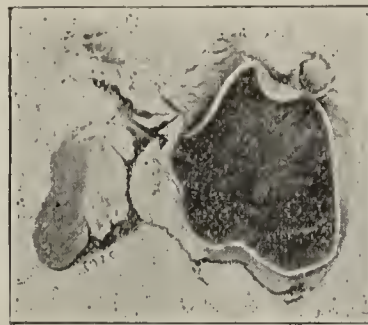


FIG. 3.—Macroscopic appearance of the eyeball and lids. Vitreous full of blood. Eyelids thickened by the infiltrating carcinoma cells.

to be very much thickened; the cornea is likewise thickened, and the eyeball is filled with a mass of clotted blood, which hides all the finer details of structure.

Microscopical examination. The eyelids are thickened to about twice their normal dimensions by the presence of a typical carcinoma of the skin. The masses of infiltrating cells are derived from the lower stratum of cells of the epithelium covering the skin surface of the lid. These cells are proliferating rapidly and are spreading through the lymph spaces of the subcutaneous tissue. There are no whorls of cells nor any horny change in the cells, such as are commonly found in carcinoma arising by proliferation of the superficial cells. The lid margins are ulcerated to a considerable depth, and the bloodvessels in the loose areolar tissue of the eyelid are widely distended with blood, and are surrounded by dense collections of round cells. The bloodvessel walls are moderately thickened. The carcinomatous process extends to the conjunctival surface of the eyelids and secondarily involves the eyeball. The cornea is infiltrated throughout with the epithelial cells, and is covered with a thick fungous mass, composed of the same deeply staining cells (Figure 4).



FIG. 4.—Section of growth on cornea.

The infiltration extends most deeply into the parenchyma in the lower portion, and, passing backward, both above and below, involves the scleral tissues as far as the insertion of the rectus muscles. The parts of the cornea which are free from the carcinoma cells, show many mononuclear round cells between the lamellæ and numerous newly formed bloodvessels. Descemet's membrane is intact, but its endothelial lining is largely absent. The anterior cham-

ber is shallow and is filled with blood and a finely granular exudate: the angles are obliterated by the attachment of the iris and cornea at the periphery. The bloodvessels of the iris are widely distended with blood, their walls are thickened and the iris stroma is atrophic. The vessels of the ciliary processes are likewise distended, and the entire ciliary bodies are detached and infiltrated with free red bloodcorpuscles; the muscle is atrophic. The choroid is detached from the sclera, its vessels are enormously distended, and the choroidal layers are separated by blood-masses, which are continuous with the blood that fills out the central cavity of the eyeball. The greater portion of the hemorrhagic extravasation is of long standing, the red cells do not stain brightly with the eosin, and there is much bloodpigment scattered through the mass. A short distance posterior to the ciliary region, below, the sclera is thinned, and at a point shows a rupture of its fibers which are forced outward by the bloodcells. The optic nerve presents a deep excavation of the papilla, the lamina cribrosa being forced well back of the normal position. The excavation is partly filled with a finely fibrillar tissue. The retina extends forward as a thin connective tissue membrane, from which all nervous elements have disappeared, for a short distance from the nerve entrance, and is then lost in the blood. The optic nerve is reduced one-half in diameter, and a broad space separates the fibers from the dural sheath. The connective tissue septa are greatly thickened, and the nerve fibers are entirely atrophic.

Diagnosis. Carcinoma of the eyelids, with secondary involvement of the eyeball. Absolute glaucoma, rupture of the sclera; extensive intra-ocular hemorrhage. Atrophy of the retina and optic nerve.

CLIMATOLOGY OF CALIFORNIA.*

By ALEXANDER G. McADIE, M. D.,

of San Francisco, California.

Professor of Meteorology, U. S. Weather Bureau.

The traveler in Mediterranean waters passing Cerigo wonders if that can really be the far-famed Cythera where Venus rose resplendent from the sea. A sun-baked, wind-worn rock meets his view and the obvious conclusion is that either great natural changes have taken place since the poets sang, or else these ancient writers held not closely to the truth. How frequently is the traveler disappointed because imaginative writers have all too glowingly described some locality. And possibly this holds somewhat in descriptions of California. On the other hand, a bald statement of fact and a table of physical data very inadequately tell the story of a place. Particularly is this likely to be the case where meteorological data are given. The writer has in mind the islands lying in the Pacific about twenty-five miles due west of San Francisco. If tables of mean temperature, daily range or annual range of temperature, extreme temperatures, etc., be considered only, the Farallones will compare favorable with any portion of California. Yet few of us are willing to dwell upon the islands. If then we are to keep meteorological records, by all means let these be as complete and detailed as possible. Dr. Hann has given the following list of climatic factors which should be given in the discussion of the climatology of a locality. And it need only be said that, full as this list seems to be, it but partly tells the story of the climatology of any place. The different factors are:

1. The monthly and annual mean temperature.
2. The mean diurnal range for each month.
3. The mean temperature at two given hours.

4. The extreme limits of the temperature of the months.

5. The monthly and annual extreme temperatures.

6. The absolute highest and lowest temperature.

7. The mean variability.

8. Frost data.

9. Insolation or solar radiation.

10. Terrestrial radiation.

11. Soil temperatures.

12. Absolute humidity.

13. Relative humidity.

14. Total precipitation, rain, snow, fog.

15. Maximum precipitation per day and hour.

16. Number of rainy days.

17. Percentage and probability of rainy days.

18. Snow, depth, duration, number of days covering ground.

19. Dates of first and last snow.

20. Hail storm frequency.

21. Thunderstorm data.

22. Cloudiness.

23. Fogginess.

24. Nights with dew.

25. Air movement or wind velocity.

26. Frequency of wind direction.

27. Pressure data.

28. Evaporation data.

29. Impurities, number of dust particles, bacteria, etc.

30. Electrical potentials.

To this long list Professor Abbe adds (Maryland Weather Service, page 266).

31. Sensations experienced; e. g., mild, balmy, invigorating, depressing, expressing the integrated effect of the various factors upon the human body.

32. The number of storm centers passing over the locality; i. e., briefly, its storm frequency.

33. Frequency of severe local storms.

34. Duration of twilight.

35. Blueness or haziness of the sky.

36. Frequency and degrees of sudden changes from warm to cold, or moist to dry.

This makes a formidable list; and in California some of these factors are of but little importance. Others, such as the distinctive features of fog, air, drainage, character of soil and topographical carriers to air movement, are of the utmost importance.

From the health-seeker's standpoint honest unvarnished descriptions of the northers of the great valleys, the Santa Anas of the south, the trying west winds of the Bay section are essential.

In discussing the climatology of California, two broad propositions appear: I. Air Motion. II. Air Purity. To these add all that can be determined concerning the amount and behavior of the water vapor; for when all is said and done, it is this factor, this most protean of the elements, which determines our comfort. It exists independently of the air, and we know it as rain, snow, hail, frost, dew, fog or cloud, from the lowest stratus to the highest cirrus. If we live below it, as we too frequently do, it will determine the range of temperature, the frequency of change—or the equability; the amount of sunshine, for it is the veil between

*Read before the American Climatological Association, Los Angeles, Cal., June, 1902, by Dr. W. F. R. Phillips, by permission of the U. S. Weather Bureau.

us and the sun; the cloudiness, the rainfall and even the relative purity of the atmosphere. Our atmosphere is composed of oxygen, nitrogen, carbon-dioxide, argon, krypton, helium, neon, senon and vapor of water. But first and foremost in determining climate is water vapor.

California faces the ocean. Small wonder then that along the coast and wherever there is an open thoroughfare for the winds from the sea, the temperatures are nearly constant. The coast line of nearly a thousand miles shows a difference of but 5°C or 10°F. in the mean annual temperatures of its northern and southern limits. At Eureka the temperature is 11°C. (51°F.); at San Francisco 13°C. (56°F.) and at San Diego 16°C. (61°F.) If we compare these figures with those of three points on the Atlantic seaboard practically corresponding in latitude, we find that New York has a mean temperature of 11°C. (52°F.); Washington, 13°C. (55°F.); and Savannah 19°C. (67°F.) In tabular form the difference between the two seaboards may be shown as follows:

Pacific Coast	{	11° — 16° C. — 5° C.	or 1° F. variation for every 80 miles.
		51° — 61° F. — 10° F.	
Atlantic Coast	{	11° — 19° C. — 2° C.	or 1° F. variation for every 53 miles.
		52° — 67° F. — 15° F.	

But as we intimated above, mean temperatures do not tell the whole story. To test the relative equability of temperature compare these figures:

	Eureka.		San Francisco.		San Diego.	
January	8° C.	47° F.	10° C.	50° F.	12° C.	54° F.
July	13° C.	56° F.	15° C.	59° F.	19° C.	67° F.
Range	5° C.	9° F.	5° C.	9° F.	7° C.	13° F.

	New York.		Washington.		Savannah.	
January	-1° C.	31° F.	1° C.	34° F.	11° C.	52° F.
July	23° C.	74° F.	25° C.	77° F.	28° C.	82° F.
Range	24° C.	43° F.	24° C.	43° F.	17° C.	30° F.

Here there is a marked difference and if the physician desires for the patient a climate not subject to large temperature variations, eliminating, as it were, the extremes of summer and winter, the Pacific seaboard offers decided advantages.

In January as you go south on the Atlantic side it gets 1° warmer for every 40 miles. On the Pacific side as you go south in January it gets 1° warmer for each 115 miles. Decided changes in temperature however can be obtained by traveling either east or west a few miles; and also owing to the peculiar topography of the State and the marked changes in elevation, can be accomplished at many points within an hour or two. Before we leave the matter of monthly mean temperatures, a reference should be made to the isotherms of January, as compared with those of July. These are shown on the accompanying map. The same general north and south trend of the isotherms may be noticed in both maps; but the July map makes it plain that high temperatures are experienced generally throughout the State in summer months, except along the coast. In brief, these maps show that the so-called winter months in California are the really pleasant months of the year. Note that the isotherm of 40°



in January extends well over the central and northern portions of the State, while in July the isotherm of 80° traverses the northern as well as the southern portion of the State. During the summer months one has only to move inland from the coast a distance of less than a hundred miles to experience mean temperatures 30° or 40° higher than the coast temperatures.

Even more remarkable than the temperature distribution is the rainfall of California. In no other portions of the United States are the rainfall periods so differentiated. There are two well-marked seasons, the dry and the wet. The former covering the months of May, June, July, August and September; the latter the rest of the year. The mean annual rainfalls vary from one inch to seventy-five inches. There are places in the southeastern portion of the State where the total rainfall for a period of twenty-five years will hardly amount to



two inches. And not infrequently a year may pass at these points without an account of rain exceeding 0.01 of an inch. In the northern portion of the State rainfall is very heavy. In some of the northern coast counties and also in the mountains to the east and southeast of Shasta, rainfalls averaging over eighty inches in a year have been recorded. In years of very heavy rainfalls at some of these points more than one hundred inches have fallen. The following are some single year rainfalls; La Porte, 120 inches, 1896; 101 inches, 1898; Delta, 111 inches, 1889. Upper Mattole, 102 inches, 1896. In the central and northern portions of the State and in the mountains of the south snow is but infrequent. At Summit an annual snowfall of 697 inches has been recorded.

Little rainfall, then, is expected during the summer months.

But if during the wet season the rainfall is deficient, the various interests of the State suffer materially. And this question of whether the rainfall during a given season will be deficient is probably the most important one with which the climatologist has to deal. An interesting illustration of this variation in the seasonal rainfall is given by the isohyets for January and February, 1902. The month of December, 1901, had been exceptionally dry. The month of January continuing dry, the outlook was disheartening, and while the invalid enjoyed life out-of-doors, the business man and the farmer were worrying themselves sick. The excessive rainfall for February, 1902, saved the entire community from great losses, and restored, as if by magic, confidence and courage.

Another point that is plainly brought out by these rainfall maps is the variability both of the rain intensity and the rain frequency. During the month of January, ordinarily the month of greatest rain frequency in California, there were but thirteen rainy days, while the next month rain fell on practically every day of the month. The number of rainy days is probably the factor most frequently asked for by physicians in determining the climatic character of a place, a rainy day being defined as one on which 0.01 of an inch of rain, or more, falls. And yet there are few conditions more misleading in helping up to form a true estimate of the climatology of a place than the so-called number of rainy days. There should always be furnished in addition to the number of rainy days some statement as to the general character of the precipitation itself; for example, whether the rain falls in showers with intermittent sunshine, or whether the rains are continuous and the sky is overcast.

The wind system of California is like the rainfall and the temperature, characteristically different from the wind systems of other portions of the United States. Here again the topography plays an important part in modifying the circulation of the lower strata of the atmosphere. In the coast and bay section there is a well-marked draught through the Golden Gate and into the great valley. Particularly noticeable is this motion on summer afternoons and many of the fog phenomena so remarkable on this coast may be explained in connection

with these strong westerly winds. There is also a well-marked movement of the air from the north thermodynamically warmed in the summer months by its passage over the mountains and giving rise to the very disagreeable "northers" of the great valleys; and the "Santa Anas" of the south.

With regard to sunshine, except along the immediate coast, few portions of the United States can equal California. Over more than half of the State the normal annual sunshine exceeds seventy-five per cent. of the possible sunshine. Along the coast this is reduced to fifty per cent.

Both in the matter of air motion and in the matter of air purity California enjoys great advantages.

To sum up then the general climatic factors of this land of sunshine and of fog; of heavy rainfall and of scant rainfall; this land of contrast—California; we note first that, because of its proximity to the ocean, a great natural conservator of heat, the temperatures are as a rule moderate and equable.

Second, that because of the exceedingly diversified topography the climatic conditions are likewise very diversified; third, that the prevailing easterly drift of the air brings a constant supply of fresh air neither too hot nor too cold to most of the State; and fourth, that owing to the general path of storm movements lying farther to the north, California escapes many of the disturbances so familiar elsewhere. All these combine to give a climate different from other sections of our great country. The effect of the climatic environment is well shown in the flora of the State. What influence the climate will exert on man, and what the ultimate record will be—is for other pens than ours.

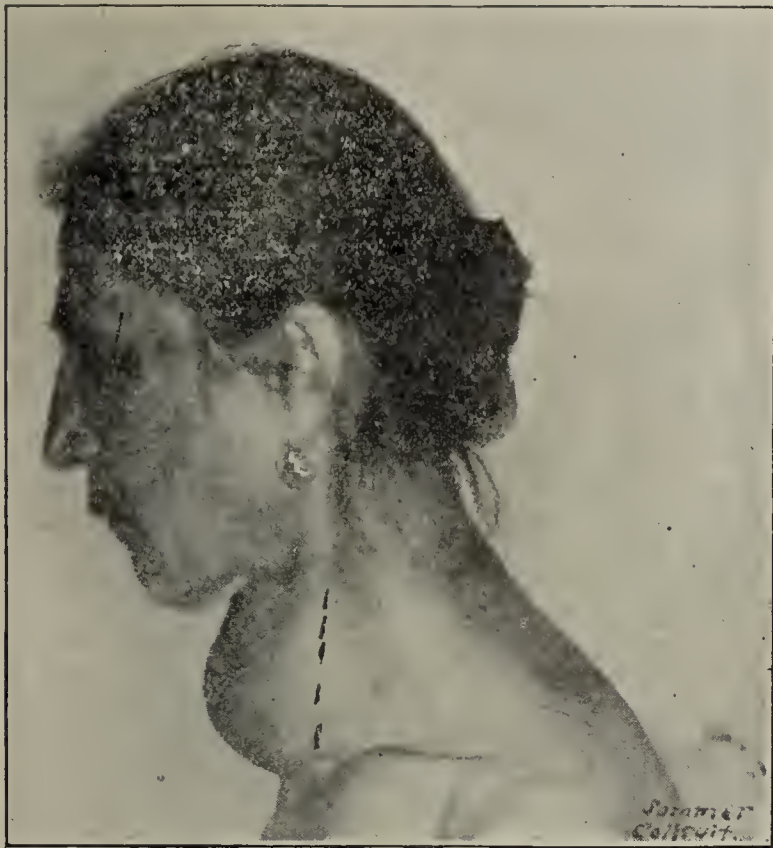
STRUMECTOMY IN A CASE COMPLICATED WITH TUBERCULOSIS PULMONALIS.

By H. O. SOMMER, M. D.,
of Washington, D. C.

The case of goiter from which the accompanying cuts are taken is, though struma is rare in this country* compared with the goitrous districts of the Canton Berne, Baden, etc., not so much of interest for the tumor itself as for the complicating constitutional malady. The patient came under my treatment through the courtesy of Dr. Mills, after a confinement of several months in the phthisis wards. Physical signs of tuberculosis pulmonalis were comparatively not marked, though bacilli were found in sufficient number in the sputum (and verified among a lot of other cases, being compared for "check" results by a colleague at Bellevue), which also had the "sago" characteristic of the early stages.

Owing to the extreme psychic depression of the patient, who attributed much of her trouble, i. e., great dyspnea, weakness and some emaciation, to the tumor, which she was not too ignorant to appreciate—though among many goiter patients seen in Freiburg I have seen much larger goiters worn

*The patient was a Sicilian. All goitrous patients admitted at Metropolitan during my time were foreigners; perhaps mere chance?



with better grace by patients otherwise robust—and in view of a probable tracheal compression, I decided to send the patient to the surgical division, even without a laryngoscopic verification, as the extreme dyspnea (had there been no phthisis) and the location of the tumor deep behind the sternocleidomastoids, as shown by the dotted lines in cut 1, warranted at least a likely tracheal stenosis from compression, which I regarded as an unnecessary complication to an already badly aerated lung. And whilst the tubercle bacilli are no doubt anaerobic, free pulmonary ventilation is still considered advisable in phthisis pulmoralis.

The operation by Drs. Fralich and Kaiser showed that my suspicions were verified, compression of the trachea being aggravated by numerous side



cysts,* deeper in posteriorly, as well as some sub-sternal extension of the main cyst, and in spite of the fact that an irritant general anesthetic was used instead of Schleich's local, and that considerable hemorrhage was incurred during the operation, no bad pulmonary effects were incurred and the patient left the hospital about fifteen days later with cosmetic result seen in Fig. 2, cheerful and I believe in a better state under nourishment, etc. to combat her tuberculosis pulmonalis, after removal of a possible respiratory complication by pressure on the trachea, N. sympathicus, N. vagus and N. recurrentes (vocal cord paralysis) (Wolfler, Krause, Tillmann, et al.) than when a wardmate in a hospital full of expectorating consumptives, even if her station in life rendered a cure improbable.

NEUROLOGISCHES CENTRALBLATT.

November 16, 1901.

1. A Teratoma of the Hypophysis in a Rabbit.
A. MARGULIES.
2. The Origin of the Depressor Nerve. Preliminary Communication. G. KOESTER.

1.—Marguliés describes an interesting tumor found in the position of the hypophysis cerebri of a rabbit. It was about the size of a pea and filled with clear fluid. It entirely replaced the hypophysis and consisted of a very irregular cyst lined with columnar epithelium. The histological structure showed a strong resemblance to that of the trachea. There were smooth muscle fibers in the wall and occasionally small glands with pale epithelium and a central lumen. Further back the structure resembled that of the pylorus of the stomach, and, in other situations, the structure of the esophagus. The most interesting part is the theory which Marguliés suggests in order to explain the origin of this growth. It might either be due to the parasitism of the second fetus which had become adherent through the mouth cleft to the base of the brain of the host, and then had developed in the position of the hypophysis; or it might be due to some disturbance of the growth of the hypophysis itself, which, as is well known, arises from the buccal layer of the ectoderm. However, as von Kupffer has shown that ectoderm also exists in some of the structures at the base of the brain, it is possible that this had undergone a peculiar proliferation. Marguliés rather inclines to the belief that this is the true explanation, and calls attention to the interesting effect upon our theories regarding the origin of the hypophysis and the mechanism of development. [J. S.]

2.—Starting with the fact ascertained in 1806 by Cyon and Ludwig, Köster has carried out a series of investigations in order to determine the origin of the depressor nerve, that is, a small branch of the pneumogastric which passes to the base of the heart and which, when stimulated, causes dilatation of the entire vascular system. He shows first that it is dependent for its influence upon the jugular ganglion that resembles in all respects a spinal ganglion. Section of the depressor nerve caused degeneration in a group of muscles in the upper part of this ganglion, and it seemed reasonable to conclude that the jugular ganglion was a sensory central organ that was dislocated peripherally. Examination of the aorta after section of the depressor nerve, the staining being done according to the Marchi method, showed that a group of degenerated fibers passes along the aorta forming a fine network. Suspecting that the depressor was really a sensory nerve of the aorta, Köster undertook to stimulate the latter organ by vigorous injections of normal salt solution, at the same time measuring the amount of electromotive force in the nerve with a galvanometer. He found that when the stimulation was sufficiently pronounced, the galvanometer showed very marked swaying. He concludes, therefore, that the de-

**The cysts were colloids.

pressor nerve arises from the upper portion of the jugular ganglion, and terminates in the aorta of which it is the sensory nerve. [J. S.]

December, 16, 1901.

1. The Pathogenesis of the Arthropathies of Syringomyelia. C. HUDERVERNIG.

1.—Hudervernig reports the case of a man of 20, suffering from typical syringomyelia, who, on one occasion, during vigorous effort, felt a grating in the left elbow joint, and the next day this joint was swollen and there was distinct crepitation. On another occasion he fell to the ground and injured his left wrist. Both joints showed the typical changes of syringomyelic arthropathies. The X-ray examination showed thickening of the bone and some dislocation. The case is interesting because it appears to confirm Charcot's idea that the arthropathy originated in the diseased bone as a result of trauma, particularly excessive muscular action. The bone changes appeared to be those of osteomalacia. [J. S.]

January 1, 1902.

- Contribution to the Knowledge of the Initial Appearance of Paranoia. A. PICK.
- Dietetic Treatment of Epilepsy. SCHAEFER.
- Experiment upon Voltasation and Celebration of the Centennial Jubilee of Volta's Discovery. ZANJETOWSKI.

1.—Pick believes that the so-called illformed state of suspicion that is often seen, according to Head, in association with mental changes that accompany visceral disease, is not infrequently also a symptom of true insanity. It is well known that, in the early stages of paranoia, patients are sometimes completely governed by their delusions, sometimes are convinced that they are wrong, and in the latter state the phenomena described by Head frequently occur. [J. S.]

2.—Schaefer reports the results of the treatment of 3 cases of epilepsy by a diet free from chlorine. He found that their physical condition improved, and that the number of fits diminished considerably. When the ordinary diet was recommended, the fits reappeared with increased severity. [J. S.]

3.—Zanietowski has made a number of experiments in order to determine whether the voltmeter is better or not so good as the galvanometer for the measurement of muscular reactions. He found that a constant stream suffered considerable variation as the result of the variation in the resistance of the body, particularly in tetany. He found, however, that the mere intensity of the current is no absolute measure of the degree of irritation. As a voltmeter is not easily obtained, the difficulty of using it for measurement is considerable. However, a certain definite degree of resistance may from time to time be introduced into the electric current, and this may be of use in the examination of the muscles. [J. S.]

Some Cases of Acondroplasia.—At a recent meeting of the Société Médicale des Hôpitaux de Paris, 2 cases of acondroplasia were reported. Méry and Labbé gave in detail the history of a boy of 12, only 3 feet high, with very short, bowed arms and legs, while his body was that of a normal child. Muscular development was excellent, somewhat resembling pseudohypertrophy. His head was very large, suggesting rachitis. Besides, a rarity in such a case, there was marked double scoliosis. He had gained 5 cm. in height in 4 months, upon thyroid extract. Comby reported the case of a boy of 5, whose condition had been diagnosed rickets by a number of physicians. In the discussion which followed, Joffroy said that, in order to get the full effect of thyroid extract, it should be given in doses large enough to produce toxic symptoms. Marie stated that acondroplasia was distinctly different from rachitis. He did not believe that thyroid extract was of any use in the treatment of the condition. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, June 19, 1902). [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending June 28, 1902:

			Cases.	Deaths.
SMALLPOX—United States.				
CALIFORNIA:	Los Angeles.	June 7-14.	1	
	Sacramento.	June 14-21.	3	
COLORADO:	Denver.	June 7-14.	3	
FLORIDA:	Jacksonville.	June 14-21.	2	
ILLINOIS:	Belleville.	June 14-21.	1	
	Chicago.	June 14-21.	7	
INDIANA:	Indianapolis.	June 7-21.	18	
	Terre Haute.	June 14-21.	2	
KANSAS:	Wichita.	June 14-21.	4	
KENTUCKY:	Covington.	June 14-21.	2	
LOUISIANA:	New Orleans.	June 14-21.	1 case 9 hours in city.	
MASSACHUSETTS:	Boston.	June 14-21.	6	1
	Cambridge.	June 14-21.	41	1
	Chicopee.	June 14-21.	3	
	Lowell.	June 14-21.	3	
	Malden.	June 14-21.	2	
	Worcester.	June 13-20.	1	
MICHIGAN:	Detroit.	June 14-21.	5	1
	Ludington.	June 7-14.	3	
MISSOURI:	St. Louis.	June 15-22.	25	1
NEBRASKA:	Omaha.	June 14-21.	19	
NEW HAMPSHIRE:	Nashua.	June 14-21.	11	
NEW JERSEY:	Hudson County, Jersey City included.	June 15-22.	33	3
	Newark.	June 14-21.	29	7
NEW YORK:	Elmira.	June 14-21.	1	
	New York.	June 14-21.	50	2
OHIO:	Cincinnati.	June 13-20.	12	
	Cleveland.	June 14-21.	52	5
	Hamilton.	June 14-21.	8	
	Toledo.	June 14-21.	2	
	Youngstown.	June 7-14.	1	
PENNSYLVANIA:	Johnstown.	June 14-21.	13	1
	Philadelphia.	June 14-21.	20	3
	Scranton.	June 14-21.	5	
RHODE ISLAND:	Providence.	June 14-21.	7	
SOUTH CAROLINA:	Greenville.	June 14-21.	1	
WISCONSIN:	Green Bay.	June 16-23.	2	
	Milwaukee.	June 14-21.	8	
SMALLPOX—Insular.				
PORTO RICO:	Ponce.	To May 14.	74	
SMALLPOX—Foreign.				
BELGIUM:	Antwerp.	May 31-June 7.	1	2
BRAZIL:	Pernambuco.	Apr. 15-May 15	42	
COLOMBIA:	Cartagena.	June 1-8.	1	
	Panama.	June 8-16.	10	
FRANCE:	Rheims.	June 1-8.	2	1
GREAT BRITAIN:	Birmingham.	May 31-June 7.	9	
	London.	May 3-June 7.	188	29
	South Shields.	May 24-June 7.	8	1
INDIA:	Bombay.	May 20-27.	9	
	Calcutta.	May 17-24.	2	
	Karachi.	May 18-25.	3	1
	Madras.	May 10-16.	2	
ITALY:	Milan.	Apr. 1-30.	5	
	Palermo.	May 31-June 7.	12	
MEXICO:	City of Mexico.	June 8-15.	5	2
RUSSIA:	Moscow.	May 24-31.	15	3
	Odessa.	May 24-June 7.	11	1
	St. Petersburg.	May 24-June 7.	24	5
	Warsaw.	May 17-24.	1	
TURKEY:	Smyrna.	May 18-24.	2	
YELLOW FEVER				
BRAZIL:	Pernambuco.	Apr. 15-May 15	1	
CHOLERA—Insular.				
PHILIPPINE ISLANDS:	Manila.	Apr. 28-May 10	332	267
	Provinces.	Apr. 28-May 10	1090	781
CHOLERA—Foreign.				
INDIA:	Bombay.	May 20-27.	3	
	Calcutta.	May 18-24.	55	
JAPAN:	Karatsu.	June 23, present.		
PLAGUE.				
BRAZIL:	Pernambuco.	Apr. 15-May 15	61	
EGYPT:	General.	May 28-June 4	48	2
	Alexandria.	Apr. 14-June 4	18	11
INDIA:	Bombay.	May 20-27.	174	
	Calcutta.	May 17-24.	295	
	Karachi.	May 18-25.	77	60
JAPAN:	Nagasaki.	May 11-20.	1	1

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8.

VOL. X, NO. 2

JULY 12, 1902

\$5.00 PER ANNUM

The Work of Congress.—The Fifty-seventh Congress, which closed its first session on July 1st., was noteworthy for the amount of work which it accomplished. Some of its legislation had special interest for medical men.

For instance, it established a permanent Census Bureau. This will doubtless insure more exact statistical work—a thing much to be desired in this country, where statistics have not always been compiled with sufficient scientific accuracy. Its importance from a medical standpoint is obvious.

Congress also passed a law to prevent the fraudulent sale of oleomargarine for genuine butter. This indicates both the power and the willingness of the national legislature to control the all-important subject of food-adulteration and substitution.

Two hundred thousand dollars were appropriated for the relief of the Martinique sufferers—an evidence of the willingness of the American people to extend official help to an alien but neighboring people.

Legacy taxes paid by charitable and benevolent institutions were refunded—a form of gift which doubtless interests some of the hospitals.

The sale of firearms, opium and intoxicating liquors to the natives of certain Pacific islands was prohibited—a kind of sumptuary legislation which makes for peace and health, and will doubtless be approved by many physicians.

Not the least important work of Congress was the passing of the act to change the name and promote the efficiency of the Marine-Hospital Service. We have commented favorably on this act a number of times, and need not reiterate our expressions of approval.

Some important legislation was left incomplete, having passed only one house of Congress. Thus the bill to provide further restriction of immigration goes over until the next session. This bill provides for the exclusion of the defective classes, and was discussed in a recent number of this **Journal**. It is

to be hoped that it will receive prompt attention next winter.

Altogether the work of Congress from the medical standpoint had much to commend it.

The Panama Route.—The eruption of Mont Pelée had some far-reaching effects, not the least among which apparently was to scare the United States Government away from Nicaragua. Congress, in its session just closed, passed a law authorizing the construction of a ship-canal to connect the Atlantic and Pacific Oceans, and recommended \$184,000,000 for the project.

We are not called upon here to discuss the relative merits of the Nicaragua and the Panama routes. Great engineering questions are involved, as well as the question of volcanoes, and with these we are not concerned. We cannot close our eyes, however, to the hygienic problems, and when we read that the Chagres river is to form part of the proposed Panama route, we cannot help recalling the associations of that name. "Chagres fever" has won an unenviable reputation. The men who are to dig that canal, and even the people of all nations who are to use it, will have to run some risks.

However, the question is not yet settled, although opinion seems to be crystallizing in favor of the Panama route. This route is described in an interesting paper, beginning in the July number of the *Popular Science Monthly*, by Professor William H. Burr. We trust our legislators will not ignore tropical fevers in deciding this question. Whatever can be said against volcanoes, something worse can be said against "Chagres fever." The former are possibilities; the latter is an actuality. But for that matter, Nicaragua itself is probably not exempt from malaria and yellow fever.

Major Gorgas' Last Report.—Now that the United States Government has retired from Cuba it is well to note the sanitary condition in which it leaves the city of Havana. Major Gorgas' last report has been before us for some weeks; it refers to April of this year. The death-rate for April, 1898,—just prior to the American occupation—was 71.83.

For April of the present year it was 21.77. These figures tell such an eloquent story that it is quite unnecessary to comment upon them. Not a case of yellow fever has occurred since September, 1901. For twelve years, beginning in 1889, the smallest number of deaths from that disease had been in the yellow fever year 1899-1900, when it was 122; the largest number, 1385, in the year 1896-1897. The average number for these twelve years had been 466. But for the similar period of 1901-1902 the number of deaths had been only 5.

Major Gorgas attributes this favorable result to the crusade against the mosquito, which commenced on February 4, 1901. The figures indicate that he is correct.

The number of deaths from all causes in Havana in April, 1898, was 1399. The number in April, 1902, was only 499.

The city of Havana is left in a clean, sanitary condition such as it has never known before. Its death-rate compares favorably with those of Philadelphia and New York and is lower than those of Montreal and some other American cities. This, too, in spite of the fact that the city is not yet properly sewered and that a cess-pool exists on almost every property.

We shall watch with interest now for a continuance of these favorable conditions. The Cubans will show whether they have the capacity for self-government in nothing more clearly than in the way they conduct their sanitary affairs. The politicians may not think so; but we are convinced that the civilized world will be quick to detect in them any lapse from the high standard which the United States Government has set for them. The American people, moreover, will be more than likely to hold them to a strict accountability for the way they maintain, or fail to maintain, the present sanitary condition of their chief city—a relic which they have of the work done by the American people in their behalf.

Insanity Among Soldiers in the Philippines.—If we understand him aright, Dr. H. C. Rowland, an army surgeon in the Philippines, attributes many of the excesses of which American soldiers in those islands are accused, to mental disorder. Dr. Rowland has contributed an article, of a semi-popular kind, to *McClure's Magazine* for July. He thinks that nostalgia is the basis for most of these mental disorders. Some of the cases seem to have been of an impulsive or explosive character, and sudden acts of homicidal or suicidal mania were not uncommon. We hope to have the privilege of publishing

at a not distant date a paper on the insanity of returned troops from the Philippines, which will give a thorough scientific account of the subject. In the meantime we reserve judgment. There have been doubtless more than one factor leading to these mental disorders. It is always so in the case of troops serving amid hardships in foreign lands. The subject is not available at present as a contribution to the politics of the Philippine situation, and the attempt by any one to make it serve such a purpose would be scientifically an error. Dr. Rowland probably has had no such intention.

The Treatment of the Insane in General Hospitals.—The Albany Hospital has inaugurated an admirable plan by establishing a pavilion for the treatment of mental cases. After the foundation of the Pennsylvania Hospital in 1751, "for the Relief of the Sick Poor of this Province, and for the Reception and care of Lunatics," there was no attempt made in this country for almost a century and a half, to give the insane the benefit of general hospital treatment in distinction from the treatment that means immuring them in an asylum. Even in the case of the Pennsylvania Hospital the plan was abandoned in 1841 (after a trial of ninety years) when the insane department of that great pioneer institution was opened in West Philadelphia. Later, however, we have come to the era of psychopathic hospitals. A determined movement is abroad to give the mental invalid an equal chance with all other invalids; in other words, to make the clinical study of his case, and the therapeutics of it, the predominant idea rather than the mere care of his person in an asylum for the insane. This movement has much to commend it.

Dr. J. Montgomery Mosher has given us some details of the work in Albany, New York. He claims that the plan in that hospital is different from the plans elsewhere. The pavilion at Albany would probably be called by the neurologists a "psychopathic pavilion," but it is called simply "Pavilion F" in order to avoid special designation, so that patients may be received just as in the other departments of the hospital. This makes them sick persons, and not anything else. It is entirely voluntary. There are no commitments, and the patients cannot be detained against their will. In other words, this is a sort of "open-door" treatment, without some of the objectionable features that attach to that plan.

Dr. Mosher reports excellent results in the acute psychoses, such as delirium, mania, melancholia, hysteria and neurasthenia. Many of the patients

have been "saved from the asylums." In a paper in the *Albany Medical Annals* for July, Dr. Mosher describes the plan and its results in detail. The subject is a most important one. We entertain no Utopian dream that the asylums are to be abolished, or that they are even to have formidable rivals in the "psychopathic" hospitals, but we believe that such hospitals have a legitimate field.

The Public Life of the Russian Physician.—Russia is the country of martyrs and idealists. The youth, who after 8 years of general preparation in the gymnasium enters upon the study of medicine, is generally imbued with high social ideals. Having finished his medical education in 5 years, he will, according to his disposition, circumstances and environment, become either what is sneeringly called a "careerist," or a highminded, scientific and public-spirited practitioner. In the former case, he will get married in consideration of a dowry, ranging anywhere from 5 to 20 thousand roubles, settle in some provincial town and enter into social life. In the latter case, he will take special courses abroad, become physician to some *zenstwo* or city, take a deep interest in sanitary matters, gain representation in the hospitals, direct and mould public and professional opinion and, if need be, sacrifice his life in fighting an epidemic. Such are the physicians who are at the wheels of medical progress in Russia. Of late years a movement was set on foot under the influence and control of the medical profession for the education of the masses in matters pertaining to hygiene, sanitation and infectious diseases. While still in its infancy, a great deal has already been accomplished. Popular treatises on these subjects, especially on venereal diseases and alcoholism, are published and distributed among the people. Popular lectures are delivered on physiology, elementary anatomy, natural sciences and hygienic subjects. The lectures are delivered by school teachers and physicians and are illustrated by charts, lantern slides, etc. In some public schools, the curriculum includes hygiene and sanitary science, while a number of gymnasiums have medical men in their faculties. Considering the drawbacks under which our Russian colleagues labor, the work so far accomplished attests to their unselfish devotion to the best interests of their profession and to the cause of humanity. Their example is certainly worth emulating.

A New French Journal.—The *Revue Pratique des Maladies Cutanées, Syphilitiques et Vénériennes* appeared at Paris in April of this year. We have received the first three numbers of the new journal,

and wish to make a brief comment on its excellent appearance and promise of future usefulness. The editor, Dr. Leredde, is Secretary of the Société de Dermatologie, and has held important hospital positions in Paris.

In his introductory, Leredde outlines a program for his new Journal that is comprehensive and attractive. He appeals directly to the nonspecialist, whom he seems to have prominently but not exclusively in view. The new journal will come to the assistance of the general practitioner in a specialty which has peculiar difficulties for him, but which nevertheless he is not able to ignore. Every man must keep informed about the diagnosis and treatment of the venereal diseases, and the scheme of a special journal which is to be in part devoted to his interests, is a novel and excellent one. It follows, of course, that M. Leredde's new journal will pay close attention to therapeutics.

The enterprising spirit of "yellow" journalism was amusingly shown in London recently. A sensational but too previous society journal came out with a full account of the coronation, including a fierce criticism of the musical features—none of which, of course, ever took place. Perhaps medical journals might take the hint, and not "write up" events before they actually happen.

Current Comment.

CRITICISING THE PRESIDENT.

Dr. Henry D. Didama, the venerable dean of the Syracuse Medical College, caused a sensation by criticising President Roosevelt for his drinking the health of the Harvard students. He spoke on "Alcohol as a Producer and Cause of Crime and Disease." He tabooed the use of alcohol by the medical profession, and found fault with the administration of stimulants to King Edward. He said more than a hundred thousand people die annually from alcohol. President Roosevelt, he said, was guilty of a grievous wrong in setting such an example before young men. Dr. Didama had no sooner taken his seat than Dr. Franklin J. Kauffman jumped up and said he had used alcohol since he was a nursling, and his health was just as good as the dean's. He gave himself and the German people generally as examples of good effects of small amounts of alcohol.

—*The Boston Herald.*

A BRITISH POINT OF VIEW.

The fact that the King had become seriously ill on Monday evening, that his illness was due to appendicitis, and that an operation had become imperatively necessary, became known about midday on Tuesday. His Majesty had suffered much pain during the night, and the consultation at which the operation was decided upon took place at 10 A. M., and was attended by Lord Lister, Sir Thomas Smith, Sir Francis Laking, Sir Thomas Barlow and Sir Frederick Treves. The operation was performed by Sir Frederick Treves shortly after midday. A large abscess was evacuated, and the King's progress has subsequently been as satisfactory as could be expected. By a sad coincidence, we publish in this issue of the *Journal* the Cavanish Lecture given last week before the West London

Medico-Chirurgical Society by Sir Frederick Treves, who took for his subject "Some Phases of Inflammation of the Appendix." In it he discussed the indications for operation, and observed that "immediate operation is demanded in every example in which there is reasonable suspicion that suppuration has taken place." In this opinion all surgeons will concur. The condition is grave, and, as the bulletin issued on Tuesday evening states, it will be some days before it will be possible to say that the King is out of danger. The operation was performed by a surgeon whose experience in this particular affection is probably unrivalled; and, with regard to the future, it is reassuring to read Sir Frederick Treves' opinion, expressed in his lecture, that "by the occurrence of suppuration, the patient is, in all but a very small percentage of cases, cured of his trouble."

—*The British Medical Journal.*

Correspondence.

TYPHUS FEVER IN KOREA.

By DOUGLAS FOLLWELL, of Pyeng Yang, Korea.
To the Editor of the *Philadelphia Medical Journal*:

I very much regret to say that Dr. Harris, Woman's Medical College, Philadelphia, Class of '97, died Friday, May 16th., from typhus fever contracted through attendance on a native woman, suffering from the same disease. Dr. Harris, during her 4½ years' residence in Korea, was known by both foreigners and natives as a skilful physician and surgeon, and was beloved by all.

Typhus fever is quite rife among the natives, but foreigners are fairly exempt from the disease, excepting the doctors. During the past year 3 physicians contracted the disease, besides Dr. Harris, and in all cases it ran a severe course, but it was very virulent indeed in her case. She was taken sick Saturday afternoon, May 2d., with flashes of heat and cold in her cheeks and a tired feeling. Sunday morning she felt very weary, but otherwise did not complain especially, till along in the afternoon, when her head began to ache; and she had anorexia and some rise in temperature. She took to her bed the next day with intense pain in her head, pain in back and limbs, and a sense of extreme weariness. I was in attendance, and at first diagnosed her case as the neuralgic form of grippe, but the following days her temperature ran up to 103½° and 104°, without receding, with no let-up in the head symptoms, and Friday night a few spots on her arms appeared. I then made the diagnosis of typhus fever. In another couple of days, the rash was fully out, and in quantity was like confluent smallpox. Her nervous system was profoundly affected. Monday afternoon she commenced to wander in her mind, and Tuesday passed into delirium, but she could be aroused to answer questions. Tuesday night she refused food by the mouth, and passed into a screaming delirium, and continued so for 2 days. Friday morning the wild delirium ceased and became an incoherent form and finally coma, and death from heart failure occurred 10 P. M., Friday, the 16th.

Reviews.

A Practical Manual of Insanity. For the Student and General Practitioner. By Daniel R. Brower, A. M., M. D., LL. D., Professor of Nervous and Mental Diseases in Rush Medical College, etc., and Henry M. Bannister, A. M., M. D., formerly Senior Assistant Physician, Illinois Eastern Hospital for the Insane. Octavo of 426 pages, with large number of full-page inserts. Philadelphia and London: W. B. Saunders and Company, 1902. Cloth, \$3.00.

The first impulse is to extend a hearty welcome to a fresh book on mental disorders and to give expression of our thankful appreciation of the American publisher in bringing out the contributions on these and affiliated affections that have emanated from

this enterprising house. A book on mental and nervous diseases by an American author from an American publisher is no longer a novelty. If in turning the pages of a new insanity book it is closed with a sense of disappointment that little or no advance in our actual knowledge of the abstruse subject of which it treats has been made, it will be but a repetition of a previous experience. The authors have honestly undertaken rather to present a practical manual or ready reference book which they hope will prove helpful to the student and practitioner. The volume before us contains twenty-four chapters. The authors have presented the definitions of insanity of other writers as well as their own. They have presented several classifications of forms of insanity adopted by authors, as well as one approved by themselves. In doing this they have exercised the privilege which in the present state of our science belongs to every writer. An examination must be regarded as additional evidence and a concession as to the existing uncertainty and unsettled state of professional opinion when so many incongruous opinions are presented, tabulated side by side. The discovery of new terms is sometimes helpful, if they prove to be generally acceptable, but in our scientific books they often signify the meaningless limitations of knowledge—possessing but a savor of scientific value, and do not imply any actual addition whatever to the whole stock. Seven classifications by as many different authorities are presented to the reader. This statement alone would be a sufficient warrant for a plea for a simpler and more generally acceptable nomenclature, and any author might modestly waive his undoubted right to present a new scheme.

The authors have done well to devote a chapter to "Acquired Insanities," including insanity arising from exhaustion, auto-intoxication, toxins, etc. Although there is the precedent of high authority to treat of "Confusional Insanity" as "Primary" and "Secondary," we cannot but confess that the use of these terms without clearly defined limitations might prove confusing to the student and the medical practitioner. A "Confusional" *mental state* might be readily comprehended, but the authors would seem to leave an impression upon the reader that the symptoms that belong to delirium from whatever cause, or in complication with various forms of insanity as it actually occurs, as well as the "confusional" states alluded to, constitute distinct diseases.

The introduction of a chapter on "The Toxic Insanities," is fully warranted by the clinical experience of recent years. We cannot agree with the authors in a general application of the term "Degenerative Insanities" as it is used by them, although it has the authority of Kraepelin. Under this heading is included Mania, Recurrent Degenerative Mania, Hypomania, Circular Mania and Paranoia. The insanities classed under these terms, it is true, have often a history of congenital and inherited degeneration, but there may be a dissent from a statement so broad, for the reason that they are too frequently acquired, being evolved as a sequence of neurasthenic conditions, progressing, if recovery does not take place, to further mental degeneration. A perusal of this book may leave upon the mind of the reader the impression that all of the mental disorders described by special names are separate forms of disease. This view may be, and doubtless is, accepted by many. On the other hand, there is a drift of opinion that there is not sufficient warrant for a general acceptance of these views, and that mental degeneration by progressive stages does not warrant a separate designation of these changes as distinct forms of disease. The confusion of our classification arises in part from an attempt to create a nomenclature based upon either the cause, or the pathology, or the psychical manifestations of insanity or all combined. Of the actual causes and of the morbid pathology we know as yet too little. What may be perceived by our senses of the manifestations of different and prominent psychical states, we are a little more sure about and can take cognizance of.

Of the treatment of the acute conditions in which life is often seriously threatened, the recommendations on the whole are good. The importance of attention to the state of the bowels, of restoring the functions of the liver, kidneys and skin to a normal condition, and the liberal administration of food is not overstated, and might be indeed greatly emphasized. We cannot agree with the au-

thors in the value they attach to hypnotic drugs. It can be stated that it is a common and too frequent occurrence to observe in hospital experience, on the admission of a patient, that he is suffering not only from a mental disorder, but that an added complication exists, being superinduced by the abuse of hypnotic drugs administered over prolonged periods until a decided effect is produced. A wise precautionary suggestion is of quite as much importance in this direction as a practice which too frequently leads to abuse.

On the whole, the book should be well received as a sincere effort of the authors to present to students and physicians a practical manual for ready reference concerning a class of diseases which are in themselves complex, and about which there is much said and written that is wholly speculative. [J. B. C.]

Diseases of Women. A Manual of Gynecology Designed Especially for Students and General Practitioners. By F. H. Davenport, A. B., M. D., Assistant Professor in Gynecology, Harvard Medical School. Fourth Edition. Revised and Enlarged. With 154 illustrations. Lea Brothers & Co., 1902.

This is a useful book. It is small and therefore is confined very properly to principles and to fundamental facts. It is designed to make these clear to the man who is not a specialist, and to make the essentials of gynecology so easily understood that there need be no reason for the obscurity which surrounds it in the minds of many practitioners. The author has known very well what to leave out, and that which he has put in is most clearly expressed in that simple language which it is the highest art to employ. It is not every case to which local treatment of non-surgical character is adapted, but if used it surely should be intelligently and carefully used. The reviewer knows of no work in which such treatment is as well described. Even the simplest measures, such as giving a douche, can not be ordered in a practical manner by many practitioners and details cannot be given which the patient can carry out. Few men can skilfully use the vaginal pack.

Emphasis is placed on the importance of the bimanual examination, as distinguished from a mere vaginal examination. This is well named the keystone of gynecology. It takes diligent practice to master it, but as far as directions can be useful, those given are admirable. It is probable that imperfect examination is responsible for most mistakes and the average man probably needs thorough drill in this matter, more than in any other. Surely the knowing what or what not to do is more difficult than the doing it. This little book should make this knowledge easier to get. [G. E. S.]

The Roller Bandage. By William Barton Hopkins, M. D., Surgeon to the Pennsylvania Hospital and to the Orthopedic Hospital and Infirmary for Nervous Diseases. Fifth edition, revised. J. B. Lippincott Co., 1902.

The destruction by fire of all the plates and electrotypes of the former editions of this useful little book has necessitated the preparation of new illustrations and a complete remodelling of the book. An effort is made to teach the application of the roller bandage by numerous illustrations rather than by elaborate descriptions. The work is beautifully gotten up, is simple and lucid, and well serves the purpose for which it is intended. [F. T. S.]

Symmetrical Gangrene of the Extremities With Typhoid Fever.—Dr. Joseph Belin has recently reported the case of a girl of 22, in whom, during an attack of typhoid fever, gangrene appeared in both legs and both arms, absolutely symmetrical, causing death on the 25th. day of the disease. An autopsy was not permitted. Such cases are very rare, especially with typhoid fever; although several observations of symmetrical gangrene affecting patients with infectious diseases have already been published. He concludes that Raynaud's disease should no longer be considered by itself, as it is now known to be but a symptom of several pathological, infectious and toxic conditions. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, June 19, 1902). [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Municipal Hospital, Philadelphia.—A bill for the purchase of 150 acres on Petty's Island for \$480,000, provided that the city solicitor shall be satisfied that the property can be used for the purposes for which it is to be purchased, passed both branches of city councils July 3. It is expected in time to remove the Philadelphia Almshouse and Hospital for the Insane to Petty's Island, should no difficulty arise. The committee on sites for the Municipal Hospital also recommended the purchase of the Cannon Ball Farm, containing 144 acres, at \$500 an acre, as the site for the Municipal Hospital. This property is in the Fortieth Ward. Concerted action has been taken by a number of the towns along the Delaware River in New Jersey, in opposition to the establishment of the Almshouse and Hospital for the Insane on Petty's Island. Chester and the few property owners near the Cannon Ball Farm have protested against that as the site for the Municipal Hospital.

Chester Municipal Hospital.—Plans for a municipal hospital in Chester, prepared by several private citizens, who will defray the expenses of erecting a hospital, have been approved by the Secretary of the State Board of Health. Smallpox is still prevalent in Chester, over 40 cases, with 4 deaths, having been reported last week. Smallpox exists throughout the entire country in spite of the warm weather, yet the number of cases has greatly decreased in the large cities. Philadelphia had but 7 cases with 2 deaths reported last week. Dr. Benjamin Lee, of the State Board of Health, says that 2 weeks of hot weather will probably kill the germs or smallpox.

NEW YORK AND NEW JERSEY.

New Jersey State Medical Examining Board. Forty out of 48 candidates passed the recent examinations. The New Jersey State Board maintains reciprocal relations with other States whose examining and licensing requirements are at least equal to those of New Jersey. The number of States entering into such reciprocity with New Jersey is constantly increasing.

National Association of the United States Pension Examining Surgeons. This association was organized at Saratoga, N. Y., June 9. The following officers were elected for the ensuing year: Dr. W. A. Howe, Phelps, N. Y., president; Drs. W. H. Hall, Saratoga, N. Y., C. L. Stevens, Athens, Pa., C. J. Fox, Willimantic, Conn., and G. Law, Greeley, Col., vice-presidents; Dr. W. Rider, Rochester, N. Y., secretary; and Dr. C. H. Glidden, Little Falls, N. Y., treasurer.

Quarantine for Passengers from Cuba. Forty-six passengers on the steamer *Havana*, from Havana, were transferred, June 30, to Hoffman Island, N. Y., for observation. Hereafter all passengers, not immune to yellow fever, will be detained to complete the 5 days' period from the time when they left Cuba. The new hotel accommodations on Hoffman Island are now in use for the first time.

A New Home for Convalescents, New York City. Four million dollars in property and bonds have been donated by Mr. John M. Burke, of New York City, to form a corporation to be known as the Winifred Masterson Burke Relief Foundation, for a convalescents' home in or near the borough of Manhattan, in memory of his mother. This is especially for the relief of worthy men and women, who, notwithstanding their willingness to support themselves, have become wholly or partly unable to do so through sickness or misfortune, or who have been discharged from hospitals before regaining sufficient strength to enable them to resume their regular employment.

Health Board, Camden, N. J. The annual report, made June 30, shows 512 cases of contagious disease with 111 deaths. Of these 194 were cases of smallpox. Dr. S. G. Bushey was elected president of the Board of Health.

SOUTHERN STATES.

McKinley's Physicians to be Paid. In the general deficiency bill, passed by Congress before its adjournment last week, was an item for the appropriation of \$45,000, or such part thereof as may be necessary, to defray the expenses incurred by the illness of the late President McKinley. As the physicians who attended the President have sent in no bills, it is not known how this appropriation is to be divided among them.

A Physician Honored. It has been decided to erect a statue of Dr. C. W. Long, the discoverer of anesthesia, to occupy a niche in Statuary Hall, in the Capitol, Washington. Dr. Long was born in Danielsville, Ga., in 1815, and died in 1878. He was a graduate of Franklin College, Pa., in 1835, and of the University of Pennsylvania Medical School in 1839. As each of the States has but 2 statues, this is a great honor.

Surgeon-General Forwood Commissioned. The new Surgeon-General of the Army, Dr. W. H. Forwood, entered upon his official duties July 1. One of his first official acts was to recommend the appointment of Dr. Charles Smart, Colonel in the Medical Department, for the position of president of the Army Medical School, a position until recently held by Dr. Forwood. Lieutenant-Colonel Alfred C. Girard has been appointed chief assistant to the Surgeon-General.

Conference for the Prevention of Disease. Surgeon-General Forwood has detailed Lieutenant-Colonel Valery Havard, Deputy Surgeon-General, to represent the medical department of the Army at the Second International Conference to Prevent Disease, to be held in Brussels, Belgium, this month.

To Keep Out Yellow Fever. On account of the prevalence of yellow fever in Mexico, the U. S. P. H. and M.-H. S. has sent extra men to the Texas frontier to prevent the entrance of any possible case of yellow fever into the United States.

A Sanatorium at Roanoke, Va. A new hospital and sanatorium is to be erected at Roanoke, Va., next to St. Andrew's Church, at a cost of \$25,000, which, it is reported, have been given by Mrs. T. F. Ryan, of New York.

Smallpox in Washington. Four cases of smallpox were found July 1, all in colored people, and the hospital, which has been closed for several weeks, has again been opened.

A Human Incubator. A Kentucky farmer, who has been severely ill for the past few months with fever, has been put to a new use during his illness. His wife, rendered desperate, both by her husband's illness and the lack of income dependent upon it, has discovered a method for utilizing the bodily heat of fever. She placed 48 eggs in her husband's bed, so protected that they would not be crushed by his movements. Her experiment proved entirely successful, only 4 of the 48 eggs failing to hatch at the end of 4 weeks.

Green Tea Without Chemicals. It was formerly the custom to use 2 poisons to preserve the color of the tea leaf in making a green tea. It has been discovered, recently, in the Department of Agriculture, Washington, that, by heating the leaf to a high temperature, the natural ferment is killed, oxygenation is prevented, and the green color of the leaf is retained.

MISCELLANY.

Antimony in the United States. The source of the supply of antimony, of which tartar emetic is one of the principal salts, is from hard lead derived from smelting lead ore, imported metal, imported antimony ore and domestic ore. During 1901 the aggregate amount of antimony available was almost 9,000,000 pounds, valued at over \$900,000. The control of the antimony industry is in the hands of a London company, with works on Staten Island, N. Y., and at San Francisco. Almost 50,000 pounds of antimony were exported from the United States in 1901.

Cholera in the Philippines.—Up to July 4, the total number of cases of cholera in the provinces was 10,332, with 7713 deaths. On that day 54 new cases of cholera were reported in Manila, with 35 deaths. On July 7 the day's record for Manila was 50 new cases, with 30 deaths; for the provinces 460 new cases with 335 deaths. The Health Board has abandoned the quarantine of persons who have been in contact with cholera patients as being ineffective, and has substituted disinfection. The Board has also abandoned cremation of the dead, and has substituted quicklime at burials, in order to meet the religious objections of the natives. Dr. W. E. Parkman, who has lately returned to California from the Philippines, states that the epidemic this year is especially virulent, the natives disregarding all sanitary regulations. A case of cholera was discovered on board the Army transport, *Thomas*, which has been detained in quarantine at Maravelaz, at the entrance to Manila Bay. The Army transport *Kilpatrick*, preparing to leave San Francisco for Manila, in addition to her general cargo, will take out 4000 coffins. The Navy De-

partment is congratulating itself on the fact that the naval forces on the Asiatic station have been singularly fortunate during the prevalence of the formidable outbreak of cholera in the east. So far there have been only 3 deaths reported to Rear Admiral Rixey, Surgeon-General of the Navy. Two were privates in the Marine Corps, and the other was an officer in the Navy. Moreover, there have not been, it is said, more than half a dozen persons attacked by the disease in the United States naval establishments in China and the Philippines. This is unusual, considering the fact that the men cannot be cooped up aboard ship, but must be given shore liberty, with its attendant dangers of contracting the disease.

Cholera in Borneo.—A despatch from Singapore, Straits Settlements, July 4, describes the ravages of cholera among the native soldiers at Sarawak, Borneo. In 3 days, 300 deaths had occurred out of 10,000 (?) men who had been sent against the native hunters in the interior of the island. Before the commander of the expedition returned to headquarters, 2000 (?) men had died. The banks of the Batang Lupar River were strewn with dead and dying soldiers. The cholera is spreading down the river. It is said that the number of troops has been greatly overstated.—*New York Sun*.

Smallpox in Alaska.—The U. S. Treasury Department has asked the Department of the Interior to transfer Sledge Island, near Nome, Alaska, to the Treasury Department, to be used as a smallpox quarantine station, on account of the prevalence of smallpox in Alaska.

Quarantine Regulations in Cuba.—President Palma and his cabinet have decided that the Cuban maritime and quarantine service should be transferred from the secretary of finance to the office of the secretary of state; also that the period of detention of nonimmune passengers arriving from Mexican ports infected with yellow fever should be 5 days from the time of arrival in Havana harbor. The passengers are detained at the Tricornia camp. The cabinet decided to request of the United States that its medical officers, stationed in the West Indies, Mexican, Central and South American ports be directed to issue bills of health to vessels coming to Cuba, to issue certificates of immunity to yellow fever, and certificates that passengers and crew have been vaccinated.

Cholera in Manchuria.—A despatch from Berlin states that the mortality in Manchuria from cholera is very great. Out of 396 cases reported July 7 at Inkau, 334 were fatal.

New Quarantine Ship.—The *Falmouth*, a 3-masted schooner, the third of a series of quarantine stations which has been fitted up with all the latest apparatus for the destruction of bacteria, left Philadelphia last week for Porto Rico. Disinfection upon her may be accomplished by steam, formaldehyde gas, sulphur fumigation and in bichloride tanks. The vessel also contained shower baths and a hospital.

Typhus Fever in Mexico.—It is announced that 40 cases of typhus fever, with 7 deaths, occurred at Tampico, Mexico, from May 1 to June 13.

Obituary.—Dr. Benjamin Andrews, at Brooklyn, N. Y., June 26, aged 83 years.—Dr. Edward Richardson Bennett, at Chicago, Ill., July 1, aged 41 years.—Dr. Thomas Hackett, at Hillsboro, Md., July 7, aged 77 years.—Dr. Arthur Ward, at Newark, N. J., July 6, aged 70 years.—Dr. Charles C. Furley, at Wichita, Kan., July 6.—Dr. Albanus Styer, at Ambler, Pa., July 4, aged 76 years.—Dr. James D. Newcomb, at Millville, N. J., July 6.—Dr. Thomas R. Goulding, at Ironton, Mo., June 30, aged 85 years.—Dr. William Currier, at Indianapolis, Ind., July 5, aged 57 years.

GREAT BRITAIN, ETC.

Charing Cross Hospital, London. The foundation of an important addition to the hospital was laid June 20, by the Duke of Connaught. A new casualty and out-patient department, isolation wards, wards for special diseases, and a new surgical ward are to be erected. The sum of \$400,000 is required to complete this work.

A Very Large Bequest. The late Charles Gassiot, director of a large London wine firm, has bequeathed \$1,250,000 to St. Thomas' Hospital, and \$150,000 to various other charities.

University of Edinburgh. The John Usher Institute of Public Health, for the erection of which Sir John Usher gave \$50,000, has recently been completed. The building contains a basement and 3 stories, and is well fitted up.

There are research rooms, museum, photographic rooms, lecture rooms, chemical and bacteriological laboratories and rooms for animal experimentation. The equipment is thoroughly modern. The expenses of constructing and equipping this building, which considerably exceeded \$50,000, were also paid by Sir John Usher.

Female Leper Asylum. The Burmah Government has given land and the Provincial Forest Department a large quantity of timber for the construction of a new female leper asylum, at Rangoon, India.

The Consumption of Tea. In spite of the statement recently made by Baron Kamura, Japanese minister of Foreign Affairs, that America is the best customer of the tea world, $\frac{1}{4}$ of the total production of tea in the world being consumed in the United States, statistics show that Great Britain is beyond all question the greatest tea-consuming country in the world. Her consumption amounts to over 6 pounds per head per year, while in the United States and in Russia, the per capita consumption amounts to about one pound; in France to about 0.06 pounds, and in Germany 0.12 pounds. The total consumption of tea in the United Kingdom thus exceeds that of all the countries of Europe together, with the United States added.

Unusually Prolonged Lactation. A very unusual case of prolonged lactation has recently been reported by 2 English physicians, a mother having been found who was still nursing a child aged 5 years and 2 months.

A New Cancer Hospital. A wealthy manufacturer of Dundee, Scotland, has given \$90,000 for the erection of a cancer hospital at that place.

Obituary. Dr. John W. Washbourn, C. M. G., F. R. C. P., F. R. C. S., physician to Guy's Hospital, and to the London Fever Hospital, lecturer on physiology and bacteriology in the Guy's Hospital Medical School, died at Tunbridge Wells, June 20, aged 38 years. He was recently decorated for his services as consulting physician in the Imperial Yeomanry Hospital, at Deelfontein and Pretoria.

CONTINENTAL EUROPE.

Russian Medical Institutions Abroad. For Russian students who have been compelled to leave Russia, Russian Medical Institutes have been established, both in Paris and in Berlin. Many of the professors in these institutes have also left Russian universities for political reasons. Among those in the Paris school may be mentioned Drs. Metchnikoff, Kovalevski and Tchuproff. At the institution in Berlin, which was recently opened, Dr. Boas delivered the first lecture.

Scandinavian Medical Congress. The Fourth Scandinavian Medical Congress for Internal Medicine was held July 4 to 6, at Helsingfors, Finland. Physicians were present from Russia, Sweden, Norway and Denmark.

Sicilian Agricultural Exposition, Palermo. A medical congress was held at the exposition, at which the subject of malaria was discussed. Dr. Baccelli dwelt especially upon the relation of the mosquito to the disease, and the prophylactic importance of promptly giving all patients quinine. A railroad station was exhibited, fitted with the appliances now in use on all Italian railroads, for keeping out mosquitoes. Models of railroad employes protected by veils, models of mosquitoes, maps of the territory afflicted, literature on malaria and a collection of quinine preparations all formed exhibits.

European Physicians. In England there are 63 physicians to 100,000 inhabitants; in Ireland, 53; in Switzerland, 52; in Belgium, 45; in France, 31; in Germany, 30; in Norway, 26; in Holland, 21; in Austria, 20; in Italy, 18; in Sweden, 14, and in Russia, 8. The reason for the underproduction of physicians in Russia is due to their overcrowding in large cities and to the ignorance of the people. A Russian peasant still believes in witchcraft, and prefers consulting the so-called sorcerer to consulting a physician.

A Bequest. The late Dr. Raztsvietoff has left \$400,000 for establishing a home for indigent physicians in Russia. It is said to be not at all uncommon for physicians in Russia to die without leaving sufficient money to pay funeral expenses.

Obituary. Among the medical men who have died recently, in foreign countries, are Dr. Adolphe Schuermans, ophthalmologist to the Hôpital St. Jean, Brussels. Dr. J. J. Melitor, of Arlon, Belgium, member of the Belgian Academy of Medicine, aged 98 years; and Dr. Polaillon, surgeon to the Hôtel-Dieu, Paris, aged 66 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

June 23, 1902.

1. Remarks on Some Cases in General Surgery. G. B. FERGUSON.
2. Observations on the "Open Method" of Treating Exceptional Cases of Septic Arthritis of the Knee. W. WHITEHEAD.
3. A New Principle of Curing Club Foot in Severe Cases in Children a Few Years Old. A. OGSTON.
4. A Clinical Lecture on Genu Valgum. C. A. MORTON.
5. Spina Bifida: Its Operative Treatment Amongst Out-Patients. J. M. NICOLL.

1.—Ferguson reports the following cases which were successfully operated upon: **Gastrostomy** for cancer of the lower end of the esophagus; **Amputation at the hip joint** by the Wyeth method; **Excision of the superior maxilla** for sarcoma; **acute appendicitis**; **Ovariectomy** during general peritonitis due to the bursting of a secondary cyst; **Burst ovarian cyst**; **Pancreatic cyst** treated by marsupialization and a case of **epithelioma of the tongue** excised after the method of Whitehead. [F. T. S.]

2.—Whitehead reports a case of **septic arthritis of the knee**, which followed an operation for the excision of the internal semilunar cartilage. He opened the joint by sawing transversely through the patella, acutely flexed the leg on the thigh, divided the crucial ligaments, scraped away all the diseased tissue and packed the joint with iodoform gauze. The joint was maintained in a flexed position for 15 days, so that no discharge could accumulate. [F. T. S.]

3.—Ogston believes that none of the plans for the treatment of **club foot** are thoroughly satisfactory. He makes a curved incision over the outer part of the tarsus from the external malleolus to the calcaneocuboid joint and divides the cartilaginous shell surrounding the osseous center of the astragalus, enucleating the bony kernel with a Volkmann spoon. This makes the bone plastic, so that it may be moulded into any required shape. If the correction is not sufficient, the cuboid and os calcis may be similarly attacked. The bone is restored by ossification of the shell of cartilage that remains. No joint is opened or injured, and the ligaments and other parts of the foot are not interfered with, so that perfect motion in all the articulations is obtained. [F. T. S.]

4.—Morton holds that curving of the tibia and fibula is the essential condition in the production of **genu valgum**, and that abnormal descent of the internal condyle is the exception. When elongation of the internal condyle is found, it may be secondary to the curving of the leg bones, for, as the result of this curve, the weight of the body is taken off the internal condyle, and if pressure is removed, excessive growth may result. Osteotomy should be done on the bones which are deformed, and not on the normal femur. Morton removes a wedge of bone from the inner side of the tibia, just below the tubercle; the apex of the wedge should be directed upward, and the width of the base should correspond to the degree of curvature. Morton has little faith in the efficiency of splints and irons for the correction of genu valgum, and has never employed osteoclasis. He calls attention to the tendency towards spontaneous rectification, which some cases of rickety deformity exhibit. [F. T. S.]

5.—Nicoll has operated upon 11 cases of **spina bifida**, allowing the patients to be taken home after the operation. One patient afflicted with sloughing spina bifida died of sepsis on the sixth day after excision. Of the remaining 10 patients treated by incision, 8 are alive and well, one died on the eighth day, of carbolic acid poisoning, and one died at the end of 3 years of pertussis. Eight were pure meningoceles and in 2 there were some nervous elements in the sac. [F. T. S.]

LANCET.

June 21, 1902.

1. An Address on the Relation of Biology to Medicine. J. ROSE BRADFORD.
2. The Ingleby Lectures of Chronic Hypertrophy of the Faucial and Pharyngeal Lymphoid or Adenoid Tissues. (Lecture II.) F. MARSH.
3. The Relation of Vital Statistics to Sanitary Reform. ARTHUR NEWSHOLME.
4. Embryological Aspects and Etiology of Carcinoma. J. BEARD.
5. A Case of Difficult Diagnosis with a Rare Complication. H. J. MACKAY.
6. Large Malignant Growth of the Pylorus; Posterior Gastrojejunostomy; Patient in Perfect Health 15 months after Operation. MAYO COLLIER.
7. Eosinophilia Associated with Hydatid Disease. C. G. SELIGMANN and L. S. DUDGEON.

1.—Bradford delivered an address on the relation of biology to medicine, before the University College Medical Society on May 21, 1902. The author mentions that biology may be considered from at least 3 points of view: (1) From the standpoint of a science of educational value for the training that it affords to the human mind; (2) it may be considered in relation to practice, the immediate questions that present themselves to every practitioner in medicine; and (3) it may also be regarded from the viewpoint of the influence which it exerts, has exerted, and will exert still more in the future, probably, on the progress of research in medicine. [F. J. K.]

2.—Marsh, in discussing chronic hypertrophy of the faucial and pharyngeal lymphoid and adenoid tissues gives a résumé of the history of this condition and its treatment. After dealing with the symptoms and pathology of the condition, it is suggested that operation is advisable for the following conditions: (1) Aural symptoms; (2) distinct nasal obstruction; (3) frequent and chronic nasal attacks interfering with health and education; (4) cervical adenitis associated with adenoiditis; and (5) reflex conditions unrelieved by treatment and for which there can be found no other apparent cause. In performing the operation the anesthesia is an important part of the procedure. Marsh prefers to use chloroform in operations upon children. The anesthetic should never be pushed to the degree of interfering with laryngeal reflex. It is extremely important to have the anesthetic administered by an experienced person. Marsh has used kalene or ethyl chloride in 20 cases with the most satisfactory results. After the operation nose-breathing exercises should be carried out for a time and, if there has been previous middle ear trouble, inflation with the Politzer air-bag is advisable. [J. H. G.]

3.—Newsholme writes on the relation of vital statistics to sanitary reform. This article deals largely with English laws pertaining to medical registration and compulsory notification of infectious diseases. [F. J. K.]

4.—Beard contributes an article entitled the embryological aspects and etiology of carcinoma. He summarizes as follows: Granted the facts of the origin, migrations and history of the germ cells of vertebrates and assuming the course of the life cycle to be that previously indicated by hypothesis, cancer is derived from vagrant primary germ cells, which, instead of forming a more or less complete embryo or embryoma, skip this and give rise to a larva or phorozoön of indefinite unrestricted powers of growth. This is, of course, purely hypothetical, but it becomes the true explanation by the following facts. On one hand, as his researches have shown, the hypothetical "verirrte Keime," or "lost germs" of pathologists not only exist, but are numerous and represented and by things capable of abnormal development, the vagrant primary germ cells. On the other hand, the carcinomatous nature of such an abnormal growth of a larva or phorozoön has been abundantly demonstrated by Marchand for the instances of the pernicious growth of chorion, chorionepithelioma. If such a chorion, the representative more or less complete of the asexual generation, when robbed of its embryo or when it fails to form such, can—and this is established—give origin to a malignant carcinomatous tumor, the nature of cancer is clear. The vagrant primary germ cell is the seed,

while its fruit sometimes represented by an embryo may on occasion take the form of a carcinoma. [F. J. K.]

5.—Mackay presents a report of a case of difficult diagnosis. The patient, a married woman, 37 years of age, was suddenly taken ill with a chill and, later, headache, nausea and vomiting followed. The diagnosis of enteric fever was afterward made. Many symptoms common to the gastro-intestinal form of influenza were present. On the fourteenth and fifteenth days of the illness, the abdominal symptoms became more pronounced and abdominal tenderness developed. On the 31st., the sixteenth day of the illness, a sudden fall in the temperature occurred and the patient died some hours afterward. [F. J. K.]

6.—Collier describes an interesting case of extensive malignant growth involving the pylorus and a portion of the stomach and producing extensive adhesions, in which he performed a posterior gastro-entérostomy with the most beneficial results. The patient at the time of operation was in a very serious condition, being very weak and wasted. Five months after the operation he returned to his work as a blacksmith, and 15 months after the operation was still apparently in the best of health and continued his work. At this time the growth was still palpable, was about the same size, but was not tender. [J. H. G.]

7.—Seligmann and Dudgeon report eosinophilia associated with hydatid disease. This article contains notes on a case of hydatid disease which occurred in a woman, 22 years of age. The first blood examination showed 6,290,625 red bloodcells and 17,000 leukocytes per cubic millimeter, hemoglobin, 70 per cent.; color index, 0.6; and the differential count revealed polymorphonuclear neutrophils, 22 per cent.; eosinophiles, 57 per cent.; lymphocytes, 20 per cent., and basophiles, 1 per cent. The patient was operated upon for hydatid disease of the liver and 10 ounces of a clear fluid which contained hooklets were withdrawn from a cyst in the right lobe of the liver. The bloodcount made 2 days after the operation showed 7,000 leukocytes per cubic millimeter and the differential count was as follows: Polymorphonuclear neutrophils, 58.8 per cent.; eosinophiles, 1.2 per cent.; lymphocytes 28 per cent. and basophiles 1 per cent. A count made 10 days after the operation revealed polymorphonuclear neutrophils, 60 per cent.; eosinophiles, 1 per cent.; lymphocytes, 29.4 per cent.; and basophiles, 0.6 per cent. Some months later, the blood showed 2,934,373 erythrocytes, 7,600 leukocytes per cubic millimeter and the differential count was polymorphonuclear neutrophils, 73.2 per cent.; eosinophiles, 3.2 per cent.; lymphocytes, 22.2 per cent., basophiles, 1.4 per cent. [F. J. K.]

MEDICAL NEWS.

July 5, 1902. (Vol. 81, No. 1.)

1. A Plea for the Simpler Medicinal Treatment of Chronic Nervous Diseases. JOSEPH COLLINS.
2. Asepsis and Antisepsis in Their Relation to Modern Surgical Technique. F. H. BADGER.
3. Tetany. SANGER BROWN.
4. The Examination of the Gastric Contents in Children. LOUIS FISCHER.

1.—See Philadelphia Medical Journal, June 21, 1902, page 1119.

2.—Badger says that in the antiseptic method the same preparations are made as in the aseptic, but during the operation the sponges used are impregnated with some chemical germicide; if irrigation be practised a solution of some chemical germicide is used and the wound is dressed with gauze impregnated with some chemical germicide. In this method the surgeon not only strives to exclude bacteria from the wound, but introduces some agent which will tend to destroy any bacteria present. If no irrigation be practised and the wound be dressed with dry gauze, it is termed the "dry antiseptic method." [T. M. T.]

4.—Fischer's conclusions from the study of a series of cases are as follows: (1) In atrophic children and subacute dyspeptic conditions HCl can not be found. The organic acids, lactic and butyric, are present. Sometimes acetic acid is also found. There is acidity in all anemic conditions, also in that form of disease resulting from mal-assimilation, known as athrepsia infantum. The motility of

the stomach is greatly reduced. The salol test is delayed for several hours in some instances. (2) In very young infants, especially in healthy nurslings, there is an excess of lactic acid at the commencement of digestion after the sixth month and until the end of the first year. Free hydrochloric acid can be found at the end of the digestive process in the same proportion as it is found in adults. In healthy children over one year, we find free hydrochloric acid one to one and one-half hours after feeding. Some specimens were procured two hours after feeding and still other specimens two and a half hours after feeding. (3) At the beginning of the digestive process, lactic acid predominates; at the end of digestion hydrochloric acid is in excess. When gastro-enteric disorder exists, free hydrochloric acid could not be found. (4) The gastric contents of children fed on raw milk, warmed to about 100° F. always showed a better state of digestion than did those of children fed on milk which had been previously subjected to superheating. (5) Cheesy curd, so frequently found in hard, rubbery lumps two and three hours after a meal of sterilized milk, is more flocculent when raw milk is used. (6) Constipation, which invariably exists when superheated milk is used, disappears without medicinal treatment when raw milk is used. (7) Breast milk has a temperature of about 100° F. and cow's milk should never be fed at any other temperature. The more mechanical manipulation milk is subjected to, the greater will be the risk of exposing the same to contamination. (8) Careful study of babies fed exclusively on sterilized milk shows systemic defects, a tendency to infection; their bony structures are deficient; spinal disease and deformities can be traced to deficient nutrition. [T. M. T.]

MEDICAL RECORD.

July 5, 1902.

1. What Shall We Do With the Consumptive Poor?
S. A. KNOFF.
 2. Intussusception With a Report of Three Additional Operative Cases. JOHN F. ERDMANN.
 3. On the Transportation of Mosquitoes by Vessels.
EDWARD SOUCHON.
 4. Contagious Ophthalmia in Industrial Residential and Public Schools, and in Asylums and Hospitals.
RICHARD H. DERBY.
 5. Subglottic Sarcoma Removed Endolaryngeally With a Galvanocautery Snare. J. W. GLEITSMANN.
- 1.—Knopf emphasizes the need for material assistance on the part of the consumptive poor by the establishment of properly equipped hospitals and sanatoria for tuberculous patients. He shows that the United States is far behind Germany and France in the number of such institutions. [T. L. C.]
- 2.—Erdmann reports 3 additional cases of intussusception which brings the total of his series up to 12. There were 10 operable cases of which 5 died and 5 recovered. Of the fatal cases, operation was the last resort. [T. L. C.]
- 3.—Souchon discusses the transportation of mosquitoes by vessels. It is not uncommon to have mosquitoes blown a distance of 10 miles or even more to ships when the conditions are favorable. [T. L. C.]
- 5.—Gleitsmann reports a case of subglottic sarcoma, removed endolaryngeally with a galvanocautery snare. Five months after operation there was no recurrence. [T. L. C.]

THE NEW YORK MEDICAL JOURNAL.

July 5, 1902. (Vol. LXXVI, No. 1.)

1. Minor Injuries of the Eye. PERCY FRIDENBERG.
2. The Differential Diagnosis of Acute Polyarticular Rheumatism, from a Surgical Standpoint.
WALTER G. STERN.
3. A Case of Progressive Muscular Atrophy and One of Pseudohypertrophic Paralysis in Young Children.
M. NEUSTAEDTER.
4. Disinfection. ROBERT J. WILLSON.
5. The Eye as a Factor in Causing General Symptoms; Illustrated by the Report of a Case.
JAMES L. MINOR.
6. A Further Study Relative to the Pelvic Organs, Their Associated Diseases, Symptoms and Treatment.
JOHN L. JELKS.

1.—Fridenberg arranged injuries to the eye in the following classes: (1) Injuries by blunt violence, contusion or commotion; (2) injuries by penetration or laceration, wounds; (3) injuries by retention and irritation, foreign bodies; (4) injuries by combustion and corrosion, burns and scalds. He calls attention to the fact that many eye accidents are due to neglect of protective measures among stone-cutters, masons and workmen in other trades; to careless handling, especially by children, of pointed and cutting instruments; to toy pistols and air-guns; to reckless playing with fire and matches, gunpowder, percussion caps and the like. Practically all of these injuries are preventable and it is part of the physician's duty, no less than that of parents and teachers, to call attention to the danger of such amusement. [T. M. T.]

2.—Stern gives the features of acute polyarticular rheumatism as follows: (1) The disease may only manifest itself in one joint throughout its entire course; (2) it may be of such a mild type, and the effusions so scant, as to be difficult of demonstration, and yet present later on all the grave endocardial symptoms of a severe case; (3) the initial acute symptoms and the polyarticular character may be masked, and the disease end with a sudden attack upon some one joint, which becomes tensely swollen, especially painful, the periarticular tissues infiltrated, and the joint securely ankylosed; (4) the swelling may not always be situated within the joint capsule. At times the neighboring tendon sheaths or the subcutaneous tissues become involved, making the impression of a phlegmon or lymphangitis. This, however, only comes on late in the course of an attack. He also briefly gives the diseases which can simulate acute polyarticular rheumatism: (1) Primary forms of arthritis, such as: (a) acute pseudorheumatic tuberculous arthritis; (b) synovitis serosa; (c) synovitis purulenta and arthritis purulenta; (d) intermittent hydrops; (e) syphilitic arthritis; (f) arthritis deformans. (2) Arthritis secondary to infectious diseases, septic infections, septicemia or constitutional diseases; these are: (g) gonorrheal arthritis; (h) arthritis after scarlet fever, pneumonia, diphtheria, etc.; (i) arthritis in septicopneumonia; (j) acute osteomyelitis; (k) osteochondritis, syphilitic and rhachitic; (l) arthritis in pulmonary tuberculosis; (m) gout; (n) joint neuralgia or neuroses. [T. M. T.]

3.—Willson, in his article on disinfection, calls attention to the disinfection of everything used by tubercular patients. Then towels, bed and table linen, and washable clothing should be immersed in a disinfecting solution before leaving the room where used. The articles used by them for all domestic purposes should be thoroughly disinfected before being used by anyone else. The articles of their table service should be used by them only and washed in a separate basin especially reserved for them and always scalded after using. Proper attention to the details of disinfection in conjunction with other measures of preventive medicine will make outbreaks of contagious diseases rarer than common. [T. M. T.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 3, 1902.

1. The Present Status of the Practice of Medicine.
W. S. EVERETT.
 2. The Importance of Milk Analysis in Infant Feeding.
A. H. WENTWORTH.
 3. On the Classification of the Benign Thyroid Tumors.
J. H. PRATT.
 4. Tuberculosis of the Testicle. P. THORNDIKE and
W. T. BAILEY.
 5. Tuberculosis of the Urinary Tract. EDGAR GARCEAU.
 6. Tuberculosis of the Prostate. L. R. G. CRANDON.
- 1.—In a long address upon the present status of the practice of medicine, Everett insists upon the urgent need of more stringent applications of hygienic and sanitary laws. [M. O.]
- 2.—Wentworth concludes that the upper fourth of a quart of milk in which the cream has risen contains approximately 10% of fat. The milk of different cows, however, shows much variation. It is advisable to have the fat percentage determined when an infant begins to take modified milk. For modified milk, cream with at least 10% of fat should be used, for this will contain low pro-

teids. The cream, or top milk, procured at home, is to be preferred to cream bought for modifying milk. Within certain limits accurate percentage modifications of milk are not essential to the well-being of a majority of the babies fed on modified milk. While it is convenient to buy prepared modified milk, commercial modification of milk have objections; it may be inaccurate, stale or too expensive. Wentworth advises the estimation of the fat percentage by the Babcock method. His experiments are given. [M. O.]

3.—Pratt divides **benign tumors of the thyroid gland** into 3 groups: (1) Simple adenoma, with closed vesicles filled with colloid matter, the structure resembling normal thyroid. Such goiters undergo colloid, cystic or fibrous degeneration. (2) Fetal adenoma, with solid masses or rosettes of epithelial cells, with little or no colloid matter, the structure resembling the fetal thyroid. (3) Papilliferous adenoma, with branching papulae lying in cystic spaces, developing from the walls of old cysts, or true adenocystoma, resembling adenocystoma of the ovary. [M. O.]

4.—Thorndike and Bailey have investigated 75 cases of **tuberculosis of the testicle**. This occurs in young adults, following gonorrhea in one out of every 3 cases. Urinary symptoms were noted in but 20%; the vas deferens being affected in only 16%. The testis as well as the epididymis was involved in 43%. They advocate early operation upon tuberculous prostates, seminal vesicles and testicles. [M. O.]

5.—Among 415 cases of **renal tuberculosis** 122 deaths occurred. Nephrectomy was performed 257 times, and 241 cases were well in a few months after operation. Two hundred and sixty-six of the 415 patients were women, yet more deaths are recorded in men than in women. Thus tuberculosis of the kidney in the male is often latent. The majority of the patients were between 20 and 40 years of age. Miliary tuberculosis of the kidney is more common than is caseous tuberculosis. In the 415 cases tuberculosis existed elsewhere in 54, in the lungs in 37. Infection through the ureters is rare in the female, but a close relation between genital and urinary tuberculosis is noted in the male. Vesical tuberculosis is more common in men than in women. The kidney is oftener affected primarily in males than in females. Yet more operations on the kidney were performed upon women than on men. [M. O.]

6.—In **urogenital tuberculosis** the prostate is affected in two-thirds of the cases. It may be primary or secondary, more often ascending than descending. The diagnosis depends on catarrhal prostatitis, pain, a drop of blood at the beginning of micturition, frequent and burning urination. Palpation reveals a soft, tender prostate. Stone in the bladder and malignant disease must be differentiated. The prognosis is always grave. [M. O.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

July 5, 1902.

1. The Treatment of Pneumonia. N. S. DAVIS, JR.
2. Life and Work of the Late Prof. Christian Fenger. Memorial Address Delivered to the Graduating Class of the Rush Medical College, April 4, 1902. N. SENN.
3. Nephrectomy, Subsequent Nephrotomy and Finally Suprapubic Cystotomy. E. D. FERGUSON.
4. The Surgical Treatment of Complicated but Aseptic Retroversion of the Uterus in Fruitful Women, Etc. A. GOLDSPOHN.
5. The Surgical Treatment of the Uterosacral Ligaments Through the Vagina in Retroversion of the Uterus. J. WESLEY BOVEE.

1.—Davis contributes an article on the **treatment of pneumonia**. He mentions that the mortality from croupous pneumonia has been increasing during recent years. He reviews the treatment by bleeding and contends that venesection is of value in cases of pneumonia with a dilated right heart accompanied with beginning edema of the lungs. He states that tartar emetic, veratrum viride, poulticing and blistering have fallen into general disuse at the present day. He then outlines the plan of treatment which is employed by many. He emphasizes that the prevention of toxin accumulation in the organs by proper elimination and care of the heart are most essential in the

treatment of this disease. The value of oxygen and diffusible stimulants, opiates and external antipyretics is mentioned. He thinks that the pneumococcal serums upon the market are useless remedies. [F. J. K.]

3.—Ferguson reports an interesting case of a boy upon whom he first performed **nephrectomy** for a pyonephritis complicated by stone and urinary fistula. A few weeks subsequent to this operation the patient developed **obstruction of the opposite ureter** by a calculus. The stone was found 2 inches below the kidney, was pushed back into the pelvis and removed. Before the patient left the hospital he developed **obstruction of the urethra** from lodgment of a stone which was removed after splitting the meatus. About a month after this operation the patient presented symptoms of **calculus in the urinary bladder** and a suprapubic cystotomy was performed. Two months and a half after this operation the patient was quite well. From each of the 4 operations the boy made a good recovery. [J. H. G.]

4.—See Philadelphia Medical Journal, June 21, 1902, page 1107.

5.—See Philadelphia Medical Journal, June 21, 1902, page 1107.

AMERICAN MEDICINE.

July 5, 1902.

1. A Case of Cystic Degeneration of Both Kidneys. I. N. DANFORTH.
2. Pernicious Anemias: Their Diagnosis and Treatment. GEORGE DOCK.
3. Tuberculosis of the Iris. HARRY FRIEDENWALD.
4. Six Cases of Epilepsy Due to Ametropic Eye-Strain. GEORGE M. GOULD.
5. Further Notes on Vesical Hyperesthesia in the Female. FREDERIC BIERHOFF.
6. Ovarian Irritation as a Factor in the Etiology of Pseudocyesis. J. THOMPSON SCHELL.

1.—See Philadelphia Medical Journal, report of the Meeting of the Association of American Physicians, page 875, May 17, 1902.

2.—Dock discusses the **pernicious anemias**. His paper includes a résumé of our knowledge of these anemias, and the importance and interpretation of the results of blood examination. Treatment is also outlined briefly. [T. L. C.]

3.—Friedenwald reports 2 cases of **tuberculosis of the iris**. In both of his cases the tubercles were distinctly grayish and pearl-like in appearance. There were also deposits on the inner surface of the cornea, probably tuberculous, which differed from those ordinarily found in plastic or serous iritis. [T. L. C.]

4.—Gould reports 6 cases of **epilepsy due to ametropic eye-strain**. He states that, while this cause of epilepsy is rare, the proper relief of eye-strain in cases of epilepsy should never be neglected. [T. L. C.]

5.—Bierhoff discusses **vesical hyperesthesia in the female**. He believes that this term is in almost every case erroneously applied. The hyperesthesia is but a symptom and due to some change in the vesical mucous membrane or adjacent organs. [T. L. C.]

6.—Schell is of the opinion that **pseudocyesis** is probably a manifestation of hysteria, but he believes that **pelvic irritation** is a possible cause of the hysteria in some cases. Four case-reports are included. [T. L. C.]

AMERICAN JOURNAL OF ANATOMY.

November, 1901. (Vol. I, No. 1.)

1. Development of the Limbs, Body Wall and Back in Man. CHARLES RUSSELL BARDEEN and WARREN HARMON LEWIS.
2. The Intralobular Framework of the Human Spleen. PRESTON KYES.
3. Studies on the Neuroglia. G. CARL HUBER.
4. The Normal Histology of the Human Hemolymph Glands. ALDRED SCOTT WARTHIN.
5. On the Morphology of the Pineal Region Based upon its Development in Acanthias. CHARLES SEDGWICK MINOT.

1.—Bardeen and Lewis contribute a paper on the **development of the limbs, body wall and back in man**. Their conclusions are based on an examination of 13 human em-

bryos, ranging in age from 2 to 7 weeks. The myotoms are the most convenient landmarks for describing the relative positions of structures, and, consequently, the studies are made with these masses of tissues as a basis for describing the positions of the limb buds. At the end of the fourth week of development about 38 myotoms have been differentiated: 3 in the occipital region, 8 in the cervical region, 12 in the thoracic region, 5 in the lumbar region, 5 in the sacral region and 5 in the coccygeal region. The arm bud appears opposite the fifth cervical to the first thoracic myotoms; the leg bud appears opposite the first lumbar to the first sacral myotoms, 11 myotoms intervening between the caudal extremity of the arm bud and the cephalic extremity of the leg bud. The limb buds and the body wall arise in the region in which the amnion joins the axis of the embryo, a portion of the amnion to which the name *membrana reuniens* has been applied. A thickening of the *membrana reuniens*, known as the *Wolffian ridge*, indicates the beginning of the limb buds, which increase in size rapidly after they make their first appearance. The limb girdle and the upper portion of the limb develop from the basal portion of the limb bud, while the forelimb and the extremity develop from the distal portion. The union of these two portions of the limb bud is flexed and becomes the elbow and the knee, respectively. As the limbs grow they gradually migrate toward the caudal extremity of the embryo until they finally occupy the positions in which they are found in the adult. During the growth of the limbs the body wall grows forward at the expense of the *membrana reuniens*. During the fifth week, the myotoms give rise to a dorsoventral muscle mass in which the characteristic segmentation of the myotoms disappears. This muscle mass becomes divided longitudinally into 2 great divisions, a dorsal and a ventrolateral. The dorsal musculature of the adult is derived from the former and the latter gives rise to the muscles of the thorax and the abdomen. Processes from the sklerotoms, nerves and bloodvessels grow into the body wall from the adjacent spinal segments. Neither the myotoms nor the sklerotoms send processes into the limb buds; the skeletal and the muscular structures of the limbs are differentiated from the mesodermic tissue of the limb bud. Bloodvessels and nerves, on the other hand, grow into the limb buds. The brachial plexus is formed and its branches grow into the arm during the latter half of the fourth week. The lumbosacral plexus is formed and its branches grow into the leg during the first half of the fifth week. Skeletal differentiation begins in the region of the shoulder or hip and extends distally and proximally, just before the ingrowth of the nerves. Muscle differentiation follows the entrance of a motor nerve into a given region immediately.

[J. M. S.]

2.—The coarser framework of the human spleen divides the organ into small masses of the parenchyma, the lobules, each having an afferent artery near its center and the larger afferent veins at its periphery. The finer framework of the spleen subdivides each lobule and supports the individual spleen cells and the smaller bloodvessels contained therein. The finer framework is an extension within the lobule of the coarser framework of the trabeculae and is indicated as the intralobular framework. Kyes has studied this intralobular framework of 15 human spleens. He removed the spleen pulp by maceration and by digestion with pancreatin so that the isolated framework might be inspected. The delicate fibrils composing the intralobular network vary from 1 to 5 microns in diameter. They branch and anastomose in all directions to form a network with meshes from 16 to 40 microns in diameter. The fibrils are directly continuous with those of the coarser interlobular framework at the periphery of the lobule and with the sheaths of the bloodvessels within the lobule. The network is devoid of nuclei and the picture is that of a continuous system of branching and anastomosing threads of fairly uniform caliber. The network extends throughout the entire lobule between the capillary veins and in a modified form within the Malpighian follicles. The arrangement of the fibrils immediately surrounding the capillary veins is so modified as to form a definite framework limiting the venous spaces. In all their reactions the component fibrils correspond to reticulum as described by Mall. They differ from elastic fibrils in that they are not digested by pancreatin ferment and are resistant to weak acids and alkalies. The staining reactions of these fibrils are in-

termediate between that of elastic and white fibrous tissue.

[J. M. S.]

3.—Huber has studied the neuroglia of the dog, the cat, the rabbit, the dove, the tortoise and the frog. He concludes that the neuroglia of the spinal cords of these animals consists of the neuroglia fibers and the neuroglia cells. The neuroglia fibers differ chemically from the protoplasm of the neuroglia cells, although this difference is not equally well marked in all the animals studied. The neuroglia fibers may be regarded as intercellular structures, as they bear no constant relation to the great majority of the cell nuclei or neuroglia cells observed. By the method of Benda, the author has shown that there are certain neuroglia cells, usually possessing protoplasmic branches, the neuroglia fibers of which are not completely separated from the protoplasm, but are in continuity with it or even pass through it. The neuroglia fibers very generally follow the course of the protoplasmic branches of the neuroglia cells. [J. M. S.]

4.—Large numbers of glands varying in size from that of a pin-point to that of a large cherry and of a deep red or chocolate color are found in the prevertebral fat of the bullock and the sheep. These are known as the **hemolymph glands**. They are also found in the human body, occurring in greatest numbers in the prevertebral, retroperitoneal and cervical regions, in the neighborhood of the adrenal and renal vessels, along the brim of the pelvis, in the root of the mesentery and in the omentum. In cases of anemia these structures may be enlarged throughout the body so that they may be found in large numbers. In the majority of cases they are round or oval in shape and are furnished with a hilum through which vessels pass. There is usually a relatively large plexus of vessels associated with each gland, the veins in particular being large and prominent. It is possible that a new formation of these glands takes place in pathological conditions to compensate for spleen or for bone marrow. Warthin divides the hemolymph glands into (1) the splenolymph glands and (2) the marrowlymph glands. The splenolymph glands possess a relatively thick capsule, which contains a varying amount of unstriped muscle and very little elastic tissue, and is surrounded by adipose tissue. From the external capsule trabeculae of similar tissue extend into the gland, dividing it into irregular lobules. There is a bloodsinus immediately beneath the capsule, which sometimes extends entirely around the periphery of the gland, but which is usually interrupted by masses of lymphoid tissue. Branches which become larger and confluent as they converge toward the hilum, pass from the peripheral sinus toward the center of the gland. These intercommunicating bloodspaces divide the lymphoid tissue into irregularly-shaped islands. The lumina of these sinuses are traversed by a coarse reticulum through the meshes of which the blood circulates. The lymphoid tissue lying between the sinuses resembles that of an ordinary lymphgland very closely. The cells of this tissue are for the most part small lymphocytes. Scattered areas and groups of hyaline substance or solitary hyaline bodies which are degenerated red bloodcorpuscles are found in the reticulum. The reticulum resembles that of an ordinary lymphgland. That of the bloodsinuses is more abundant and coarser than that of the lymphsinuses of the lymphglands. The arteries enter the hilum and divide quickly into small branches that empty into the bloodsinuses, from which the blood is collected by the veins which pass out at the hilum or obliquely through the capsule. The marrowlymph glands are less numerous than the splenolymph glands. They have a thin capsule with but little unstriped muscle and yellow elastic tissue. Delicate trabeculae run from this capsule toward the center of the gland. There is a small bloodsinus beneath the capsule that usually runs entirely around the periphery and from this narrow branching sinuses accompany the trabeculae toward the center of the gland. All of the sinuses are filled with a coarse reticulum through the meshes of which the blood circulates. The lymphoid tissue is arranged in irregular islands between the sinuses in much greater amount than in the splenolymph glands. Large numbers of fat cells are usually seen in the central portions of the gland. The reticulum of the lymphoid tissue is more delicate and contains but little elastic tissue. [J. M. S.]

THE PRACTITIONER.

February, 1902.

1. Scarlet Fever, Measles and German Measles—Is There a Fourth Disease? CLAUDE B. KER.
2. What is the Best Form of Operative Treatment for the Cure of the "Enlarged" Prostate?

E. HURRY FENWICK.

3. Auscultatory Percussion as a Means of Diagnosis in Thoracic Disease. S. H. HABERSHON.
4. On Floating Kidney as a Cause of Obstructive Jaundice and Hepatic Colic. J. HUTCHINSON, JR.

1.—See Editorial, *Philadelphia Medical Journal*, March 8, 1902.

2.—Fenwick discusses operative treatment for the cure of the enlarged prostate. There are 5 different procedures at present in favor with the profession. These are: (1) Resection of one or both vasæ deferentiæ (vasectomy). (2) Removal of one or both testes (orchidectomy). (3) Division of the prostate at the orifice of the bladder through a perineal opening (perineal prostatotomy). (4) Division of the prostate at the orifice of the bladder by an electrocautery knife introduced along the urethra (Bottini). (5) Removal or enucleation of the obstructing parts of the prostate (perineal or suprapubic prostatectomy). The writer does not believe that the prostate diminishes markedly in size after orchidectomy or vasectomy, but that its contour is favorably changed, enlarging the urethral orifice and channel, and also rendering the walls more pliable and extensible to the pressure of the emergent urine. He expresses no confidence in the wide applicability of the Bottini operation. Discussing the indications for perineal and suprapubic prostatotomy and prostatectomy he states that there are 3 forms that will embrace most of the cases. In the first the one and only obstruction is in the form of a projecting bar or collar at the orifice of the bladder and in this the prostatic urethra is usually wide. In the second form the only obstruction consists in a median lobe which overlies the orifice of the bladder, the prostatic urethra being also wide enough for free urination. The third form embraces the very large adenomatous prostates in which intravesical lobes, not only project over and obstruct the urethral orifice, but additional tumors also bulge into the urethral canal and render that channel narrow, distorted and especially difficult of catheterization. He calls attention to the necessity of considering the rectal contour of the prostate, the consistence of its lobes and the condition of the interlobar sulcus. The clinician must always be on his guard to avoid mistaking a commencing hard carcinoma for a hard fibrous prostate. Hard cancer of the prostate is not so very rare and it is most insidious in the onset. There is no treatment so disastrous to the patient as perineal section and drainage of a hard carcinomatous prostate. There is no prostatic agony so maddening as that produced by the forcible insertion of the finger and tube along a prostatic channel stiffened by a cancerous deposit in one or both lobes. In the median lobe group the only obstruction is that of the median lobe to micturition. The operation best adapted for the fibrous median lobe form is suprapubic cystotomy. The median lobe is removed, if possible, by making rough flaps of the mucous membrane which will fall together and prevent that distressing recurrent irritation which is sometimes noticed when dense scars are noted at the bladder neck. In the third group he follows Freyer who points out that in enucleating adenomatous masses we practically often empty the capsule of the prostate and that it is often wise to do so. The choice of route must be left to the exigencies of the case as well as to the judgment of the operator, but personally he advocates the perineal route if there is any doubt about the strength of the patient. He gives the following steps as necessary of adoption before any case is operated on by those who have at command such diagnostic accessories as the cystoscope and the X-ray: (1) The preparation of the patient with small doses of hexamethylen-tetramine. (2) The estimation of the length of the prostatic urethra (the perineal disease of Watson). The estimation of the amount of residual urine. (3) The careful examination of the rectal contour of the gland, and its consistence digitally and bimanually under chloroform. (4) Cystoscopy, if the instrument can be passed without undue violence, to demonstrate the presence or absence of a median lobe, to

eliminate growth of the bladder and encysted stone. (5) Radiography to eliminate deeply-lying postprostatic or post-trigonal stone in large and irregular prostates. [T. L. C.]

3.—Habershon discusses auscultatory percussion as a means of diagnosis in thoracic disease. There are 2 forms of auscultatory percussion. In the former we listen to sound vibrations conducted through a gaseous medium, usually of low density. In the latter the vibrations are conducted through solid organic structures of the body. The important points to be remembered about the first and best-known form of auscultatory percussion which he explains in detail are these: (1) The reason for the production of a musical tone or bell sound. (2) The conduction of the sound in all directions with equal and undiminished density. (3) The reasons why a musical tone or note in the sound producer plays some part in the production of the musical note of the cavity. (4) The reasons why the sounds are sometimes absent or poor. (5) The exact limitation of the cavity by the bell sound. In the diagnosis of lung conditions Habershon regards auscultatory percussion of greater value than in outlining the cardiac dulness and he concludes that, while it has its limitations, auscultatory percussion is a physical aid to diagnosis of great value. [T. L. C.]

4.—Hutchinson contributes a paper on floating kidney as a cause of obstructive jaundice and hepatic colic. He reports 2 cases of biliary obstruction due to peritoneal bands. In both there were recurrent attacks of jaundice, formation of Riedel's lobe and floating kidney. Cholecystotomy and nephropexy were performed and cure followed. Both occurred in young married women, which proves the importance of taking into consideration floating kidney as a cause of jaundice and hepatic symptoms in these patients. He discusses the mechanism of the obstruction caused by floating kidney and states that we have the following factors to explain the occurrence. (1) Downward displacement of the third part of the duodenum, with stretching of a common bile duct. (2) Displacement of the gall-bladder and sharp kinking of the cystic duct. (3) Torsion of the vertical part of the duodenum and perhaps even of the bile-duct. It is probable that in these the explanation is to be found and not in the theory of traction through bands of the peritoneal investment of the right kidney connecting it with the liver. The latter theory has been put forward by Weisker and, while it may hold good for certain cases, the author believes that his own theory is far more satisfactory. [T. L. C.]

THE UNIVERSITY OF PENNSYLVANIA MEDICAL
BULLETIN.

February, 1902.

1. Snake Venom in Relation to Hemolysis, Bacteriolysis and Toxicity. SIMON FLEXNER and HIDEYO NOGUCHI.
2. A Case of Complete Absence of the Visual System in an Adult. WILLIAM G. SPILLER.
3. A Case of Tuberculosis of the Skin Following Accidental Inoculation with the Bovine Tubercle Bæcillus. MAZYCK P. RAVENEL.
4. An Extensive Case of Vitiligo. HENRY NORRIS.

1.—Flexner and Noguchi present a report on snake venom in relation to hemolysis, bacteriolysis and toxicity. The paper contains a short introductory note by S. Weir Mitchell who states that he indicated the direction along which this study has been made. It has been shown that the poison of venom is not simple, but that it consists of a complex of constituents of a proteid nature. The paper includes a consideration of the physiological effects of venom on the blood, on bacterial life and on tissues, in the light of the recent studies concerning various kinds of immunity. For the purpose of these studies dried venom of several kinds has been used; that of the rattlesnake, the water moccasin, the cobra and the copperhead. In a general introduction the writers consider hemolysis and bacteriolysis. They have studied the effect of venoms upon washed bloodcorpuscles as well as defibrinated blood, including venom agglutination and its hemolytic power as well as the effect of heat upon this hemolytic power, and

several kinds of animal blood from the dog, rabbit, guinea-pig, sheep, ox, pig and frog were tested. From their results they draw the following conclusions: (1) Venom contains several or many intermediate bodies; (2) these bodies show specific affinities for certain complements. In addition to this there is evidence that the many susceptible corpuscles contain besides specific haptophore groups for intermediary bodies, certain common haptophore groups which are shared perhaps by all vulnerable corpuscles. Inquiring into the question, are the hemolysins (erythroly-sins) identical with leukolysins? They state from their experiments: (1) Venom contains principles which are agglutinating and dissolving for white bloodcorpuscles; (2) the agglutinating principles may be identical both for white and red cells; (3) the dissolving principle for leukocytes is distinct from that for red cells; (4) in order that a solution of venomized leukocytes shall occur, a complement-containing fluid is required; (5) the several varieties of white cells of the rabbit's blood show different susceptibilities to the action of venom. A study of venom toxicity shows: (1) That the neurotoxic and hemolytic principles are physiologically distinct; (2) that while the chief toxic constituent unites with the nerve cells in multiple minimal lethal doses, from which the neurotoxic principle has been removed, a quantity of hemolysin may be obtained sufficient to bring about fatal intoxication. Their conclusions on the effects of venom on bactericidal properties of blood serum are: (1) All venoms, when used in suitable quantities, destroy the bactericidal properties of many normal blood-serums; (2) the manner of this destruction consists in the fixation of the serum complements by the venoms; (3) venoms have no action on the intermediary bodies of serum; (4) if the venom is incapable of uniting with the serum-complement, then the original bactericidal properties remain unaffected by the presence of the venom. These investigators have had the opportunity of testing Calmette's antivenene which they have found neutralizes venom and removes both the hemolytic and the antibacteriolytic actions. [T. L. C.]

2.—Spiller reports a case of complete absence of the visual system in an adult. The patient was 22 years of age, although he had the appearance of a child of about 12. The palpebral fissure of each eye was very small and the orbits contained only a small amount of what appeared to be fibrous connective tissue. Nothing resembling an eyeball could be found. Optic foramina did not exist. There was no trace of optic nerves, chiasm or optic tracts. The boy was an idiot, absolutely helpless; he could say "mamma" but nothing more. He was passionately fond of music. Spiller concludes that this case shows: (1) The chief "primary" optic center is the external geniculate body. (2) The pulvinar of the optic thalamus is also an important "primary" optic center. (3) The anterior colliculus of the quadrigeminal body in man has an unimportant relation to vision. (4) The hypothalamic body, the habenula, the internal geniculate body probably are not part of the visual system. (5) The cortex of the calcarine fissure may contain nearly the normal number of cell bodies, even though the visual system may be undeveloped. (6) The nerves to the ocular muscles and their nuclei may be developed, even though the visual system is absent. (7) Congenital spastic paraplegia may be the result of deficient formation as regards number or size, of the neurons of the central motor system, even though such a deficiency may be difficult to detect by the microscope. [T. L. C.]

3.—Ravenel reports a case of tuberculosis of the skin following accidental inoculation with the bovine tubercle bacillus. The patient was slightly wounded on the flexor surface of his wrist while performing an autopsy on 2 cows which were the subjects of experimental tuberculosis. Four weeks afterwards the scar became red, prominent and sensitive. A tuberculous nodule developed which was excised. Two guinea-pigs were inoculated with a portion of

the growth, both of which developed generalized tuberculosis. The notable features of this case were the rapidity of the growth of the nodules (about 3 weeks), indicating marked virulence of the infecting organism and the large number of giant-cells and tubercle bacilli seen in the sections. Up to the time of writing there had been no return of the growth. [T. L. C.]

4.—Norris gives a résumé of the literature of vitiligo and reports an extensive case occurring in a colored man, 56 years old. When he was 18 years of age, he noticed his first small spot of vitiligo which progressed until at the present time both feet and legs are entirely white up to the junction of the body. There are numerous patches on his chest, back and face. These areas do not sunburn and are free from hair except on the face. At no time have there been any subjective symptoms. Norris mentions constant exposure to the sun as a possible etiological factor. [T. L. C.]

ANNALS OF SURGERY.

April, 1902.

1. An Experimental and Clinical Research on the Temporary Closure of the Carotid Arteries. G. CRILE.
2. Stereoscopic Radiography A. B. JOHNSON.
3. Prostatectomy by the Perineal Route. P. SYMS.
4. Intestinal Obstruction from Meckel's Diverticulum. A. R. HALSTEAD.
5. Meckel's Diverticulum Patent at the Navel. J. C. HUBBARD.
6. Hernia of Meckel's Diverticulum. R. E. WEBSTER.
7. Bone Cysts. A Case in which the Humerus was Involved, with the X-Ray and Microscopical Findings. E. R. CORSON.

1.—Crile calls attention to the great danger of hemorrhage in operations on the head and neck and to the enormous amount of time consumed in controlling the bleeding. The danger is not only immediate, but there is always, in certain cases, the fear that inspired blood will cause a late pneumonia. In order to obviate these dangers, Crile practises temporary closure of the carotid arteries. As the result of experiments on dogs, he found that a properly adjusted clamp could be left in position, closing the artery from 24 to 48 hours, without serious injury to the arterial walls. Clotting was not observed, the circulation was re-established and no emboli or thrombi were formed in the brain post mortem. The clamp employed is so constructed that the blades are adjusted by means of a set screw. One blade is longer than the other and has a turned up end in order to prevent the escape of the artery. The blades are parallel to each other when approximated and are covered with pieces of rubber tubing. Twenty minutes previous to operations, in which the pneumogastric or its superior laryngeal branch is likely to be involved, 1/100 grain of atropine is administered hypodermically in order to prevent inhibitory action of the heart. The carotid artery is closed with the clamp, using only sufficient pressure to approximate but not compress the walls of the artery. The control of the arterial hemorrhage is absolute except in such vessels as receive collateral supply from the vertebrals. Crile has carried out this procedure in 18 patients during various operations on the head and neck. Both common carotids were closed in 10, one common carotid in 5, and one external carotid in 3 cases. In all there were 28 closures of individual vessels. The ages of the patients ranged from 7 months to 69 years. There were no deaths attributable to the temporary closure of the arteries. In every instance the circulation was immediately resumed and there were no late effects on the walls of the artery, upon the circulation in the branches or on the cerebrum. Less anesthetic was necessary with closed arteries, especially when the common carotids were occluded. In the latter case there may be embarrassed respiration. Wholly or partially releasing one or both carotids gave immediate assistance to respiration. [F. T. S.]

2.—Johnson describes his technique for the production of stereoscopic radiographs. Two pictures are taken upon two separate plates from two points of view separated by a distance equal to the distance between the visual axis of the eyes, the points of view being in a plane parallel with the surface upon which the shadows are projected, *i. e.*: the

plane of the photographic plate, the distance in this case being about $2\frac{1}{2}$ inches, and the radiographs are then inspected through a stereoscope, the 2 images combining to form a single picture. By this method a bullet may be seen in its relation to the bones and surrounding soft parts with sufficient clearness to cut down upon it without further calculation. The principle of the stereoscope is as follows: Two rectangular plane mirrors are fixed upon a wooden frame in such a manner that their surfaces stand at an angle of 90° to one another, the edges being in contact. If the observer places his eyes one on either side of the apex of the angle made by the mirrors, and if stereoscopic pictures be placed one opposite each mirror, the surface of the picture making an angle of 45° with the plane of the mirrors, a reflected image of the right-hand picture will be seen with the right eye and a reflected image of the left-hand image will be seen with the left eye; the brain combines the two images into a single picture in relief. Johnson describes a device which permits the X-ray tube to be moved a measured distance in a horizontal or vertical plane, so that the 2 pictures may be taken from separate points of view in the same plane distant from one another $2\frac{1}{2}$ inches, equivalent nearly to the distance between the pupils of the 2 eyes, and a device which permits the removal of the photographic plate from beneath the patient with the substitution of a second plate without moving the patient. He also describes a box into which the mirrors are placed, with an aperture opposite the angle of the mirrors through which the observer looks. The plate-holders are so constructed that they may be moved from side to side, up and down, and forward and backward, so that any degree of adjustment may be obtained. The box is illuminated by electric light bulbs placed opposite to the plate holders. When using the apparatus, the mirrors are moved from or toward the eyes, until the two images unite and form a single picture. [F. T. S.]

3.—See *Philadelphia Medical Journal*, Vol. IX, No. 9, p. 44.

7.—Corson reports a case of **bone cyst** occurring in the humerus of a woman, aged 21 years, who had suffered for 2 years with pain in the affected extremity; one year before coming under observation, the bone had been fractured as the result of a slight force. Although the X-ray showed the extent of disease, the exact diagnosis could only be made at the time of operation, which consisted in incision and drainage. The microscopical diagnosis was a bone cyst, the result of an old osteitis with bone atrophy. From a study of the literature, Corson concludes that bone cysts are malignant, inflammatory, trophic or congenital. [F. T. S.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

February 6, 1902.

1. The Poisonous Effects of Sodium Sulphuret as used in Preserving Meat. H. KIONKA.
2. Concerning Myelogenous Leukemia. H. HIRSCHFELD and E. TOBIAS.
3. A Contribution concerning the Diagnosis of Tertiary Lues of the Pharynx.
4. The Etiological Importance of Trauma. F. RITTER.

1.—It has been customary for about 15 years to add some preserving salt to meat. Kionka has previously written of the poisonous effects of the salt which, he found, was added to meat, and has determined that it contains sodium sulphuret. The changes which he then observed in animals were hemorrhages, alterations of the vessels and inflammation of the lungs and kidneys; these changes are seen in the use of pure sodium sulphuret. He now describes a series of observations which he has made in animals, using pure sodium sulphuret and a preserving salt obtained from a large meat-preserving factory in Breslau. The animals died after a certain time, without showing any characteristic clinical symptoms; but post mortem the changes previously mentioned were found. The conclusion reached is that these changes are directly due to the preserving salt, and that this salt should never be used for the preservation of foods. To be sure, the observations on human beings are practically negative, as yet; but the danger must be recognized to exist. [D. L. E.]

2.—The authors describe 2 cases which they have studied with considerable care, presenting a long series of differential counts in both cases. The first occurred in a boy of 19. A blood count showed 35 per cent.

hemoglobin, 1,157,500 reds, and 500,000 whites. It was of interest that the patient had had repeated severe epistaxis. He was discharged at his own request, without much change in his condition having occurred. The percentage relation of the various leukocytes showed marked variations in the course of the disease, particularly in the large and small mononuclears, the mast cells and the eosinophiles. All these cells, with the exception of the eosinophiles, were at times absent. As to the myelocytes, the author notes that these showed the most remarkable variations in the granules. Sometimes they took a distinctly blue tinge with a triacid or methylene-blue eosin mixture. The polymorphonuclear cells at times also showed granules which took a distinctly blue tinge, and the eosinophile cells showed great variations in the staining of the granules, some cells containing both red and blue granules and some containing only deep blue ones. The second case was in a man of 31. His leukocytes numbered from 425,000 down to 228,000. On the whole, they tended to decrease, the chief interest in this fact being that the leukemia was finally associated with an acute miliary tuberculosis. The differential counts in this case also showed marked variations, and the leukocytes showed even a more marked polymorphism than in the first case. The differences in size were extreme, some cells being of almost giant size. Some of the polymorphonuclear cells contained no granules. The authors think that we must admit, from this and previous reports, that these cells are occasionally unable to produce the neutrophilic substance. The neutrophile and eosinophile granules showed changes in staining similar to those mentioned in the first case. Some cells were observed that were polymorphonuclear and very small, containing few granules; and the granules stained from deep red to bluish violet. Some of these cells were evidently mast cells, and the authors think that these mast cells may contain other than the typical granules. They give a brief discussion of the other cases—10 in number—of leukemia associated with tuberculosis. The tuberculosis may arise in the course of the disease, or a latent tuberculosis may be set aflame by leukemia. In the second patient, a tumor of the ear was observed, which, on microscopical examination, proved to exhibit leukemic infiltration in a fibro-angioma. The authors looked with care in both cases for Löwit's parasites. They saw bodies similar to those that he described, but do not believe that they were parasites; they think that they were products of degeneration. They note that the number of these bodies went hand in hand with that of the mast cells. They injected some animals with the juice of the spleen, lymphglands and bone marrow, but no results excepting embolism and general sepsis were obtained. [D. L. E.]

3.—The author describes a case of isolated syphilis of the nasopharynx and a case of syphilitic tumor of the tonsil. He notes the difficulties in diagnosis and discusses the diagnosis of these two conditions. [D. L. E.]

4.—Ritter insists upon the fact that in a great many cases of the supposed results of trauma, the condition which ultimately arises was probably present before the trauma occurred, and that it is essential to get a careful previous history before deciding that the trauma was the cause of the condition. As to the statement that hemorrhages into the tissues produce a favorable culture medium of bacteria, particularly for tubercle bacilli, he states that he considers the contrary to be the case, for the living blood has a marked bactericidal action. As to the production of tumors through trauma, he states that there is nothing to indicate anything more than that this is possible, or, perhaps, probable. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

February 4, 1902. (No. 5.)

1. Away with Taxis. O. LANZ.
2. Renal Contusions or Renal Inflammation? A Contribution to the Knowledge of Subcutaneous Injuries of the Kidney. G. EDLEFSEN.
3. A Contribution to the Knowledge of Injuries Produced by High Tension Electric Currents. F. JESSEN.
4. The Treatment of Pulmonary Hemorrhages with Subcutaneous Injections of Gelatine. L. THIEME.
5. A Case of the Entry of Air into the Veins of the Puerperal Uterus. F. SENGLER.
6. Treatment of Chronic Dry Catarrh of the Middle Ear by the Pneumatic Chamber. HAMM.

7. The Separation of Hemoglobin from Bloodcorpuscles that have been Hardened in Corrosive Sublimate. H. SACHS.
8. The Oblique Low Position of the Pelvis in Operations upon the Biliary Ducts. W. RUEHL.
9. Myelopathic Albumosuria. T. R. BRADSHAW.
10. Report of the Royal Surgical University Polyclinic of Munich in the Year 1901. F. KLAUSSNER.
11. Orthodiagraphic Investigations upon the Heart. Reply to the Remarks of Professor Dr. Moritz, in No. 1 of this Weekly. KARFKUNKEL.
12. Professor Dr. Carl von Liebermeister. ABEGG.

1.—Lanz, in discussing the treatment of incarcerated herniæ, argues that the physician may be convinced that in all cases before his arrival all methods of manipulation known to the patient have been employed in the effort to reduce it, no matter what statements the patient may make. He reports 11 cases in 4 of which these efforts at manual reduction were successful, and all of which died, 2 of them in spite of abdominal incision. The cause of death in 3 cases was gangrene of the intestines, the gangrenous mass having been returned to the intestine. In the former case it was due to re-position *en masse* without reduction of the hernia. In the remaining cases taxis was unsuccessful and recovery took place. The seventh patient died as a result of extensive injury produced by the manipulations of a friend. In this case the entire hernial mass had become gangrenous, and, in spite of resection, the patient died. Of the 6 cases that recovered, 5 showed no complications; the sixth, a man of 65, had had an inguinal hernia for several years. This suddenly became larger and incarcerated, and the physician in attendance made several unsuccessful attempts to reduce it by taxis. Thirty-six hours after incarceration the operation took place. When the sac was opened, an apparently gangrenous loop of intestine was observed, but the condition of the patient was so bad that resection was not attempted. The wound was packed with gauze and allowed to remain open. The patient recovered without difficulty. Lanz believes that it is not sufficiently well known that massive reduction, that is to say, reduction of the hernia in the sac, may be accomplished with very little force. He reports a case of a physician who had had left inguinal hernia which had frequently been replaced without effort. On the last occasion, it was stated that no more force than usual had been employed, nevertheless, he developed symptoms of intestinal obstruction, there was ascites, and an abdominal incision showed the presence of serous peritonitis. A small tumor, which proved to be a reposition *en masse* of the hernia, was found. The constricting band was cut, and the patient recovered. A somewhat similar case occurred in a man of 50, who developed pain in the right iliac region, giving rise to the suspicion of appendicitis. There was obstinate intestinal obstruction, with persistent vomiting, that finally became fecal in character. The patient collapsed; the only history was that possibly a right inguinal hernia had existed that the patient had himself replaced. He was profoundly collapsed and refused to respond to stimuli; an operation was therefore performed as a last resort. A massive reposition was found, the stricture involving the first portion of the jejunum. The constricted portion of the intestine was gangrenous, and there was evidence of perforation into the sac. A temporary anastomosis was performed and the incision closed, but the patient died. A somewhat similar case occurred in a woman, 52 years of age, who, for 2 years, had had a right femoral hernia. This became gangrenous, and was apparently reduced by taxis, but the patient still had severe pain in the abdomen and persistent vomiting, which became fecal. She finally became seriously ill, an operation was performed, and a dark loop of intestine found with the constricting band high in the abdomen. This was incised, the sac extirpated and the patient subsequently recovered. These cases have led Lanz to believe that, in view of the certainty of modern surgical methods, taxis, which is certainly not unassociated with danger, should be entirely discarded. [J. S.]

2.—The patient, a vigorous peasant, 30 years of age, was struck upon the breast by a falling barrel of about 40 to 50 kilo. in weight. It is possible that he was thrust by the blow against a small railing, but this is not certain. His

chest was protected by a heavy leather apron and the blow was not severe enough to cause him to lose his balance. He had slight pain in the chest, a little bloody expectoration, but continued his work until 2 days later, when the pain became so severe that he was obliged to stop. During this period, however, he had had frequent desire to micturate and the urine was usually bloody. When examined on the evening of the day he stopped work, his appearance was yellowish white. There was no evidence of injury upon the skin, but the lower portion of the chest and the anterior surface of the abdomen were edematous and the feet were swollen. Later edema of the scrotum was also observed. The lungs and pleura were entirely normal; the heart showed only increased activity; the urine contained a large quantity of albumin but apparently no blood. The condition grew gradually worse, then improved; the albumin disappeared from the urine, so that 3 months later the patient was able to recommence work. Later he acquired some mild infection, probably influenza, and was obliged to return to bed, although on this occasion no albumin was found in the urine. The patient finally presented himself for examination, with special reference to the causation of the nephritis by the injury. The muscles were found to be inadequately developed, the urine of high specific gravity, but containing neither albumin nor sugar. In regard to the determination of the question of the relation of the injury to the nephritis, it must be said that the possibility exists. That the absence of suggillation in the lumbar region does not exclude injury to the kidney; neither does the fact that the patient was able to work for 2 days, because as Kössler has shown, pain is not always severe in rupture of the kidney. Neither is hematuria an invariable sign, although it is doubtful if a considerable degree of albuminuria could occur unless hematuria had existed. Contusion of the kidney may occur without direct violence if the kidney is thrust with sufficient force against the lumbar spine or the twelfth rib, perhaps as a result of violent reflex contraction of the abdominal wall and the diaphragm. Lucas has reported the case of a man, 66 years of age, who, in attempting to catch a falling sack, had immediately severe pain in the left kidney, and in a short time evacuated some bloody urine. It is probable that in this case, if contusion of the kidney did occur, it involved both on account of the diminished quantity of urine secreted, although a reflex anuria certainly existed. [J. S.]

3.—Jessen reports a case of a man, 46 years of age, in good health, who received a current of electricity from the wire of a street railway, the amount of the current being approximately 500 volts. The current passed through his body for several minutes, and afterwards he felt numb. He remained in bed for 2 days and then returned to work, but complained of headache, vertigo, twitching and numbness of the right arm. He was admitted to a hospital, the pupils were found dilated and unequal; there was paresis of the left facial; increased tendon reflexes and occasional attacks in which the patient fell without losing consciousness. He was given mixed treatment and discharged cured. The headaches and pains in the breast persisted and he was again admitted to the hospital. The reflexes were exaggerated, but there was neither Babinski's sign nor ankle clonus. From time to time he had attacks of vertigo, commencing with twitching in the right arm and followed by gnashing of his teeth and loud cries. There was no disturbance of sensation. He finally developed tremor of the hands and marked hyperesthesia of the abdominal skin. A diagnosis of traumatic hysteria was made, the patient advised to return to work, and this he soon found himself able to accomplish. [J. S.]

4.—Thieme reports 12 cases of hemoptysis treated with subcutaneous injections of gelatine. This was always injected into the thigh and did not produce pain. The solution was 2% in strength and slightly alkaline. After the injections, the swelling was rubbed with the thumb, and iodoform gauze saturated with acetic acid clay applied. In 2 cases, in which these precautions were not observed, necrosis of the skin occurred. No complications ensued. In 11 of the 12 patients the injections were followed by a febrile rise of the temperature, but this was rarely very high. One hundred cc. were injected in each case. [J. S.]

5.—Sengler reports the case of a woman, 42 years of age, who, at the birth of her sixth child, had difficulty in

expelling the placenta. The uterus did not contract, and, therefore, manual separation of the placenta was attempted. This was accomplished with some difficulty, but, while an infusion of normal saline solution was being made, the patient suddenly collapsed, and, in spite of vigorous stimulation, died in half an hour. As only a moderate quantity of blood had been lost, the cause of death was, at the time, obscure. At the autopsy, 22 hours later, the right ventricle was tympanitic on percussion, and contained a considerable quantity of frothy fluid. A diagnosis of death in consequence of air embolism was therefore made. The possibility of gas formation after death cannot, of course, be excluded, but it is remarkable that gas was only found in the veins leading from the uterus to the heart. Thrombosis can be excluded because it rarely occurs after death. The time of the entrance of blood is difficult to determine. It could have occurred during the application of Credé's method, particularly during the intervals of compression, or it may, and probably did, enter during the manual separation of the placenta. It is possible also that it was introduced during the lysol douche given after the placenta was extracted, or during the movement of the patient from the operating table to the bed. Sengler concludes that, in all obstetrical operations, the patient should be upon the back with the body slightly raised, and it is important to have good contraction of the uterus, and that the performance of manual separation of the placenta or combined version in placenta previa should be accompanied by continuous irrigation with a normal salt solution. [J. S.]

6.—Hamm, discussing the difficulties of treating dry catarrh of the middle ear, believes that most of the methods at present in vogue are defective, in that they do not produce a sufficient mechanical effect upon the tympanic cavity. He believes that the objects to be attained are: Stronger pressure upon the membrane; prolongation of pressure upon the membrane, increasing and decreasing slowly. An instrument to accomplish these is the pneumatic chamber. He reports 8 cases in which he employed this with excellent results. He admits that it is not a universal cure-all, because of his 8 cases, 5 did not remain improved. It is interesting to note that many of the cases had improved hearing while in the cabinet, although the normal ear usually does not hear as well. The number of treatments required is from 25 to 40, the pressure varying from .5 to 1.5 atmospheres. In the most favorable cases improvement continues to progress after the treatment has ceased. [J. S.]

7.—Sachs, in view of the communication of Matther, has repeated his experiments, and found that not only fresh rabbit serum, but also that which has been rendered inactive by heating for half an hour at 56° C., or even serum that had been diluted and cooked for an hour, had the capacity of dissolving red bloodcells that had been fixed in corrosive sublimate. He therefore concludes that there can be no such thing as a toxin action upon these fixed bloodcells. It is probable that in fixed bloodcorpuscles the hemoglobin does not pass out of the cells, because it is mechanically held in them by the corrosive sublimate. As soon as the serum is added, this mechanical action ceases. The experiments with normal blood were invariably negative. [J. S.]

8.—Rühl calls attention to a great advantage in operations upon the biliary tracts of having the pelvis low. The patient, a woman of 38, had had an attack of gall-stone colic 19 years previously, and from that time repeated attacks once or twice a year. An operation was performed, and a number of stones, some of them large, were removed. The patient improved considerably. However, a permanent biliary fistula ensued and her general condition grew worse, all the symptoms of complete occlusion of the common duct existing. A second operation was therefore performed. During this operation a rupture of the bowel occurred which was immediately repaired, and as the dissection was carried toward the common duct, a severe hemorrhage suddenly occurred. It was impossible to check this, either by packing or by attempts to catch the vessels. The pelvis was, therefore, placed low, the gauze packing again removed, and the bleeding vessel then could be seen, because the blood flowed downward. It was probably the portal vein, and the tear, about 4 mm. long, was immediately repaired. A stone was found in the

common duct, which was immediately removed, the patient recovering satisfactorily. He believes that the advantages of this position are that it is easier to check the hemorrhage, and the operation field is more accessible. [J. S.]

9.—Bradshaw calls attention to the ignorance of the literature displayed in the article of Jochmann and Schumm in regard to the occurrence of albumosuria, particularly with reference to English and American publications on this subject. He expresses his opinion that the case reported by these authors was one of multiple myeloma, and not a case of true osteomalacia. [J. S.]

10.—Klaussner gives the statistics of the Surgical University Polyclinic in Munich, in the year 1901. There were 15,046 cases treated, and 200 cases carried over from the previous year. The total was about 600 less than in the year 1900. The number of visits is usually greater in the first 4 months than in any of the others. The majority were men, and the rest were children and women. A large proportion of the patients had diseases of the teeth and ear, respectively 2,760 and 2,943. There were 260 cases of mechanical injury, and the others represented various forms of surgical trouble. [J. S.]

11.—Karfkunkel insists that his article upon the relation of the apex to the chest wall was read 4 weeks earlier than that of Moritz. He recognizes the generosity with which Moritz showed him the method, but insists that he had the right to express the results of his own experiments with it, and that he has in all respects shown Professor Moritz the proper recognition. Moritz replies that his instructions to Karfkunkel were of considerable value; that he told Karfkunkel the directions in which he was working, and that he was surprised to find an article anticipating many of his ideas published by that author. He insists that a certain amount of credit was due him, and that this credit was omitted. [J. S.]

12.—Carl von Liebermeister was born in 1833, in Rondorf. He studied under Virchow, Kölliker, Bamberger, Scanzoni and especially under Niemeyer. He also became intimately acquainted with von Ziemssen. In 1865 he became Ordinary Professor of Internal Medicine, at Basle. In 1871 he was called to Tübingen as successor of Niemeyer, at the early age of 38 years, and remained there until his death, 30 years later. During this period he was called to the Universities of Leipsic and Bonn, but elected to remain in Tübingen. Among his most important works is: A Hand-book of the Pathology and Therapy of Fever, in 1875, a subject that interested him all his life, for his very latest work was "The Diagnosis and Prognosis of Abdominal Typhoid." Altogether, his publications amount to about 90. He belonged to one of the most fruitful of the German medical profession. His personal character was such as to endear him to all his friends. [J. S.]

ZEITSCHRIFT FUER HEILKUNDE.

February, 1902. (Vol. XXIII. No. 2.)

1. Glycosuria and Alimentary Glycosuria in the Insane. EMIL RAIMANN.
2. The Urine of the Human Fetus. THEODOR PANZER.
3. Agrammatism Following a Cerebral Lesion. ALOIS PICK.
4. The Treatment of Tetanus. THEODOR PFEIFFER.
5. Acetonuria in Typhoid Fever. RICHARD BERNERT.

2.—Panzer examined the urine of a new-born infant with atresia of the bladder and anus, absence of the right kidney and ureter and the urethra. A tiny communication existed between the bladder and the large intestine. The urine was amber in color, neutral in reaction, with a specific gravity of 1008. The sediment which collected on standing consisted of epithelial cells, leukocytes and crystals of calcium carbonate. A trace of albumin was found, but no sugar, acetone or indican. The urine gave 0.36 gm. of urea (0.16 gm. of nitrogen), by the Kjeldahl method, and 0.21 gm. of uric acid (0.07 gm. of nitrogen) by the Salkowski method. Creatinine was totally absent, while a large amount of allantoin was found. [M. O.]

3.—Pick reports a case of agrammatism in a woman of 41, with apoplexy after her ninth labor, followed by convulsions, speech disturbances and a lowering of in-

telle. Confusion and excitement existed for some time. The aggrammatism is well described. She grew worse, contracted pneumonia and died. The autopsy showed edema of the internal meninges over the anterior part of the left hemisphere, the ends of the middle and lower frontal convolutions and the left temporal lobe all having decreased in size. Microscopically the diagnosis was made of atrophy of Broca's convolution on the left side. This confirms Pick's opinion that aphasia is always due to a lesion localized to the speech centers. [M. O.]

4.—But few cases of tetanus have as yet been treated by tetanus antitoxin. The statistics so far do not show a marked decrease in the death-rate. Antitoxin has in most cases been given subcutaneously, the intravenous or subdural methods having rarely been used. The spinal subarachnoidal method seems to offer better results, though it, too, has been but little employed. Pfeiffer has treated 14 cases, with 50% of recoveries. Both the Behring and Tizzoni antitoxins were used. A table of the cases, with the detailed case-histories, follows. [M. O.]

5.—Bernert has found 11 case-histories of patients with acetonuria in typhoid fever, out of 94 examined. A number of experiments follow, to show the effect of different foods upon the excretion of acetone in the urine. His conclusions are that acetonuria, which may appear during the fever, may persist long afterward, generally from too little nourishment; that the intensity of this acetonuria depends somewhat upon the ingestion of different foods, upon the excretion of acetone in the urine, acetonuria is not found in the majority of cases of under-feeding, and that acetonuria rarely occurs in typhoid fever. The appearance of acetone in the urine speaks rather for the diagnosis of auto-intoxication than of typhoid fever.

[M. O.]

MEDICINSKOIE OBOSRENIE.

Vol. LVII, No. 3.

1. On Subcutaneous Injuries to the Kidneys.

I. D. SARITCHEFF.

2. On the Etiology of Aortic Aneurysm. E. SEGALOFF.

3. The Treatment of Nervous Diseases at the Koulianitski Liman in Odessa. I. K. CHMIELIEVSKI.

4. On the New Method of Auscultation of the Lungs.

G. E. VLADIMIROFF.

5. On Disinfection with Formaldehyde According to the Breslau Method. M. B. KOTSIN.

1.—To the 18 cases of subcutaneous injury to the kidneys reported by Russian surgeons since 1886, Saritcheff adds 5 observed by himself for the past 3 years. In one of the 5 cases, the injury followed a fight, while in the other 4, the cause was a fall from a greater or lesser height. It was observed that the renal trauma was not in proportion to the severity of the fall. A severe fall was followed by a slight renal injury and *vice versa*. In no case were there any subcutaneous hemorrhages, despite the severe injury to the kidneys. Shock was observed only in 2 of the cases. The characteristic symptoms were pain in the region of the injured kidney and hematuria. Rigidity of the muscles, considered by some authors as a characteristic and frequent symptom, was not observed. For the diagnosis of subcutaneous renal trauma, the author relies on cystoscopy, which, in connection with localized pain and hematuria, renders the diagnosis fairly accurate. In the further course of the disease, the development of secondary anemia indicates injury to the bloodvessels, while the increasing swelling points to the formation of a pseudohydronephrosis or hematoma. A comparatively simple and harmless incision will serve as the best means of determining the location and extent of the injury. As to prognosis, it depends on the general condition of the patient, various complications and the course of the disease. Generally, such injuries, even when complicated with fracture of the ribs, terminate favorably on expectant treatment. The following are the indications for operative intervention: Profuse hemorrhage; exhaustion and weakening of the pulse, progressive temperature elevation and increase of local swelling. When removal of the kidney is

found necessary, a portion of the injured organ should be left intact until compensatory secretion of the sound kidney is established. The following expectant treatment was employed by the author in 3 of the cases: Ice bag, rest, proper diet, infusion of ergot, Haller's sulphuric acid mixture, codeine and morphine. [A. R.]

2.—Segaloff reviews the literature on aortic aneurysm, with special reference to the etiology, and reports 30 cases, 25 in men and 5 in women, which came under his observation. From an analysis of these cases he concludes that syphilis plays an important role in the etiology of aortic aneurysm, especially in the young. In the old, arteriosclerosis is an important etiological factor, although even here syphilis cannot be excluded, it being in itself a prolific cause of arteriosclerosis. [A. R.]

4.—Vladimiroff describes the method of auscultation with a double stethoscope, one for each ear, suggested by Bourget. He was enabled by extensive experience to verify the claims made for this new method, by means of which the normal as well as the abnormal sounds reach the ears simultaneously. However, some experience is necessary before the finer distinctions can be appreciated. The suggestion is made that the stethoscopes be crossed, i. e., the left stethoscope be placed on the right side of the chest and *vice versa*. [A. R.]

5.—Kotsin reviews some of the more important methods of formaldehyde disinfection. From a review of the literature and his own experiments, he arrives at the conclusion that for superficial disinfection of rooms and furnishings, except books and bedding, disinfection by the Breslau method is all-sufficient. Good results will be obtained by generating 5 gm. of formaldehyde for each cubic meter of space for 3½ hours. The gas may be generated either by steam or spray. [A. R.]

NORDISKT MEDICINSKT ARKIV.

1902. (Afd. 1, No. 1.)

1. A Case of Ectopic Gestation. J. SANDBERG.
2. Diagnosis and Treatment of Subcutaneous Rupture of the Intestine from Abdominal Contusion.

G. W. TORNQVIST.

3. The Mechanism of Intestinal Occlusion Due to an Adherent Meckel's Diverticulum. G. EKEHORN.

4. The Relation Between Diphtheria and Ear Disease.

EMIL STANGENBERG.

1.—Sandberg reports a case of ectopic pregnancy in a woman of 29, who recovered after laparotomy with the removal of the gestation sac found on the broad ligament. The death of the fetus, about 6 months old, was diagnosed before operating. She recovered rapidly. No ovary was found on the left side. Similar cases from the literature are cited. [M. O.]

2.—The poor results in abdominal surgery are due to the difficulty in making an early diagnosis of the existing condition. During 3 years 3 cases of ruptured intestines from abdominal contusions were treated by operative interference, 2 of them recovering after laparotomy, the first one dying in spite of operation. The meager histories of 2 other fatal cases follow, in only one of which was operation performed. The cause of subcutaneous rupture is external violence against the abdominal wall. Rupture follows by crushing the intestines, by bursting of the intestines, or by tearing from traction of the intestine. The commonest cause is direct crushing of the intestine by the force exerted. There may be but a small perforation or a large rupture. The symptoms of subcutaneous rupture of the intestine are increased pulse frequency without intra-peritoneal symptoms, poor general condition, increasing dulness over the area injured, abdominal rigidity, pain, tenderness, and vomiting, the vomitus being blood-streaked. The prognosis without operation is bad. Opium should never be given. Operation is indicated at once, with care not to permit infection of the unaffected peritoneum. Drainage is generally necessary. [M. O.]

3.—In conclusion, Ekehorn appends the 111 cases of intestinal occlusion due to an adherent Meckel's diverticulum, with detailed case-histories. [M. O.]

4.—Many cases of ear disease follow diphtheria. After reviewing the literature of the subject, Stangenberg reports 243 cases of ear disease found among 1000 cases of diphtheria examined. He believes that these ear conditions were the direct result of diphtheria. Most of them were in children under 5, next in those under 10 years of age. Otalgia was noted in 16 cases, while Eustachian salpingitis occurred in 190, being double in 163. In 115 cases it occurred in the first week of diphtheria. Mild otitis media was observed in 65 cases, 28 of them probably following salpingitis. In only 25 were both ears affected. Most of these appeared in the third week. Infection probably arose from the nasopharynx, then spread to the Eustachian tube and the middle ear. Ear complications are as frequent in mild as in severe diphtheria. The 243 case-histories follow. [M. O.]

JOURNAL DES PRATICIENS.

March 8, 1902. (16me. Année, No. 10.)

1. Pulmonary Sclerosis, Cardiac Symphysis, and Sinistocardia. CHAUFFARD.

2. Neglected Shoulder Presentations. O. MACE.

3. Diabetic Pseudocoma. CHARLES FIESSINGER.

1.—Chauffard presented a man of 21, with pulmonary sclerosis following bronchopneumonia at 10 years of age. No rales and no tubercle bacilli were discovered. There was an area of induration in the apex of the left lung. At the apex of the heart, which was greatly displaced toward the left, there was marked systolic retraction. The heart lay 5 or 6 cm. left of the left edge of the sternum, but was not hypertrophied. Kussmaul's **pulsus paradoxus** was present. As contraction occurred in the sclerosed area, the heart was drawn to the left by the adhesions. Good hygiene, opium, digitalis and counterirritation are being employed. [M. O.]

2.—When shoulder presentations occur, version should be attempted before 8½ months, or at the beginning of labor. When the fetus is small, this is not difficult. But evisceration may become necessary to hasten delivery, or the shoulder may already be impacted when the physician is called, absolutely preventing delivery. The condition is found by palpation with the exploring index finger. A full description of the possible procedures in such cases follows. [M. O.]

3.—Fiessinger reports the case of a woman of 50, who became comatose suddenly, in whose urine albumin and sugar were found. A diagnosis of **diabetic coma** was made. Yet, in 4 days all glycosuria had disappeared, and she recovered. Three months later a second attack occurred, with aphasia. This time albumin, but no sugar, was found in the urine. She died suddenly a year afterward of **cerebral hemorrhage**. In the first attack a change of diet probably caused intoxication, with glycosuria; the second attack was slight, and the third was a severe cerebral hemorrhage. The diagnosis of diabetic coma should not be too hastily made. [M. O.]

March 15, 1902. (16me. Année, No. 11.)

1. Vertebral Rheumatism and Pott's Disease. MERY.

2. The Thoracic Forms of Influenza. LABBE.

1.—Acute articular rheumatism frequently attacks the vertebral column in children. The **diagnosis between vertebral rheumatism and vertebral caries** in its early stages is exceedingly difficult. Any other articular involvement points to rheumatism. Rarely this becomes spinal, with some symptoms of meningitis, myelitis, etc. This condition improves at once upon salicylates. In Pott's disease there may be no tenderness upon pressure over the vertebra affected, no pain, no deformity, no abscess. But there is marked vertebral rigidity, and the vertebral column does not bend, the vertebrae seeming "soldered" together. In these cases a plaster cast and fresh air at the seashore, good nourishment, etc., are indicated. Yet the differential diagnosis remains very difficult. [M. O.]

2.—Children and old persons are predisposed to the **thoracic forms of influenza**, as are individuals in whom the throat or lungs are already affected. Influenza begins with coryza; pharyngitis develops, with perhaps tonsillitis or laryngitis, but with bronchitis in every case. Capillary bronchitis, congestion, and bronchopneumonia may result, or mixed infection, splenopneumonia, lobar pneumonia or pleurisy. Symptoms persist for a long time, with or without expectoration. Sometimes this condition resembles phthisis. But influenza always causes great depression. Bronchoplegia may occur, with dyspnea or even asphyxia. Relapses are common and

convalescence is tedious, while death frequently results. Rarely peripneumonia is found. The diagnosis is not at all difficult, as a rule, and the prognosis is unfavorable on account of possible complications. Pfeiffer's bacillus is generally found when the disease occurs in epidemic form. In the treatment quinine, strychnine, caffeine, sparteine, digitalis, etc., are indicated. Not only is prophylaxis important, but the disinfection of the mucous cavities is advised to prevent secondary infection. [M. O.]

LA PRESSE MEDICALE.

March 5, 1902. (No. 19.)

1. The Teaching of Operative Medicine in Some American Universities. HENRI HARTMANN.

2. Angina Caused by Friedländer's Pneumobacillus.

ANDRE DESCOS.

3. Lumbar Puncture in Intrarachidian Hemorrhage.

THEODORE TUFFIER and G. MILIAN.

4. An Undetermined Ulcerative Lesion of the Tongue.

E. LENGLET.

1.—Hartmann relates his impressions of the teaching of surgical anatomy in America. [M. O.]

2.—In only 22 cases of **sore throat** have the **pneumobacilli of Friedländer** been found. Descos reports one more case, in a man of 38, with advanced phthisis, on whose pharynx and tonsils little gray points were noted, with dysphagia. Here pneumobacilli were found, which were cultivated and inoculated into guinea-pigs. Though tenacious, the condition is nevertheless benign. The patient died of phthisis 2 months later. [M. O.]

3.—After a full description of the necessary technique of **lumbar puncture in intrarachidian hemorrhage**, with diagrams to explain the details, Tuffier and Milian conclude that a bloody color to the cerebrospinal fluid is of value in the diagnosis of hemorrhage, especially with cerebral contusions, if attention be paid to the manner of the flow and coagulation of this fluid. A yellow color to the cerebrospinal fluid, without red bloodcorpuscles, is sometimes, but very exceptionally, the only sign of intrarachidian hemorrhage. [M. O.]

4.—When an **undetermined ulcerative lesion occurs upon the tongue** or in the mouth, a portion of the new growth should be removed and examined microscopically and bacteriologically. When this is impossible, calomel injections are advised. But it must not be forgotten that cancer as well as syphilis will improve upon this. Potassium iodide should only be given when cancer has been excluded. [M. O.]

March 8, 1902. (No. 20.)

1. A New Method of Clinical Exploration of the Digestive Tract. LEON VINCENT.

2. Lauder Brunton's Proposed Surgical Treatment of Mitral Stenosis. L. TOLLEMER.

1.—Sigaud began what he called **external exploration of the digestive tract** by inspection, palpation, and percussion. Inspection shows the shape of the abdomen; palpation shows the position of the intestines, peristalsis, and the mobility of the abdominal viscera; and percussion shows the position of the stomach and large intestine, meteorism, etc. From all this the physician obtains a definite clinical picture. The functions of the digestive tract produce an united reaction; when this is abnormal or exaggerated, the process of compensation becomes general throughout the body. When compensation develops in any localized spot, disease results. While symptoms are at first latent, they later become apparent. The great cause of any disturbance of the gastro-intestinal tract is the food ingested. Pure hygienic treatment is indicated. [M. O.]

2.—Lauder Brunton has experimented upon **operative interference for mitral stenosis** in cats, opening the left ventricle in diastole. It is marvelous how the heart continues beating during the operation. As a number of animals recovered, he believes that incision of the mitral valve by operation will soon be possible in the treatment of human beings with mitral stenosis. [M. O.]

March 12, 1902. (No. 21.)

1. The Opening Lecture in Therapeutics.

PROFESSOR GILBERT.

1.—In his opening lecture at the Hôtel Dieu, Paris, the newly appointed professor of **therapeutics**, Dr. Gilbert, reviews his subject in detail. The chair of therapeutics was established in 1823, and seven men have filled it before Dr. Gilbert; Alibert, Trousseau, Grisolle, Germain Sée, Gubler, Hayem and Landouzy. He said that therapeutics includes psychical, physical and chemical agents. He paid especial attention to the novelties in therapeutics, as they appeared in his review, for they marked the steps of progress. And he also spoke of those agents which had long been abandoned. He concludes by saying that medicine now gives the physician a scientific and moral satisfaction which formerly was lacking. [M. O.]

REVUE MENSUELLE DES MALADIES DE L'ENFANCE.

March, 1902. (T. XX, No. 3.)

1. Contribution to the Study of the Production of Medicated Milk. Iodine Milk. MARIO FLAMINI.

2. Acute Lymphocythemia with Hypertrophy of the Thymus in a Child, Aged Four Years. ROCAZ.

1.—Flamini has injected metallic iodine into lactating animals in order to determine the possibility of rendering the milk iodized. He used a solution composed of iodine, 2 gm.; potassium iodide, 6 gm.; water, 100 cc. He also used a 5% solution of iodine in oil. As a result of his experiments, he concluded that, when iodine is introduced into the organism by intramuscular injections of an oily solution, it is eliminated by the milk and the urine. The percentage of iodine in the milk is about $\frac{1}{2}$ of that eliminated in the urine. The quantity of iodine eliminated in the milk increases if the dose injected is increased. It also increases according to the degree of saturation of the animal. Consequently, it is necessary to saturate the animal in order to obtain a convenient quantity of iodine in the milk. The maximum quantity of iodine recovered from the milk after quite small doses gives rise to the belief that by increasing these doses it is possible to obtain considerable quantities of iodine in the milk, so that the substance can be utilized therapeutically for children. The intervals between injections may be regulated so that a constant percentage of iodine may be obtained in the milk each day. The iodine in the milk is found in part dissolved in the serum and in part in combination with albuminoid substances. But a part of the dissolved iodine is in organic combination. The quantity of iodine found in organic combination in the milk is more than $\frac{1}{2}$ the total quantity of iodine in that fluid. If, on the other hand, iodine is added directly to the milk, it is found entirely in the serum in inorganic combination. The prolonged administration of iodine in oily solution and by means of intramuscular injections produces no unfavorable change in the composition of the milk. The animal thus treated presents neither local nor general reaction and supports the medicament introduced perfectly. [J. M. S.]

2.—Rocaz reports the case of a boy, aged 4 years, who presented no family history bearing upon his illness. He was subject to slight attacks of angina; but he had never had diphtheria. He complained of sore throat and fever, for which he was given 10 cc. of antidiphtheritic serum. The patient had a temperature of between 39° and 40° C. (102.2° and 104° F.), he had diarrhea, bronchial rales and enlarged spleen. Serum diagnosis for typhoid fever was positive. Examination of the blood showed 2,000,000 erythrocytes, 250,000 leukocytes, of which 96.66% were lymphocytes; and 30% hemoglobin. A diagnosis of lymphocythemia was made. The child died from the effects of a rapid cachexia that hypodermic injections of quinine and sodium cacodylate were unable to benefit. At the post mortem examination a voluminous mediastinal tumor was found that weighed 200 gm. and that proved on histological examination to be an hypertrophied thymus body. The tracheobronchial lymphnodes were hypertrophied. The liver was enlarged as was also the spleen. Microscopical examination showed a lymphocytic infiltration of all the organs. [J. M. S.]

Society Reports.

NEW YORK OBSTETRICAL SOCIETY.

Meeting held May 13, Dr. Malcolm McLean in the chair.

Dr. H. J. Boldt presented specimens obtained by **myomec-tomy for interstitial fibroids**, in a woman of 38. She had had menorrhagia and bearing-down pains. The operation was done by the abdominal route. He also reported a case of **puerperal ovarian abscess** with recovery following laparotomy in a woman of 32, whose third child had been born 4 weeks before. Though there were extensive adhesions, the pyo-ovarium was removed without rupture. He showed an **ovarian hematoma** removed by posterior vaginal section. He gave the history of a patient with **chronic ovaritis** for which vaginal oöphorectomy was performed. He also showed a **fibromyomatous uterus** removed by abdominal hysterectomy from a patient who had passed the menopause. Panhysterectomy proved unusually difficult because of supravaginal hypertrophy of the cervix. He then reported a suppurative **fibromyoma** with a large gas cyst, in the anterior wall of the uterus, removed by vaginal hysterectomy with recovery. Paravaginal section was made to allow more room. His final specimen was a **multilocular serous cystoma of the ovary**, capillary in form, probably due to the remains of the Wolffian body. Dr. Bandler described the histology of the cyst, which he had examined.

Dr. H. N. Vineberg presented a large **fibroid tumor** with a peculiar apron-like growth over its anterior surface, showing in one part sarcomatous degeneration, from a woman of 50. The detailed technique of the operation was given in full. Death followed on the ninth day after operation.

Dr. Brooks Wells showed a specimen of **fatty degeneration of an ovarian cyst**, removed by abdominal section, from a woman of 65, who had borne 6 children. A full history of the case was given. He then showed a specimen of **edematous fibroid**, removed from a widow, aged 38, by abdominal hysterectomy. Finally he showed a **glandular polyp** removed from the uterus of a single woman of 42.

Dr. E. H. Grandin presented a specimen of **ectopic gestation**, the right tube being in the process of aborting, the left tube being distended by a large clot. The only symptom of the condition was slight irregularity in menstruation. Dr. Grandin described the left ectopic tube removed from a patient, from whom, 2 months before, he had removed the right tube for the same affection. Here, too, the diagnosis was exceedingly difficult. He believed a diagnosis could only be made by posterior vaginal section. Dr. S. Marx agreed with Dr. Grandin in the value of vaginal section. He referred to 2 cases, one of whom died simply from procrastination. The history of the second case, in which a complete decidual cast was passed, was given briefly.

Dr. Dougal Bissell read a paper on **transabdominal ureterovesical grafting**. This was first done successfully by Gustave Simon in 1856. Of the 68 cases from that date to 1895, 22 were complete failures, 13 hysterectomies were eventually performed, while 7 were relieved only by colpoceleisis. Navarro is given the credit of having first successfully performed ureterovesical anastomosis transabdominally. Dr. Bissell related the history of a woman of 26, with uretero-uterine fistula, operated upon by him successfully, giving his technique in detail. Four weeks after operation a deposit of earthy phosphates was removed through a cystoscope from around the normal ureter. He believed the abdominal route should be chosen in the vast majority of cases. By Dr. Bissell's method, the ureter was found by an incision in the anterior surface of the left broad ligament. This is only possible in cases in which the broad ligament is intact. He prefers this method, because it admits of extraperitoneal manipulation and extraperitoneal implantation of the ureter at the point of selection on the bladder wall, it necessitates the shifting of the ureter but slightly from its normal direction, and allows thorough provision for leakage through the vagina, at the base of the extraperitoneal space within the folds of the broad ligament. Dr. Florian Krug referred to a case operated upon by him in 1894. He said that Dr. Penrose's case of grafting the ureter into the bladder was the first such case known in the United States, and that his case

was the second. In this statement he was confirmed by Dr. Bache Emmet, who, however, considered that much credit for this new scheme of performing the operation should be given Dr. Bissell. He considers drainage essential. Dr. H. J. Boldt considered his method applicable to most cases. He reported a case not yet on record. He believed that the main feature was not to make the sutures in the bladder, surrounding the ureter, too tight. Dr. Clement Cleveland spoke of the ease with which the operation could be done when the patient was in the Trendelenburg position. In closing, Dr. Bissell said that the method of finding the ureter and the point of selection in the bladder wall for anchoring the ureter were the features in his paper upon which he wished to lay emphasis.

MANHATTAN DERMATOLOGICAL SOCIETY.

Meeting held June 6, Dr. Gottheil in the chair.

Dr. L. Weiss presented a case of **cretinism** in a child of 14 months, with typical idiotic expression, large flabby tongue, prominent abdomen, bowed legs and subnormal temperature. The thyroid gland appeared normal, while the palms of the hands and soles of the feet showed myxedematous infiltration. Dr. Weiss recommends caution in the use of thyroid extract in such young infants. Dr. Kinch has given $1\frac{1}{2}$ grains daily with good results to a child of 11 months. Dr. Cocks had treated 4 cases without any apparent result.

Dr. R. Abrahams presented a case of **lupus erythematosus** involving the bridge of the nose and the sides of the cheeks, which had followed a trivial injury a year before. Injections of 95% alcohol and the Röntgen rays proved of no benefit, but a 20% mercurosalicylic plaster caused marked improvement. Dr. Weiss advised Koch's lymph and Hebra's freezing mixture in these cases; Dr. Pisko advocated the use of glacial acetic acid; Dr. Bleiman used creosote-salicylic plaster; Dr. Geyser used the X-ray, while Dr. Gottheil preferred the Finsen light treatment. Dr. Abrahams also showed a case of **lupus vulgaris**, the ulceration being confined to the left ala nasi. The process began 6 weeks ago. Dr. Oberndorfer considered this case specific; Dr. Kinch thought it epithelioma. Drs. Pisko and Weiss, who found adhesions between the uvula and the pharynx, also regarded the case as syphilitic.

Dr. E. L. Cocks presented a case for diagnosis, a woman of 50, with large, circular, scaly, hyperemic patches on the chin and forehead, and over the eyebrows. An eruption appeared 22 years before, which had been diagnosed as specific; the present eruption has only existed 3 months. Dr. Pisko thought this resembled granuloma fungoides, while Dr. Gottheil thought it mycosis fungoides.

Dr. J. Sobel showed his case of **sclerema** again, demonstrating the great improvement following the use of an ointment of equal parts of mercurial and boracic ointments. He also used massage. The prognosis he considers to be good. Dr. C. Kinch showed a child of $4\frac{1}{2}$, with a pigmentary deposit on her forehead. Dr. W. S. Gottheil presented a case of **capillary dilatation of the cutaneous vessels**, most apparent when the child cried. There was an extensive congenital nevus, with marked atrophy of the left gluteal muscles. Dr. Wainwright discussed the question of maternal impressions. Dr. J. P. Oberndorfer then presented a case of **acne varioliformis**.

Dr. Sobel presented a woman of 20, with a **chancre** of the upper lip and submaxillary adenitis. History and diagnosis were quite apparent. Dr. Geyser showed a **recurrent epithelioma** of the upper lip and a case of **epithelioma** with improvement following X-ray treatment. Dr. Abrahams showed a boy with **herpes zoster** involving the nose, cheeks, ears and neck, the eruption having been preceded by fever. Drs. Sobel, Gottheil and Oberndorfer considered the case to be simple herpes; Dr. Pisko thought it **eczema vesiculobullosum**. Dr. Geyser showed radiographs of a case of bone tuberculosis in a patient with facial lupus.

Original Articles.

MUTISM AND APHASIA.

A CLINICAL LECTURE.

By HERMANN GUTZMANN, M. D.,
of Berlin, Germany.

Authorized Translation by Max R. Dinkelspiel.

Of all the central disturbances affecting the power of expression there is none that more excites our interest than the absence of speech. In the cases which I will show you you will see the representatives of the most frequent varieties of these central deprivations of speech.

As a general thing in modern times, one is accustomed to apply the term *aphasia* when there is an absence of speech. It is, however, not entirely correct to apply that expression to all the forms which come under consideration. It will be better for us to reserve the term for those cases in which speech had existed and subsequently became lost. We would therefore consider those patients as having aphasia, who have been deprived of their power of speech, by reason of an embolus in the brain, apoplexy or by any tumor which causes disturbance of the central pathway, or by some psychical disturbance that has deprived them of a power of speech which previously had been perfect. In contradistinction to these cases there are those patients in whom there has never been a thorough development of the motor speech center and in whom there had originally existed various impediments to the development of that center. We will therefore not speak here of aphasia, but of mutism.

Audimutitas.—By the term *audimutitas*, in German "Hörstummheit", we understand a condition occurring in children who hear perfectly well and are normal from a psychical point of view, but who still have not learned to speak.

The little patient I show you here is ten years of age. She was brought to us when she was about eight years of age and at that time was completely mute. Even now she speaks but little, as you will soon be able to convince yourselves. But little progress has been made during this time as far as her development of speech is concerned. At the same time you see that her upper lip is considerably shortened by large strands of cicatricial tissue. This condition presents the characteristic picture of a bilateral congenital hairlip which has been subjected to early operation. When the child opens her mouth we find that there is a plainly visible scar in the raphe of the palate. This is a congenital cleft palate. The new soft palate, which has formed since the operation by Dr. James Julius Wolff, is sufficiently long and movable. Only between the upper row of teeth and the upper lip there is still the small communication between the oral and nasal cavities, but which, as can be easily demonstrated physiologically, is not of particular importance as far as speech is concerned. As you can easily convince yourselves, the child understands everything that you say to it. Commands, even those of a complicated nature, she carries out correctly, her expression is intelligent, and she shows that she is able to fol-

low, with attention, conversations that are held between adults, as soon as such subjects are discussed which one of her age is able to comprehend. The child is particularly small for her age. In general, her bodily movements are below normal. She only learned to walk in her fourth year and even now, as you see for yourselves, she is clumsy and weak upon her feet. When walking, she places her feet upon the floor with difficulty and at one time she fell quite often. She is just as clumsy with her hands. Nevertheless, she is self-reliant but cannot hold the pencil correctly when writing, so that she encounters the greatest difficulty in performing her writing exercises and at her present age can hardly write at all. In those letters which extend from right to left, as for instance the number, one, she invariably transposes from left to right. She can write the letters t, i, m, and n, while, on the other hand, her reproduction of the letter l is hardly recognizable. But, as you can at the same time convince yourself, the child can read small syllables correctly. The impediment in writing in this case, therefore, obviously depends only upon an absence of mechanical dexterity.

The balance of the examination of the child shows nothing particularly abnormal. The reflexes as well as sensation are normal. Digestion is now performed regularly, while some years ago the child suffered frequently from constipation. When admitted to the clinic, she still had nocturnal incontinence of urine, which, however, soon disappeared upon the administration of proper diet.

As far as the family history is concerned, the child comes from a highly intelligent professor's family. The mother is highly neurasthenic, while the father, as well as four other children, is absolutely healthy. As already stated, she is the youngest of five children and was born with a bilateral harelip and cleft palate. The harelip was operated upon immediately after birth, while the cleft palate was operated upon when the child was one and one-half years of age.

Perhaps this introduction to the case will not immediately convince you that the child is psychically normal, as physically she conducts herself quite clumsily and, as far as her speech and education are concerned, is considerably behind other children of her age. Perhaps even the tests I have made in order to appeal to her intelligence may not entirely convince you of the fact. Therefore I must beg of you to believe me that the child is psychically entirely normal. I am able all the more to claim this, as I have had the child in my clinic for over two years and am familiar with the expressions of her thoughts and powers of observation. We therefore have to deal here with a case of word deafness which becomes complicated by a series of physical defects.

In order to be able correctly to view the causal relationship of the child's condition, it will be well to recall how speech develops in the normal child. As is well known, the normal child understands at the eighth month a large variety of words, which, however, it has not yet been able to express. Many investigations have been made as to how many words a child of eight months can speak; but it would be more important to extend this

investigation, and ascertain how many words a child of one year can understand. Naturally the sensory vocabulary would be by far greater than the motor one. The sensory center of speech is therefore markedly developed before the motor speech center shows even a beginning of development, and we have in all children up to a certain age a normal physiological word deafness. The limit, up to which we consider this word deafness as physiological, is indiscriminately selected by us, in that we depend upon our general experience and say, that a child, which has not begun to speak at the age of three years, is afflicted with word deafness.

The question now arises, as to what causes are responsible for the fact that a child does not begin to speak at a certain age, notwithstanding that it understands a large number of words. In a compilation of 289 cases in my dispensary, of which there were 160 males and 129 females, I was able to attribute the condition in 107 cases, that is 37%, to hereditary causes. It furthermore showed that the hereditary taint was markedly more derived from the paternal than from the maternal side. In the case presented to you here, however, in this little ten-year-old girl, no hereditary cause can be demonstrated, either from the parents or from the grandparents. Almost in all cases of word deafness we find that the general bodily movements, walking, running and the use of the hands, also become deficient. As a matter of fact there exists a parallelism between learning to walk and learning to speak, and therefore the children who learn to speak late also generally learn to walk late. I emphasize this particularly as the opinion seems to be disseminated among the laity that children who learn to walk late, learn to speak all the earlier, and vice versa. Speech, however, considered as an external manifestation, is only movement, and as in cases of word deafness sensory speech is well developed and only the motor one restricted, it does not appear wonderful to us that the motor power in these cases is restricted or deficiently developed. Also in this little girl, the general motor retardation is plainly visible.

Furthermore, I found in these 289 dispensary cases hyperplastic faucial tonsils in 152 cases, or 52.6%. It is well known that these hyperplasias, as a rule, can markedly influence the psychical as well as the bodily development of children. In many cases I have been able to remove a word deafness, which had existed up to the sixth year, by operation upon the hyperplastic tonsils, so that I myself, as well as the relatives of the children, was astounded with what rapidity speech developed after the operation. In one patient of my colleague, Flatau, upon whom he operated at my suggestion, (the patient was a boy of six years who was completely mute) speech was completely restored six weeks after the operation and as good as would be found in a normal boy of six years. It should be added that in this case the father was a teacher and had done all in his power to bring about speech in the child by exercises, but in vain. It is therefore evident that hyperplastic tonsils—and I count among these cases only those which are so marked that they ex-

tend beyond the border of the posterior nares and can influence the respiratory passages considerably—can without a doubt have an inhibiting influence upon motor speech. In our child, adenoid vegetations are not present. Instead, however, we find in this case the congenital cleft palate and harelip the large size of which is still demonstrable by the numerous and disfiguring scars that are present. The operation has been markedly successful and performed early, so that one could hope this purely organic inhibition should not markedly influence the development of the child's speech. Nevertheless, the defect in this child's case is to be attributed to organic causes; and this was more markedly demonstrable when the child was first brought to me than now, although it is still present. When the little patient was first brought to me two years ago, in speaking the word "papa" the child attempted to imitate what had been spoken to her. When, however, the child appreciated the fact that the first syllable which she uttered did not correspond in sound to the one spoken to her, she stopped and nothing could again influence her to repeat the attempt. Only when the excitement incident to her first failure began to disappear, did she again attempt to repeat the word, only again to be frightened into a period of inactivity by the repeated failures.

In the meantime, however, she learned a series of sounds. You hear now that she can correctly reproduce the letters b, p, d, t, and even k and g. She can even call several other children by name, and can transmit to them a few small requests.

The sounds which still cause her some difficulty are the fricative sounds, and as soon as I dictate a difficult one to her, you will immediately appreciate the effect. If I dictate to the child the sequence of syllables ss, a, ssa, she attempts to repeat the first ss, and she remains silent as soon as she fails to accomplish this plainly. On the other hand, she is able immediately to repeat words composed of simple explosive sounds and evidently with pleasure at her success.

I believe that in this case the impediment caused by the organic defect is very evident. As the child herself observed that she could not speak like others, she ceased speaking and she weakened in her zeal for repetition (which is just as markedly present in her as in other children) when she observed that she could not imitate at will.

What is to be done in this case and what has been done for the purpose of compensating for the defect, I will show you when we come to speak in our lectures of the mechanical dyslalias. At present it is simply to be stated, as is here shown, that a central impediment to development may occur, or that it may be caused by an organic peripheral lesion. While it is in itself a rarer condition that girls are mute, this rarity nevertheless is not so great that one can deny the occurrence of mutism in girls. On the whole, girls develop the faculty much more quickly than boys, because their talent for imitation, as a rule, is greater and because they find more pleasure in imitating. This, of course, has nothing to do with the intellectual development, as the development of intellect and speech by no means progress in a parallel manner. There are hopeless

idiots who talk without stopping and even employ the expressions and manner of speech of adults, and there are also highly intelligent children who, at the age of two, and even at the ages of 2½ and 3 years, cannot speak and who subsequently develop the faculty of speech normally. That audimutitas was very well known to the older clinicians, is seen in a statement by Hieronymus Mercurialis in his text-book on Diseases of Children (*de morbis puerorum*, 1584), in which he tells that Maximilian, the son of Emperor Frederick the Third, was mute up to his ninth year and afterward not only acquired speech, but even became quite eloquent; "*nam relatum est, Maximilian Frederici III, imperatoris filium, usque ad nonum aetatis suae annum elinguen et mutum fuisse, sed tamen beneficio naturae non solum, acquisivisse verum etiam fuisse eloquentissimum.*"

Deaf Mutism.—The little boy you see here is seven years of age and has always been healthy. The parents are cousins, therefore consanguineous. The father is a neurasthenic and the mother entirely healthy. In the paternal family there have been frequent manifestations of psychical depression and two brothers of the father committed suicide. The paternal grandfather died of paralysis; on the other hand, the history on the maternal side is good. The birth of the patient was difficult and attended by instrumental interference. You see that the skull of the child is strikingly asymmetrical.

The child learned to walk early, developed physically in a normal manner, although he is built very slender. On the other hand, it soon showed that it heard little or nothing and speech did not appear. We have therefore to deal here with a deaf-mute whose congenital impediment of hearing or deafness appears to be amply founded on an hereditary taint. The boy is very intelligent, comprehends remarkably easy, observes keenly and, under the systematic training of a deaf-mute teacher, is progressing remarkably well. You hear that his voice hardly sounds like that of a deaf-mute, and that he speaks small sentences and words well and with almost normal accent.

If we examine his acuity of hearing we find that he appreciates the whole scale. Only, upon sounding the deeper notes, do we elicit a diminished appreciation, although these tones are not of material importance so far as the perception of speech is concerned. The scale, from b to g, which has been described by Dezold as of considerable importance for this subject, is easily appreciated by him. He also hears words and repeats them clearly and distinctly. The pitch of the voice, in pronouncing words, is also easily imitated by him, and especially the sibilant tones are repeated with promptness. Individual words are likewise heard by him, although not with the same certainty. Systematic exercises he has learned and known. But this appears to be in hearing having increased the utility of his power of audition, although there is not an especial intensification of the same. It also appears, that he easily hears little sentences and expressions, with rather an appreciation of the accent and the sequence of vowels than of the words themselves. His hearing is, furthermore, so good, that he can hear the calling voice in a large room at about 6

to 8 meters, but in the open, of course, only at a few paces.

One would suppose that, with this relatively good power of hearing, the child has absorbed of itself some of the speech heard among its surroundings during its period of development. But this is by no means the case, and we see therefrom that a moderate diminution of the acuity of hearing in children may eventually lead to total deafness. An extraordinary excitation of the hearing power still present is here requisite, in order that it may be consciously employed, and the exercises which are necessary for producing this are to be strenuously recommended in all children that have suffered from impairment of hearing since birth. These exercises were introduced by Itard into the Paris Deaf and Dumb Asylum, at the beginning of the last century, and energetically employed there for 15 years. If the results of these exercises did not fulfill the expectations, it was because at that time too much had been expected from them after brilliant results had been obtained in a few cases. There is no doubt, when greater portions of hearing remain, that exercises may bring about an appreciation of speech; but it is erroneous to believe that high grades of impairment of hearing, or even deafness, can be cured. As worthy of recognition as are the efforts recently made by Urbantschit in Vienna, too great hopes regarding deaf-mute children should be warned against. Among the great number of deaf-mutes there are, relatively, only few among whom systematic exercises in hearing are of avail. To select these few correctly is naturally of great importance, and if the scale described by Bezold is really of value, it will be very gratifying. According to my own experience, I still doubt its efficiency. I believe that only such children are capable of being trained by such exercises, and only in such are they of practical value, in whom the power of hearing vowels is present. Notwithstanding that it may appear that this allusion to Itard's classification is a step backward in science, I still maintain, in spite of Bezold's scale, that the most reliable test for human hearing is the human voice itself.

In our little patient the activity of hearing, as far as speech is concerned, will be of the greatest importance, as it has been heretofore. But this will not be sufficient for his associations, and therefore he will have also to use his eyes for appreciating what is spoken to him.

To remove the little one to a greater distance from us, I place him now about 15 meters away, and you see that he easily repeats the simple words and sentences which I dictate to him, without any other facial movement than those normally employed in speaking. He therefore reads what is spoken to him from the lips. In the development of speech this power, to read from the lips of the speaker, develops by itself. But it is very important that the speaker does not articulate otherwise than a normal individual would in the act of speaking.

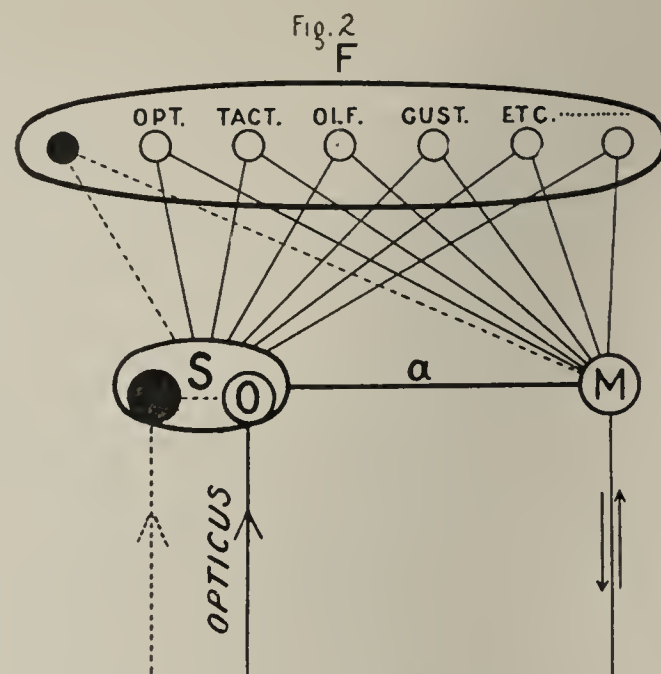
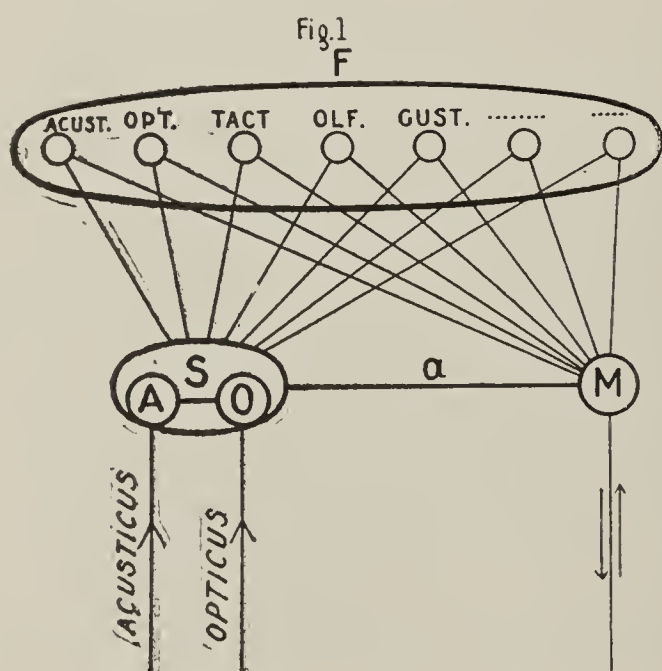
For, if the child only learns to read off distorted movements of the mouth, it will not be competent for practical life. If you, yourselves, whom the patient has never known, speak a few words to

him, you will easily be convinced that he will read also from your lips without difficulty. In a previous lecture we have learned the procedure that is necessary to bring about imitations and ability to interpret the movements of speech, and I will therefore refer you to what was said at that time.* At this point I will take up the not unimportant question as to whether this reading of the movement of speech should be practised in those deaf-mutes, whose power of hearing is still preserved to the extent that it is in this case. At the first glance one is lead to believe that this question should be answered in the affirmative, but it has been the subject of some protest by several aurists and in particular by Urbantschit. According to these authors, the interpretation of the motions of speech should be prevented as far as possible, as the power of hearing may otherwise become injured. There is, however, nothing more arbitrary than this assertion. Nobody has yet proven that the power of hearing will be thus impaired, and notwithstanding that it is natural that, during the exercises of hearing, the face should be turned from the dictator, the reading off of the motions of speech is nevertheless absolutely necessary, even when marked hearing is still present, in order to accord the patient a position in society. Patients even come to me for the purpose of learning how to interpret the motions of speech, and who are able to understand general conversation in a room at a distance of ten meters, or, in other words, a distance of two rooms. But for this purpose considerable exertion is required and they soon tire, and for that reason look for some means of replacing the power of hearing. It does not very rarely occur that such individuals easily understand the beginning of the conversation, but soon tire to such an extent that they hear nothing more. This rapid tiring of the power of hearing, which is characteristic of certain cases, is best obviated when such patients learn to employ the eye for the perception of speech, in addition to the ear. I have never seen an impairment of hearing result from such a procedure.

We all employ our eyes for the perception of what is spoken, and I have called your attention to the fact that we all pay remarkable attention to these motions. If, while in the theater we do not quite understand an actor or a singer and then look at him with the opera glass, we immediately understand him better. This is obviously the same procedure as the one under consideration, but one which in most cases is performed unconsciously and is likewise latent. We are simply accustomed from childhood to observe the face of the speaker, and not only to appreciate speech with the ear, but also with the eye. If, therefore, you desire somewhat to modify the Wiernicke-Lichteim scheme of the speech phenomenon it must be accomplished in the matter indicated by the accompanying figure. We have two centers of perception for speech, an acoustic and an optical one. The acoustic one is employed for the sounds accompanying speech, the optical one for the movements of speech, that is for the various

*The readers of this article are referred to the American Annals of Deaf-Mute-Education, translated last year by the Volta Bureau in Boston.

movements of the lower jaw, the cheeks, the lips, floor of the mouth, etc. Both of these centers have always been recognized as being in the most intimate relationship in the normally developed human being, and both are likewise in direct communication with the motor speech center. From the motor speech center tracts emanate which influence respiration, voice and articulation, and the co-ordination of which composes human speech. These tracts are not only the exponents of expression in a peripheral sense, but also are the exponents of a peripheral conduction of impression, which inform us by various sensations as to the adjustment existing in our speech mechanism. For instance, I can appreciate the intention of articulating the letter "I" without doing so loudly and without looking into the mirror for the purpose; and yet I plainly feel that my tongue is in the correct position for the purpose of articulating that letter. Such an appreciative sensation is the real controlling factor in our movements of speech. For, if hearing were alone the controlling element of speech, as one frequently reads, it is obvious that such a control would be exerted too late and could only manifest itself after we had spoken and had appreciated with the ear the product of speech and, furthermore, a correction under such circumstances would no longer be possible. We must, therefore, also accept the assumption that there are sensory paths of peripheral impressions in addition to the paths of peripheral expression which emanate from the motor speech center. Therefore we have three peripheral tracts of impression: First, the auditory tract, second the optical tract, and third the last described sensory tract. Both of the sensory and motor speech centers are in communication when conception of a spoken word takes place. The seats of impression are, of course, distributed throughout the cerebral cortex and can therefore not be considered as a center. Should we, however, speak of them collectively as a "conception center," we must, as Wiernicke does, place such an application within quotation marks, and qualify the word by stating that this "conception center" is not really a center, but a representation or the sum total of all the impressions attending the conception of the spoken word.



In the figure we have connected these individual impressions into one center (F) by an oval line.

If, therefore, we want to appreciate the psychological condition of the child that is a deaf-mute, we can do so by the following figure. The sound center for speech is absent or only slightly present, and, furthermore, acoustic appreciation is also absent to a like degree. But the optical pathway is left, while the perception of the patient's own efforts at speaking is also left to him.

Based upon this psychological scheme, it is absolutely untenable to dispute the development of phonetic speech in children that are deaf-mutes; for it is evident that the two ways that are left, the face and the sensation, are the ones that are naturally given for speech. If, therefore, reproaches are entertained against the German method of thus developing the deaf-mute, and claims are made that it is an unnatural procedure, those finding themselves within this category simply prove that they have not sufficiently investigated the psychology of speech. The German method of instructing deaf-mutes is to be considered as a natural one, and if it has been claimed that the deaf-mute is supplied with gestures as a substitution for a natural speech, it would appear that the normal individual does not gesture at all. Nevertheless, we all have a natural gestural speech at our disposal, and if the deaf mute employs this, he obviously confines himself within the natural phenomena of speech. But, if he employs gestures, it represents an accomplishment. There is, therefore, no reason for the deaf-mute only to employ gestures, nor is it justifiable to say that gestures are the only natural means at his disposal.

(To be Continued.)

THE POLITICAL SIDE OF MEDICINE.*

By JOHN B. ROBERTS, M. D.,
of Philadelphia.

Politics in its broadest and truest sense is the science and art of business, as applied to aggregations of people. The invitation to take part in a discussion on medicine and politics has been accepted, because I have always been interested in the executive work of medical organizations and because I

*Read before the American Academy of Medicine, June 9, 1902.

believe the good citizen is the man who exhibits a lively interest in the business activities of his county, State and neighborhood.

A British medical man, who had shown direct personal interest in national politics, was once reminded by a fellow-physician that "medicine is a jealous mistress." "True," was the reply, "but I shall give her no cause for jealousy." This gentleman subsequently became a member of the British government. I do not believe that his knowledge of medical science made him any less a wise statesman. It is probable that the sanitary and other medical acts of the British people were the better because of the influential post held by this doctor of physic.

A western newspaper said, some time ago, that the physician should not be permitted to escape his obligation to take active part in local politics, and asserted that the doctor is needed in even the higher fields of civic usefulness. This is the right view of the case.

In my medical infancy I was taught that a physician should abstain from all public activity, except the practice of medicine. The theory was based on the belief that the field of medicine was wide enough fully to occupy him and that, therefore, he could not hope to compete with others in intellectual matters outside of medicine and at the same time attain eminence in medicine. It was also assumed that success in practice was perhaps more sure if the public never thought of him except as a doctor. This teaching held it unwise in a physician to give popular lectures, even on medical topics, inexpedient to accept official positions in social or educational organizations and detrimental to be known as occupied with civic questions.

This doctrine held sway over me during my professional adolescence. After a time, however, I was driven by indignation at the condition of the political party, whose basic principles I espouse, to drop my attitude of indifference to all things outside of medicine. I came gradually to believe that for a doctor to neglect personal attention to civic and political problems is selfish and unjustifiable. His educational advantages, his special knowledge of sanitary requirements, his trained judgment, his self-restraint and poise in responsible situations, his familiarity with the vagaries of human nature and the respect shown him by his fellow-citizens make him eminently qualified for executive work and even leadership in civic affairs. This has recently been most conspicuously shown in this country by Dr. Justus Ohage, Health Commissioner of St. Paul, Minnesota, and in Cuba by Dr. Leonard Wood, the Governor-General.

If a young man studies medicine with the single idea of accumulating money, it may be that he will accomplish his end more quickly by confining his exertions to the medical rut, indicated by the theory under discussion. This is, however, by no means sure. It is not unlikely that an acceptance of the duties of citizenship would enlarge his circle of friends and patients and give opportunity for better

and higher medical achievement. Narrowness of interest creates narrowness of mind, and no vocation needs broader mental grasp than medicine.

The man of education, brains and capability owes a certain part of his day to the community in which he lives and to association with which his personal success and happiness are due. If he does not give it, he is not doing his full duty to mankind. The greater the advantages he possesses, the greater the call to serve God by serving man. Few men, as a class, have greater personal capacity than physicians. Few then owe more to the State.

It is possible that this due to the State should not be paid too early in the doctor's career. It may be true that in his medical adolescence he should stick to medicine almost entirely; but the time surely comes when he should aid personally in the endeavor to raise the standard of health, honesty, education and beauty in the region in which he resides. This he must strive for, even if his efforts fail to show any immediate practical results. Time may be required to convince his community that sanitary plumbing, pure water and compulsory vaccination pay. Men of lower ideals may deny that official dishonesty and public indecency sap the vigor of a village or town, and inevitably lead not only to higher taxes but also to diminished personal safety. It may not be clear to all his fellows that widespread education of the young and systematic beautification of towns and cities attract desirable residents, raise the value of property and increase the happiness of all.

Let him devote a portion of his days to the inculcation of these truths, while continuing his professional work in sick-room, hospital and college. He will then find that his life is more valuable to his fellow-man than that of the doctor who from laziness, carelessness or timidity neglects his civic duty, under the pretence that his professional work is too exacting to permit such diversion of energy. The doctor's work for the state must have, to be successful, the same quality as his work in medicine. Earnestness and sincerity, honesty and courage, intelligence and courtesy are as essential in one as the other. He must be willing in both activities to labor without thought of personal reward. To do something is a surer source of happiness than to be somebody.

If physicians take the part in civic life which is suggested by these words, much will be done to hasten the time when we shall not feel abashed to name the place in which we live, or to mention the political party we espouse. Whenever medicine has touched politics, politics has been bettered. It is almost a truism that, whenever politics has touched medicine, medicine has been smirched. A corroboration of the first statement is found in the present condition of Havana, in which seaport the U. S. army surgeons and the medical Governor-General have blotted out the sanitary disgrace of two centuries. The blighting effect of the injection of politics into sanitary medicine is well-known. The politicians of California denied for months the existence of bubonic plague in San Francisco, al-

though scientific medical men proved its existence by incontrovertible evidence. Mayor Schmitz of the metropolis has recently "satisfied himself" that no cases ever existed in the city, and has removed four of the members of the Board of Health because of their activity in seeking to stop the spread and existence of plague. This action reminds me of a certain laughable assertion of Mayor Ashbridge, when typhoid fever was endemic in one section of Philadelphia, because of a contaminated water supply. His honor vigorously denied the existence of any unusual number of cases, claiming that in his opinion the cases called typhoid fever were really only "enteric" fever.

These two examples of municipal medicine are enough to convince the most doubting that medical science, if not the medical man himself, is urgently needed in civic executive circles.

The somewhat frequent membership of physicians in school boards is an undoubted advantage to the public. This is especially true in the State of Pennsylvania, where in many of the rural districts the local school board may, under State law, assume the duties and powers of a local board of health. It is discouraging, however, to hear that a physician recently felt compelled to decline to serve longer on a certain school board in Philadelphia, because the perpetual use of improper methods by politicians interfered with the best interests of education. The children of that city suffer much in educational privileges because of the interference of "practical" politics in school management. Teachers are appointed by "pull," and, it is said, by bribes, instead of on merit; schools are overcrowded and the children are given half time, because school directors are selected for political reasons. The best recommendation for school director in republican Philadelphia is willingness to obey the machine. A considerable number, therefore, are saloonkeepers by occupation and school directors by political favor.

The executive business of hospitals, of medical schools and of societies devoted to medical subjects constitutes what is often termed medical politics. Here the doctor has frequent opportunity of showing his skill in carrying on business enterprises and may exercise the talent of leadership. His success is probably equal to that obtained by men of equal ability in any other one walk of life. While he may lack the office training of a boy brought up in a bank or a store, his stock of general information, his knowledge of human nature, his judicial mind and his habit of scientific accuracy will soon enable him to equal, if not outstrip, his nonprofessional colleague in executive grasp and precision. This assertion does not apply to the doctor, who is ignorant of scientific medicine, who never cultivates his powers of observation, who through laziness or indifference prescribes ready-made secret nostrums of whose physiological action he can have no real knowledge, or who flies from one new medical hobby to another.

It has been thought by some that medical men should have no voice in the management of medical schools or hospitals. They are said to be defi-

cient in business training and methods, and it is thought that their professional relations with other medical men render them injudicious or weak disciplinarians. This view should be no more true in medicine than in legal or military circles. Courts-martial are universally used to determine truth and fix responsibility in army and navy matters; and in civil life lawyers are, as other citizens, under the judicial control of members of the bar.

There is no question that much depends on the individual. Some business men know very little business, as some doctors and lawyers know very little medicine and law. A not inconsiderable experience with professional and nonprofessional men has shown me that the lifelong pursuit of business or law does not necessarily develop energy, accuracy and honesty; nor does the same number of years devoted to the study and alleviation of disease always develop these essential traits of a successful and honorable career. Taking all things into consideration, however, I would feel that the purse and the good name of an institution were safer in the hands of what I may call the composite doctor than those of the composite lawyer or business man. Special talent and special training will always tell, but no one vocation has in its ranks all the talent and all the training of the community.

One would not expect lawyers to break rules and regulations and defy laws, statutes and precedents, in order to have their wishes carried out; but they occasionally do. One would not expect business men to incur unnecessary debts, or to look for success when the outgo exceeds the income; but such things are constantly seen in investigations of financial and commercial enterprises. It cannot be denied that doctors do likewise. We all have humanity's failings and vices.

My contention is that medical men are of decided advantage in the governing boards of hospitals, colleges and other institutions. They make good officers and are not as likely as others to be deceived in the qualifications of medical teachers or subordinates. The kind of doctors frequently selected by business men as their family physicians is strong testimony as to the faultiness of their discrimination in this respect. Doctors, moreover, are not more apt to be cowardly, unjust or tricky than business men. I may be prejudiced, but I am rather inclined to rate the courage, equanimity, justice and honesty of doctors above the same qualities in other men. There are undoubtedly some despicable doctors, but I have not met very many.

In a certain New England hospital, a medical officer made, some years ago, a series of vivisectional experiments on sick and dying babies. I do not know whether the man was punished by the board of trustees; but he evidently did not expect to be, for he published an account of his nefarious work, and read before a learned society a paper detailing his results. In another hospital a year ago a distinguished teacher deliberately opened a woman's gall-bladder, for the sole purpose of demonstrating to some surgical guests his method of operating. Is it likely that these vivisectional operations on help-

less human patients would be tolerated by a board of trustees in which medical men had seats? It may be asserted that the governing boards in these institutions never knew of the improprieties committed by their medical subordinates. True, but my reply is that boards containing a few medical men could hardly remain ignorant of such infractions of propriety.

It is not unreasonable to suppose that the justice of paying for the services of the medical staffs of hospitals will be sooner recognized, when more boards of trustees contain medical members. Hospital service, conscientiously and scientifically rendered, takes so much time that few physicians or surgeons can afford to give it without a salary. Hence, much hospital work is done carelessly. Sometimes a younger man does the work, as an assistant, while the elder man gets the credit of doing charitable work without fee. The result of expecting the doctor to perform hospital service for nothing is often this: That hospitals either appoint inexperienced men with plenty of time and no private practice; or accept the gratuitous service of older and more experienced men, who slight the work, because their private patients are their first care.

According to *American Medicine* (May 25, 1901), the secretary of the Massachusetts General-Hospital has calculated the annual money-equivalent of the charitable work of the staff of that institution. His computation is based upon the charges for similar services in private practice, taking low figures for the fees. The valuation for the year 1899 is as follows:

2,421 surgical operations, at \$25....	\$60,525
95, 265 house visits at \$2.,.....	190,530
104,205 out-patients visits at \$2.....	208,410

\$459,465.

It is probable that this institution follows the usual rule of American hospitals and pays no salaries to its medical staff. At one time, perhaps now, it would not permit the members of the medical staff to accept fees even from private patients in the private rooms. The injustice of such customs and rules is evident when it is realized that a hospital could not exist without its corps of physicians and surgeons, which gives for nothing an amount of service equal in this instance to nearly half a million dollars a year. The superintendents, clerks, apothecaries, nurses and financial agents are paid, and the members of the staff should be paid also. The salary need not be large, but it ought to be enough to insure faithful service and to compensate in some measure for the time taken from the doctor's private duties.

In 1900, the number of in-patients treated in the twelve largest general hospitals in Philadelphia was 27,132. If each of these was seen once a day by a doctor at \$2.00 per visit the money value of such advice would be \$54,264. That seems a munificent daily donation to charity from the Medical Profession; even after deducting the amount paid by the small proportion of paying private patients in these hospitals.

It is evident that the men who give this much

of their ability to the work of hospitals should be paid at least a moderate wage. It is equally clear that they should have representation on the governing boards.

In medical societies and college faculties the doctor has a chance to exhibit his efficiency and deficiency in political affairs. The prizes are not as high as in national or municipal politics, for salaried officers are few and fat contracts unknown. Still, the itch for office and power does cause many to descend to devious methods; and not a few instances could be mentioned to prove that there are physicians who believe in the creed that the end justifies the means. The opportunity for correcting such evils is, however, much greater in medical than in civic circles. The majority of medical men have high ideals of conduct and under leadership will awake from lethargy to right wrong-doing among their fellows. The final triumph of the general medical profession over the low grade medical colleges shows this fact. It was the American Medical Association, the State Medical Societies, the American Academy of Medicine and kindred bodies, which created the sentiment that enacted laws compelling the college faculties to raise the requirements for the medical diploma.

Those of us who have practised a few decades have seen, it is true, the self-seeking medical politician attain honorable position by undesirable manipulation of men, but honor has not been obtained by the holding of the honorable post. An irregular peg does not fit well in a square hole; and the dishonored man shows early his inability to fit accurately into an honorable office. The other man, who feels that self-respect must be had, though it comes high, contemplates with equanimity the misfit and smiles at the contortions of the misfitted peg in its endeavor to occupy comfortably the unbecoming hole.

In the medical world the estimate is pretty generally correct, as to whom the profession should honor with its gifts of place and power. There is some degree of error, but it is by no means as great proportionately, as in the circles of business and economics. The doctor, if he live long enough, is pretty sure to have all the professional honor from his colleagues that he deserves. If he, early in life, obtain undeserved honor, he is apt to find later that, by a sort of retributive justice, his fellows learn of his defects and estimate him at his real worth. This is similar to the traditional delay of legal decisions. The medical profession comes to a just conclusion in the end, but it takes time. The estimate of the unintelligent public of professional worth may often be wrong, but that of the physician's own colleagues seldom stays wrong, even if it be wrong in the first place. He, after all, will value most the expert opinion of his fellows.

An important phase of my topic is a consideration of the actions and reactions that take place between doctors and politicians in Municipal, State and National affairs. The principal points of contact are in health boards, hospitals, medical examining and licensing boards, pension examining boards, and the Army and Navy and the Marine-

Hospital services. The entrance of scientific men into deliberative assemblies must do good, for the increasing accuracy of science cannot fail to make its impress felt in shaping legislative policy. Sanitary and hygienic problems are of ever increasing importance in national life; and physicians have therefore the general training which makes their views on these topics weighty. The interests of commercialism and science may seem antagonistic, but in the broadest sense they are one. To deny the existence of bubonic plague in San Francisco may seem wise to politicians; but the intelligent sanitarian knows well that it is better to admit the truth at once and stamp out the disease by immediate action. Even if that action be the destruction of Chinatown by fire, it will be cheaper and wiser than the false security bred by wilful denial of the truth. To suppress the knowledge that tetanus germs have been found in vaccine virus ought not to be the function of a medical society.

This same short-sighted policy of mere opportunists has recently been exhibited, it is said, in France. The House of Deputies has given some thought to the prevention of food adulteration and to other sanitary subjects; and the medical deputies have been accused of being party to such sanitary legislation. It is said by the Journal of the American Medical Association that the result has been a demand from commercial interests that doctors and hygienists be excluded from membership in the House of Deputies. If the statement be correct, it is an odd confirmation of my belief that commercialism and politics need the physicians' honest heart and clear head to prevent consummate folly.

The American Medical Association will doubtless exert a more potent influence than it has in State and National politics; for since the reorganization it is much better fitted to make its wants known and to have its advice sought and heeded. I consider its Committee on National Legislation, which meets yearly at Washington, an instrument of increasing competency.

The State Medical Societies have done wonderfully good work in elevating the standard of medical education, since the Association, at its meeting at New Orleans about 18 years ago, sent to each of them the draft of a bill to create a State Board of Medical Examiners. The definite proposition, endorsed at that time by the Association, gave the State Societies a basis of action. The State laws adopted since then vary from the original scheme, but they accomplish the purpose intended;—the removal of medical licensure from the medical college to the State Government.

The movement must now be followed up until some form of reciprocity in, or transfer of, licenses be established between the States. Perhaps a certificate of a successful voluntary examination of high grade before a Board of Examiners representing the U. S. medical services, the American Medical Association and the whole medical profession would be accepted by the individual States as equivalent to their own examination.

The effect of political contact upon medical matters is usually deleterious. This is often seen in the

selection of the medical staffs of hospitals under State or City control, the appointment of members of medical examining boards by Governors, and the selection of boards of pension examiners by Federal authority. It is not denied that good appointments are quite often made, but it is well known that it is the good of the party rather than the good of the service that usually regulates the selection. It is pull rather than proficiency that counts.

I know of a state board of examiners which some years ago had upon it, as examiner in materia medica, a man who asked the physiological action and dose of a certain much vaunted proprietary remedy. The applicants for license had never heard its name; the examiner had probably recently received a sample with "literature," or had been called upon by the manufacturers' drummer. I have also known of instances in which attempts were made by political forces to get examining and licensing boards to pass unqualified men.

These illustrations will perhaps suffice to justify my belief that medical science is liable to be injured by contact with politics, unless the doctors take part in politics and resolutely fight for a higher standard of public ethics. The work of pension boards and of municipal and state hospitals would be much improved, if the spoils system were replaced by the merit system. It has always seemed to me a mistake that President McKinley did not leave the Pension Examiners under civil service rules, where they were placed, I believe, by President Cleveland.

Sir Walter Scott wrote to a friend, in 1814, at the time Napoleon was sent to Elba, that the French Emperor's fate was "an awful lesson to sovereigns that morality is not so indifferent to politics as Machiavelians will assert." The present day needs some such assurance that politics must recognize the power of public morality. I know no man better able to teach morality and ethics to the politicians than the average doctor.

REPORT OF AN EPIDEMIC OF CEREBROSPINAL MENINGITIS.

By F. ALAN G. MURRAY, M. D.,
of Finzel P. O., Maryland.

The following report embraces 5 cases of meningitis which occurred between April 16 and May 9, 1900. This was the first time in the history of the locality that meningitis was present, though Frostburg and Lonaconing, Md., only a few miles distant, had severe epidemics in 1893 and sporadic cases are present nearly all the time.

My cases were seen, in consultation, by physicians who had attended in the epidemics of Frostburg and Lonaconing. The epidemic of Lonaconing was fully studied and reported by Drs. Flexner and Barker of Johns Hopkins University.

CASE 1.—Harvey D., age 22 years, laborer, single, came to this locality seeking work. He was taken sick early on the morning of April 16, complained of severe frontal headache, pain and stiffness in back of neck, back and legs, chilly sensations, loss of appetite. Examination showed tongue clean; pulse regular, 76; temperature normal. In the evening he was worse, the pain in his head

extreme, he walked about all the time, his mind cloudy. I gave him acetanilid, bromides, etc., for headache, but they had no effect. April 17, patient walked about all night, very stupid, knew no one, he walked stiffly, his head thrown back, cried out when the back of his neck was pressed on. He kept his eyes partially closed and the head averted from the light. Pupils even, contracted and dilated normally, lungs clear, heart sounds clear, abdomen negative, no urethral discharge, hands and wrists stiff, pulse 88, small, skin blanched, had a chill. Blood examination showed a very marked leukocytosis, mostly polymorphonuclear, as many as 8 being counted in a single field, averaged about 4 to every field, objective $\frac{1}{8}$. 12 M., temperature 105°, pulse 92, respiration 28, very restless, lay with his back to the light. 2 P. M., temperature 104°, pulse 72, breathed quietly. Kernig's sign present, patient cried out and held his hip when it was tried. 7 P. M., temperature 101°, pulse 72, unconscious. April 18: 6 A. M., patient restless all night, very restless at present time, gave him hypodermic of morphine $\frac{1}{4}$ gr., hyoscine hydrobromate 1/50 gr. 9 A. M., temperature 101°, pulse 72, respiration 28, not so restless, lay with his back to the light, head thrown back and back curved in. Urinary examination: color dark amber, sp. gr. 1030, reaction acid, albumin about 1%, no sugar. Microscopical examination: Blood and bloodcasts. 2 P. M., temperature 102°, pulse 84, respiration 32, pain in head severe. 7.30 P. M., temperature 102°, pulse 84, respiration 28. April 19, restless all night, bowels moved. 8 A. M., temperature 101°, pulse 78, respiration 24. Herpes on lips and nose, head thrown back, he cried out when it was pushed forward. 6 P. M., temperature 103°, pulse 92, respiration 32. April 20, herpes had extended all over mouth and up into nose. 11 A. M., temperature 103°, pulse 104, respiration 32, lay in one position, picked at the cover. Blood examination showed marked leukocytosis, about 4 to the field. Urine examination: Color dark amber, sp. gr. 1026, albumin about 1%. Microscopical examination: Blood, bloodcasts and granular casts. 4 P. M., temperature 103°, pulse 120, respiration 32. 8 P. M., temperature 102°, pulse 116, respiration 32. Condition about the same, passed his urine in bed. Pupils widely dilated, responded sluggishly to light. April 21, quieter during night, condition same. 7 A. M., temperature 103°, pulse 116, respiration 40, passed urine in bed, Kernig's sign marked, herpes on lips and face, extreme retraction of the head. Patient was taken home this day, where he died on July 6, 1900.

CASE 2.—Emma McK., age 10 years. Taken sick on May 3 in the afternoon with vomiting and violent headache. I was called in May 4. Patient complained of severe pain in head, back and limbs, vomited frequently, had no appetite, bowels open, tongue coated, heart and lungs clear. She had a number of large red spots on both legs, which itched and were painful on pressure. Temperature 101°, pulse 120. Gave her acetanilid and bromide. May 5. Condition same, headache more severe, she cried out all the time, had not slept. Temperature 102°, pulse 118, increased bromides. May 6, 10 A. M., temperature 103°, pulse 120, had herpes on lips and chin, tongue heavily coated, breath foul, had severe pain in head, neck and back, held her neck stiff and head thrown back, pressure on neck or moving head caused more pain. She had paroxysms of pain which caused her to scream. Light hurt her eyes, any noise or jar increased the pain in her head and caused a paroxysm of pain. Spots on legs had disappeared, she had red blotches on the abdomen. Lungs and heart clear. Gave her quinine, 3 grains every 3 hours and cold sponging every 3 hours, cold cloths to head and back of neck. 5 P. M., temperature 103°, pulse 120, pain not quite so severe, morphine 1/6 gr. for pain when necessary. Urine examination: A heavy deposit of urates, albumin none, no sugar, sp. gr. 1028. Microscopical examination negative except urates and phosphates. May 7, 10 A. M., temperature 103°, pulse 112, condition same, rested fairly well during night. 5 P. M., temperature 101°, pulse 96, Kernig's sign present, complained of severe pain on flexing thigh. May 8, 11 A. M., temperature 102°, pulse 88. Pain not so severe, rested better during night. May 9, 11 A. M., temperature 102.5°, pulse 80. Kernig's sign more marked, great pain in head and neck on turning in bed, mind clear. Urine examination: Color clear amber, small precipitate, reaction acid, sp. gr. 1012, no albumin, no sugar. Micro-

scopical negative. May 10, 4 P. M., temperature 97.5°, pulse 60, complained of being chilly, feet cold, pain better, Kernig's sign marked, bowels open, gave her stimulants and hot bottles. May 11, 4 P. M., temperature 98°, pulse 88, felt much better and hungry. Had occasional pains in her head, could move her head without much pain, herpes drying off lips and chin, tongue cleaning. May 12, very much better. May 14, no pain at all. May 20, entirely well and out. June 14, had an attack of measles and came through all right, had continued well.

CASE 3.—Barbara McK., age 13, sister of above. Taken sick May 6. Severe frontal headache, vomiting, tongue coated, breath foul. 10 A. M., temperature 102°, pulse 116, gave her acetanilid and bromide. 5 P. M., temperature 102°, pulse 120, severe pain in head, neck and back. May 7, 10 A. M., temperature 101°, pulse 112, felt better. 5 P. M., temperature 99°, pulse 96. May 8, 11 A. M., temperature 99°, pulse 96, had some pain in head and neck. May 9, much better, neck still stiff. May 10, felt about all right. June 14, had an attack of measles and came through all right.

CASE 4.—Elmira McK., age 20 years, sister of above. Taken sick May 6. Complained of pain in her head and back of neck, back and limbs. Temperature 101°, pulse 112. May 7, 10.30 A. M., temperature 101°, pulse 108, worse this morning, vomiting and severe pain in the head. 5.30 P. M., temperature 102°, pulse 132, pain in head and back of neck worse. May 8, 11.30 A. M., temperature 102°, pulse 100, tossed about, crying and screaming with pain in head and neck, tongue coated, lungs and heart clear. Had some mottling of the skin. Gave her quinine 3 gr. every 3 hours, cold sponging every 3 hours, morphine $\frac{1}{4}$ gr. when necessary. May 9, 11.30 A. M., temperature 102°, pulse 92, condition same. May 10, 4.30 P. M., temperature 103°, pulse 68, herpes on lips, tongue coated, pain about same, vomited often, Kernig's sign present. May 11, 4.30 P. M., temperature 99°, pulse 64, herpes on lips increased, pain not quite so severe. May 12, condition much improved, pain nearly gone, temperature 99°, pulse 72. May 14, she had a twitching in her right shoulder. She continued about the same until May 22 when she had a severe diarrhea and was slightly delirious. I was not called in to see her again until May 30, her temperature 99°, pulse 80, passed her urine and stools in bed, wasted a great deal. Her right arm was completely paralyzed, head thrown back, neck stiff, could not articulate, her legs were all right. Gave her potassium bromide 10 gr. and potassium iodide 10 gr. 4 times a day. May 31, condition same. June 1, right leg partly paralyzed. June 4, temperature 104°, pulse 128, took nourishment well, physical condition same. June 11, temperature 103.5°, pulse 120, no change. June 14, temperature 103°, pulse 132, patient weaker. June 17, temperature 100°, pulse 108, slightly better. June 24, temperature 102°, pulse 108. July 1, temperature 100°, pulse 104, brighter, slept and ate well. July 8, temperature 102°, pulse 120, left leg paralyzed. July 15, died.

CASE 5.—Charles F., miner, aged 36 years. Taken ill 1 A. M., May 9, with severe headache, vomiting and backache, tongue clean, stomach dilated, pain over stomach and in left side, Temperature 98.5°, pulse 80. Gave him quinine, salol and calomel. May 10, 9 A. M., temperature 101°, pulse 80. Was vomiting and had great pain in head all day yesterday and last night, pain still continued today, tongue coated, lungs and heart clear, stomach still dilated, gave morphine 1/6 gr. for pain when necessary. Urine examination: Color clear amber, no precipitate, reaction acid, no albumin, no sugar, sp. gr. 1020. Microscopical negative. May 11, 9.30 A. M., temperature 100°, pulse 88, vomiting stopped, pain in head very severe, tongue coated, had a severe chill early this morning. Blood examination showed a marked leukocytosis, 2 to 4 in every field, $\frac{1}{8}$ objective. 10 P. M., temperature 99°, pulse 68, he had very severe pain in his head, he got up and staggered around, kept his head thrown back, vomited during day. Gave him morphine hypodermically. May 12, 9 A. M., temperature 101.5°, pulse 72, patient rested fairly well until 3 A. M. Pain not so severe this day, he was conscious, had Kernig's sign marked, lungs and heart clear. 7 P. M., temperature 99°, pulse 68, respiration 38. He had paroxysms of pain during the day, picked at the cover, herpes on upper lip, unconscious. He

had difficulty in passing his urine, cried out when his head was raised. May 13, 6.30 A. M., temperature 102°, pulse 72, respiration 32. Herpes extended up into his nose, he coughed occasionally, held his head and neck rigid, moaned all the time. Lungs and heart clear. Urine examination: Color dark red, reaction acid, no albumin, no sugar, sp. gr. 1016, heavy deposit nitrate urea crystals on standing in contact with nitric acid. Microscopical negative. 2 P. M., temperature 103.5°, pulse 100, respiration 32. He was very restless, bowels constipated, passed his urine in bed, took his nourishment. 7.20 P. M., temperature 105°, pulse 88, respiration 32, had a chill and sweat a good deal after it. May 14, 8 A. M., temperature 103°, pulse 32, patient had Cheyne-Stokes breathing, bowels moved, he passed everything in bed. Tongue heavily coated, condition about the same. 1 P. M., temperature 104°, pulse 104, respiration 32, he moaned and tossed about. 8 P. M., temperature 104°, pulse 108, conditions same. May 15, 9 A. M., temperature 103.5°, pulse 98. 5.30 P. M., temperature 102°, pulse 92, rested a little to-day. Blood examination: No increase in leukocytes noted. May 16, 9 A. M., temperature 104°, pulse 100, respiration 36, condition about same, lungs and heart clear, tongue heavily coated, bowels constipated, pupils dilated responded sluggishly to light. 2 P. M., temperature 105°, pulse 100, respiration 52, moaning all the time. 6.30 P. M., temperature 104°, pulse 96, respiration 40. May 17, 9 A. M., temperature 101°, pulse 88, respiration 40. 2 P. M., temperature 104°, pulse 112, respiration 60, lungs full of mucus rales, pupils widely dilated. 8 P. M., temperature 103°, pulse 116, respiration 68, condition same. May 18, 8 A. M., temperature 105°, pulse 120, respiration 60, stertorous breathing, absolutely unconscious. 2 P. M., temperature 106, pulse 140, respiration 72, face blue, hands and arms cold. Died at 4.20 P. M. Rigor mortis complete at 8 P. M.

All of these patients were in excellent health up to the moment of the onset of the disease, and it set in suddenly with vomiting and headache in four of them. Case one did not have any vomiting. Four of the patients had Kernig's sign, opisthotonos, and herpes on their lips and noses. Case 3 was evidently an abortive case, as it began in the same way but ended on the fourth day in complete convalescence. In cases 1, 4 and 5, the pulse rate was slow and the temperature very high. This struck me as being one of the most remarkable and interesting features of the disease and seemed to point to a fatal prognosis as all these patients died.

Case one had a typical acute nephritis, in cases 3 and 4 the urine was not examined, in cases 2 and 5 examination showed it to be normal. The blood was examined in cases 1 and 5 and showed a marked leukocytosis, which in case 5 was only noted once.

Lumbar puncture was not done, so the bacteriological cause of the disease can only be guessed at. Marked stiffness of the back of the neck was noted in all the patients, it was so great that they could be raised on their heels. Their eyes responded properly to light in all, but were sluggish in cases 1 and 5. Light and noise irritated the patients. Constipation occurred in all the cases. There was no communication between the three families in which the cases of meningitis occurred, and the houses were several miles apart. Persons living next door and in constant contact with the sick were not affected, and the only cases that seemed to be directly infected were in the house in which the three girls had the disease, cases 3 and 4 taking it from case 2.

Case 1 and 4 ran an acute course, then got better, then developed chronic cases and died with paralysis.

An urticarial eruption occurred in case 2 and case 4 had a curious mottling of the skin.

The treatment consisted of rest in a darkened room, quinine and cold sponging for the fever and morphine and bromide for the pain and restlessness. In case 4, potassium iodide was given for some time and counterirritation of the spine, but they did not appear to have any effect. The cold sponging brought the temperature down for a few minutes, but had no lasting effect.

The only medicines that had any effect were the morphine and bromide.

INTESTINAL ANASTOMOSIS.*

By JOHN R. COOK, M. D.,

of Fairmont, West Virginia.

The subject I have chosen for my paper is to me a very interesting one, as there are sometimes conditions arising which make it extremely difficult to draw the line as to whether it is safer to trust to suturing one or more penetrating wounds of the intestine than to excise the gut and unite clean-cut edges and thus eliminate the possibility of sloughing from ragged edges and devitalized parts usually caused by bullet wounds.

My first attempt at making an end-to-end anastomosis of a gut was an experimental operation on a dog in 1897. In this case I excised three inches of the ileum, using the Halsted rubber inflated bag, the mattress suture, and the Mitchell-Hunner stitch. I labored faithfully for four hours, but finally got through and my dog made a splendid recovery. I kept track of the dog for about twelve months, then he went astray and was finally shot for killing sheep.

My next experience with suturing the intestine was in a colored man, November 3, 1900. Twenty-six hours after he had been shot in the abdomen he was brought to my hospital with a pulse of 140, and was much distended with peritonitis. I opened him and sutured two bullet wounds in the duodenum. I could not find the bullet, but cleaned out the cavity and drained it, but he continued to sink and died in six hours.

My next patient was a man to whom I was called for a strangulated hernia. The gut had been strangulated so long that peritonitis had already set in. I did not have a Murphy button nor Halsted bag with me so I excised six inches of the gut, and took out a V-shaped piece of the mesentery. This case was twenty miles away from any hospital and I did not have other appliances, so sutured without any. This patient had already become septic, and died in four days. No post mortem was held.

My next was a case of gunshot wound of the bowels in which Dr. F. W. Hill assisted. Patient was five miles in the country. I arrived at the patient's bedside three hours after the accident; found a large woman with a bullet wound 3 inches below the umbilicus and a little to the left of the median line. It took about an hour to do the necessary scrubbing to convert the small bed-room into an operating room. This being done, we pressed Dr. Hill's driver to give the ether under our direction, and the operation commenced. Cutting down on the median line, we found the belly to be full of blood and fecal matter. I mopped this out and began to make search for the extent of the injury, finding seven perforations, five of which were within a few inches of each other, and the other two were about two feet further on. The mesentery and bowels were so mutilated that it seemed safer to excise than to suture each opening. I removed twenty-eight inches in one piece and two in the other, putting in two Murphy buttons. In cutting away the gut I did not cut out the V-shaped piece of mesentery in this case, but sim-

*Read before the State Medical Society of West Virginia, at Parkesburg, May 23, 1902.

ply cut enough of the mesentery to clear the gut, and using a long ligature, I tied it off in one continuous gathering mass and, when the gut was brought together, folded the mass of mesentery on itself and stitched the edges together to hasten union and prevent accident by loop of gut slipping through it. I have here the specimen of the gut removed, found the bullet free in the pelvis. I cut out the track of the bullet through the wall of the belly, irrigated the abdominal cavity, left in gauze wicks for drainage and closed the wound on either side of the drainage. The patient rallied nicely and went on to an uneventful recovery. One button was passed on the thirteenth day and the other one in five weeks. After the passage of the second button the patient was allowed to sit up, and is now entirely well.

My fifth case was in a man on whom I had operated for a violent attack of appendicitis eighteen months before, removing a quart of pus from the abdominal cavity. He recovered nicely and resumed his work, that of blacksmithing, but he was taken in the time indicated above with cramping in the region of the incision, and some vomiting. When he was brought to the hospital his symptoms were not violent, although it was apparent that he had obstruction of the bowels. The onset was sudden; he had pain and vomited once; during the 36 hours immediately preceding his entering the hospital he vomited four times. His temperature on entering was normal, pulse 80, but pain and absence of bowel movement continued. Frequent high enemata were kept up, and the next day the temperature began to come up. He vomited twice more and that of a stercoraceous character, pulse only 90. Right here it is well to emphasize the fact of how some cases of obstruction will deceive you, for other cases, the most typical ones, have violent pains and vomiting from the beginning, also show tumor over the seat of the obstruction, and are followed by great distension and rapid pulse. This case, however, was not of that character, but the patient only had the sudden attack of pain and vomited once, then constipation, and only vomited six times in 72 hours, but the last time showed stercor. I cut down and found the loop of gut caught under a band of adhesion. It was gangrenous and nearly tore open while I was extricating it. It was necessary to cut out 21 inches, to put in a Murphy button, and drain with a small gauze wick. The same manner of tying off the mesentery was observed as in the previous case and the patient left the hospital in five weeks, well.

The foregoing cases illustrate very clearly how important it is to operate early. Case No. 4 is remarkable because of the amount of the intestine removed and the comparatively slight shock following such an operation. I further believe that the shock was much lessened in the last two (Nos. 4 and 5) cases on account of not taking out the V-shaped piece of the mesentery, as formerly we were taught to do, as it is reasonable to suppose we have less cut surface to deal with; and as compared with amputation of a limb, shock and danger are lessened when we are farther away from the center of circulation. I have seen nothing in the literature about this method of dealing with the mesentery before.

The field of operative surgery is so large and there is so much room for improvement that each time we operate we ask ourselves the question: Could we not do a little better had we the same work to do over again?

In conclusion, the only safe method in the toilet of gunshot wounds of the abdomen is to drain.

SOME POINTS IN THE TREATMENT OF CRUSHING INJURIES INVOLVING THE LARGE JOINTS.

JOHN GLENDON SHELDON, M. D.,

of Montrose, Colorado.

Surgeon-in-Chief to the Montrose Hospital; Consulting Surgeon to the Telluride Hospital.

In the treatment of compound injuries of the large joints, in which there is extensive injury to the soft and osseous structures, with free exposure of the articular surfaces, thorough drainage of the joint cavity, at the primary dressing, is generally advised and practised. Although infection occurs in the vast majority of such cases, I believe that primary drainage of the injured joint is not only unnecessary but is harmful and should be advised against in all cases.

During the month of April, 1901, I treated two compound crushing injuries of the elbow joint by draining the joint cavities at the primary dressing. In each case, suppuration of the skin and subcutaneous tissues occurred which was followed by suppurative arthritis. From observing these cases, I believed that the badly crushed skin and subcutaneous tissues were the only structures that were not rendered aseptic, at the primary dressing, and that infection of the joint cavity and of the deep structures would not have occurred if deep drainage had not been employed. It occurred to me that if it was impossible to render the badly injured superficial tissues clean, the deep structures could, at least, be protected from secondary infection. Therefore, I have resorted to the following method in treating compound crushing injuries of the large joints:

The injured tissues are cleaned as thoroughly as possible. After the detached fragments of bone have either been removed or placed in their proper positions, the joint cavity is completely closed by the suturing of ligaments or muscles. The defect in the skin is not closed. Skin incisions, made for the purpose of exposing deep structures, are sutured; but the traumatic wound is not repaired in any part.

The reasons for employing the treatment, described in the foregoing, are these:

1. The skin and subcutaneous tissues are subjected to more trauma than are the deeper structures and more unclean material is brought in contact with and is ground into them.

2. Being subjected to more injury, the vitality of the skin and subcutaneous tissue is more reduced than is that of the deep tissues and their cleansing is more difficult, and is less efficient, than is that of the bones, ligaments and muscles. I believe that, in almost every case of compound crushing injury of the large joints, we can render the deep structures practically sterile, but that we cannot render the skin and subcutaneous tissue sufficiently clean to prevent suppuration. If this is true, the advantages of the method of treatment herewith described are:

1. The clean joint cavity is protected from the unclean superficial structures.
2. The superficial tissues are thoroughly drained.
3. Secondary infection of the joint cavity is impossible.

The possible disadvantage of the method is that,

if the deep structures have not been rendered aseptic, secondary drainage becomes necessary. This objection is not a serious one, as an opening into the joint cavity can be easily made; and, if the osseous tissue is extensively injured, secondary operative interference will usually be necessary even if the joint is drained at the primary dressing.

It is not always easy to tell when secondary drainage should be resorted to in cases treated by the method herewith advised. It frequently occurs, that a considerable quantity of fluid may be present in an injured joint and still the joint be clean and remain so.

I shall report briefly three cases of extensive injury to large joints, in which unusually good results were obtained by not resorting to primary drainage of the injured joint cavities.

CASE I.—A fireman, aged 36 years, had his right foot and ankle run over by the wheel of a fire-engine. The skin on the outer side of the ankle and foot was extensively lacerated; the outer malleolus was crushed; a portion of the astragalus was detached and the two outer metatarsal bones were fractured. The parts were cleansed and the ankle joint closed. Superficial suppuration occurred, but the joint cavity remained clean. Six weeks after the injury occurred, the joint was found to have a considerable range of motion. Three months later, the skin wound was healed and the joint was strong, with the joint movements very slightly limited.

CASE II.—A miner, 42 years of age, was injured by falling rocks so that the left leg was broken and the right foot severely injured. The internal malleolus was crushed; the ankle completely dislocated, with the joint surfaces entirely exposed. The skin wound was partially closed in this case. The entire wound was practically clean. The patient resumed work four months after the injury, with a very serviceable ankle joint.

CASE III.—A man, 26 years of age, had his right elbow run over by the wheel of a wagon loaded with ice. The soft tissues over the outer side of the elbow were extensively lacerated. The external condyle and outer part of the articular surface of the humerus were crushed. The elbow joint was freely exposed. No injury was done to the radius or ulna. The musculospinal nerve was badly bruised, but was intact. The largest fragment was sutured in a position to afford an articular surface for the head of the radius. The joint cavity was closed and a moist dressing applied. Superficial suppuration occurred. Thirty-six hours after the operation, the joint showed evidence of a considerable quantity of fluid within the joint cavity. The general or local conditions did not indicate infection of the joint, so aspiration or drainage was not done. The fluid gradually disappeared. At present, 5 weeks after the injury, the joint can be flexed, extended, pronated or supinated to a considerable degree without causing pain. The sutured fragment seems attached to the humerus and the skin wound is closing rapidly.

Frontal Sinusitis With Measles.—A case of this rare complication of measles was recently reported by Dr. Joseph Belin, in a man of 18, with recovery following incision. Suppuration of the frontal sinus lasted about 10 days, ceasing after the evacuation of the abscess through an incision in the eyebrow. A few such cases have been reported in influenza and scarlet fever. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, June 5, 1902). He reported another case, in a man of 24, in whom frontal and ethmoidal suppuration, with influenza, was followed by brain abscess. The autopsy revealed an abscess of the frontal lobe, which was most probably secondary to the frontal and ethmoidal sinusitis. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, June 19, 1902). [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending July 5, 1902:

			Cases...	Deaths.
SMALLPOX—United States.				
COLORADO:	San Francisco.	June 15-22.	2	
CALIFORNIA:	Denver.	June 14-21.	3	
ILLINOIS:	Chicago.	June 21-28.	7	1
INDIANA:	Indianapolis.	June 21-28.	3	
	Muncie.	June 1-30.	2	
	Terre Haute.	June 21-28.	2	
IOWA:	Ottumwa.	May 31-June 28	10	
KANSAS:	Wichita.	June 21-28.	1	
KENTUCKY:	Covington.	June 21-28.	4	
	Lexington.	June 21-28.	1	
LOUISIANA:	Shreveport.	June 14-21.	2	
MASSACHUSETTS:	Boston.	June 21-28.	8	2
	Cambridge.	June 21-28.	7	7
	Everett.	June 21-28.	2	
	Lowell.	June 21-28.	1	
	Melrose.	June 21-28.	1	
	Newton.	June 21-28.	2	
	Somerville.	June 21-28.	4	1
	Taunton.	June 21-28.	2	
MICHIGAN:	Detroit.	June 21-28.	4	
	Grand Rapids.	June 7-28.	5	
MISSOURI:	St. Louis.	June 22-29.	6	
MONTANA:	Helena.	June 1-30.	1	
NEBRASKA:	Omaha.	June 21-28.	7	
	South Omaha.	June 23-30.	18	
NEW HAMPSHIRE:	Nashua.	June 22-29.	11	
NEW JERSEY:	Newark.	June 21-28.	20	5
NEW YORK:	New York.	June 21-28.	46	10
OHIO:	Ashtabula.	June 14-21.	2	
	Cincinnati.	June 20-27.	1	
	Cleveland.	June 21-28.	17	5
	Dayton.	June 21-28.	3	
	Toledo.	June 21-28.	3	2
PENNSYLVANIA:	Altoona.	June 21-28.	1	
	Johnstown.	June 21-28.	9	2
	McKeesport.	June 21-28.	1	
	Philadelphia.	June 21-28.	15	1
	Pittsburg.	June 21-28.	13	4
TENNESSEE:	Memphis.	June 7-28.	2	
UTAH:	Salt Lake City.	June 14-28.	6	
VIRGINIA:	Petersburg.	June 1-26.	2	1
WASHINGTON:	Tacoma.	June 14-21.	1	
WISCONSIN:	Green Bay.	June 22-29.	2	
	Milwaukee.	June 21-28.	3	
SMALLPOX—Insular.				
PHILIPPINE ISLANDS:	Manila.	Apr. 26-May 10	6	2
SMALLPOX—Foreign.				
AUSTRIA:	Prague.	June 7-14.	10	
CANADA:	Quebec.	June 7-14.	8	1
CHINA:	Hongkong.	May 3-17.	5	
FRANCE:	Paris.	June 7-14.		1
GREAT BRITAIN:	Belfast.	June 7-14.		1
	Birmingham.	June 7-14.	3	1
	Glasgow.	June 13-20.	2	
	Liverpool.	June 7-14.	3	
	London.	June 7-14.	157	29
	New Castle on Tyne.	May 31-June 14	1	
	Sunderland.	June 7-14.	1	
INDIA:	Bombay.	May 27-June 3.		7
	Calcutta.	May 24-31.		4
	Karachi.	May 24.	3	1
ITALY:	Palermo.	June 7-14.	4	
MEXICO:	City of Mexico.	June 15-22.	1	2
	Vera Cruz.	June 14-21.	1	
RUSSIA:	Odessa.	June 7-14.	5	2
STRAITS SETTLEMENTS:	Singapore.	May 3-10.		1
YELLOW FEVER.				
MEXICO:	Vera Cruz.	June 14-21.	28	12
CHOLERA.				
CHINA:	Hongkong.	May 3-17.	71	65
INDIA:	Bombay.	May 27-June 3.		1
	Calcutta.	May 24-31.		72
	Karachi.	May 25-June 1	4	1
		Imported.		
STRAITS SETTLEMENTS:	Singapore.	May 3-10.		99
PLAGUE.				
CHINA:	Hongkong.	May 3-10.	55	52
INDIA:	Bombay.	May 27-June 3		133
	Calcutta.	May 24-31.		132
	Karachi.	May 25-June 1	72	60

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8.

VOL. X, NO. 3

JULY 19, 1902

\$5.00 PER ANNUM

The Delay in the King's Case.—We fully appreciate the grave responsibility that rested upon the King's medical and surgical advisers during his ten day's illness before the operation. We rejoice with them and for them that their royal patient has done so well. But we are not in accord with some of the teaching which is already being based upon that now famous case.

The *Lancet*, which we suppose speaks by authority, gives the history of the case, and states that a correct diagnosis had been reached on the 17th. of June—one week before the operation was performed. At that time a swelling was detected in the right iliac fossa and there were pain and fever. Two days previously there had been a chill. In our opinion that would have been the better time to operate.

According to the *Lancet*, the course of the case for a few days after that time was rather favorable and lulled the suspicions of the attendants. This is quite characteristic, as is well known, of appendicitis, and sometimes is the forerunner of a fatal termination. Practitioners who have once been deceived by this false sense of security, and have then seen their patient die quickly from an eruption of pus into the abdomen, will not agree that it is good practice to delay at such a time. The *Lancet* says in effect that in the King's case the operation was not done until it practically forced itself upon the surgeons by a quick onset of alarming symptoms. This quick onset meant a threatened invasion of the abdominal cavity, septic peritonitis and death. The night before the operation the King had sat at a state banquet.

We have no intention of criticising the King's attendants, for we know not what were the controlling motives. Circumstances alter cases, and the circumstances in this case were unusual and formidable. But we are not willing to agree with the *Lancet* that the recent case of the King of England is an example that justifies delay. In our judgment, it is a warning against delay. The case is too important as an object lesson, and too many lives are constantly jeopardized, to allow us to agree with the

teaching that a patient should be permitted to go for a full week with pus forming in his abdomen.

Cuba's First Health-Report.—We commented last week upon the final report of Major Gorgas, the Chief Sanitary Officer of Cuba under the United States government. It is now our pleasure to acknowledge the receipt of the first health-report of the city of Havana and the town of Guanabacoa published under the auspices of the republic of Cuba. This pamphlet, for the month of May, 1902, follows the form laid down by Major Gorgas. The figures were collected by the American authorities until the nineteenth of May, and after that date by Dr. C. L. Furbush, the Acting Sanitary Officer, and the report is submitted to the Secretary of Government of the Republic by Dr. Carlos J. Finlay, Chief Sanitary Officer of Havana. The work bears evidence of the intention of the officials of the Cuban government to persevere in the excellent methods of our own military authorities in maintaining thorough sanitary supervision of the island. We learn that the total mortality for the month of May was 588, an increase of 89 deaths over those recorded in the previous month. This increase was for the most part among children from such diseases as meningitis, acute bronchitis, bronchopneumonia, diarrhea and enteritis. The two latter conditions are also responsible for an increased number of deaths among adults. Dr. Furbush, in view of the increased mortality from intestinal diseases, instituted a careful investigation as to the cause and has concluded that many were probably developed from the use of contaminated vegetables, especially those which were eaten raw. It was found that many of the truck gardens on the outskirts of the city, which are for the most part cultivated by the Chinese, were conducted in the most disgusting manner, the contents of privies and all manner of filth being used as fertilizers. The pools in which these materials were collected breed multitudes of mosquitoes and, further, their contents contaminate the water-supply by being carried into the adjoining creeks in rainy weather. Drastic measures have been established

to bring about a reform in these methods. It is gratifying to know that not a single death from yellow fever nor a case of that disease was recorded during May. The same may be said of smallpox, and the report further informs us that the mortality from tuberculosis showed a decrease of fifteen per cent. over the previous month. The authorities have used every effort to locate cases of tuberculosis and render such assistance as might be demanded. The reading of this first official record of Cuba's new sanitary officers would seem to assure the permanence of the work inaugurated, and so ably carried out, by our own officials.

Decapsulation of the Kidney for Chronic Nephritis.—New light has been thrown upon an obscure subject by a recent notable contribution to medical literature emanating from the distinguished pen of a fellow-surgeon of New York City. To those who are acquainted with the autopsy-room, the physical appearance of a chronically diseased kidney is a familiar picture. On the one hand, in the case of chronic interstitial nephritis, there will be noted the adherent capsule, the shrinking and unequal contraction of the organ, with occasional cyst-formation from obstruction of the uriniferous tubules. In chronic parenchymatous nephritis the organ is enlarged, and may be distinguished by cloudy swelling, with mottling, and discoloration due to circulatory and degenerative changes; while common to both varieties of chronic Bright's disease are the thickening, general or localized, of the capsule proper of the kidney, and secondary inflammatory changes in the perirenal fat. In both varieties there is an appreciable change in the density and hardness of the renal substance. The thickening and adherence of the capsule must necessarily result in an increase in the intrarenal tension, thereby resulting in increased arterial tension in the organ and a corresponding interference with the excretory function. If, in addition to this, the inflammatory action extends throughout the cortical substance, as it invariably does, there will occur an exudate of inflammatory material around the vessels and tubules. The already existing hypertension is thereby increased, and the obstruction to normal action is proportionately greater. This brief condensation of what is probably the explanation of the pathology of chronic nephritis in either of its forms, will at once make clear and convincing the rationale of Edebohls' most interesting and valuable suggestion. While performing nephropexy on floating kidneys, which were at the same time organically diseased, he noticed that the loosening of the capsule was fol-

lowed by an amelioration or even a complete disappearance of the symptoms of chronic Bright's disease. This prompted him to perform the operation of decapsulation in organically diseased kidneys that were not dislocated primarily, and only for the relief of the pathological condition. The results were astonishing and gratifying to the utmost. The patients, almost without exception, were cured of their chronic disease. The removal of the capsule at once lessened the intrarenal tension; the arterial and venous circulation improved; the exudates were absorbed; and the renal cells resumed their normal action. If it be not too soon to arrive at positive conclusions, it would seem that one more of the apparently insoluble problems of medicine has been solved. The physicians and surgeons of the world will await further investigations into the merits of this revolutionary method of treatment of chronic Bright's disease with the utmost interest.

The Smallpox Epidemic at St. John, New Brunswick.—A schooner arrived at St. John, New Brunswick, from Boston about September 23, 1901. After loading with lumber the departure of the vessel was delayed by head winds, and on September 30 a member of the crew, who had shipped at Boston and who had been sick for two or three days, applied for treatment at the dispensary of the general public hospital, where his disease was immediately diagnosed as smallpox. As the city was then unprovided with any special hospital for the reception of smallpox cases, the health authorities permitted the patient to remain in a building for the milder type of contagious diseases on the grounds of the general public hospital, where his death occurred about two weeks later. Nearly three weeks after the admission of this patient, smallpox was discovered at several points in the immediate vicinity of the hospital and thence spread until, by the middle of December, no part of the city was free from the suspicion of infection. There was a feeling of apprehension in Maine and the Provinces out of all proportion to the size of the epidemic, which was produced by the high mortality, the manner in which the epidemic started, the continued charges of incompetence against the local health board, the fact that travellers stopping over at St. John contracted the disease without being able to account for the manner of infection, and the appearance of a case in Bangor, Maine, which was attributed to infection from the St. John mail. The promptness with which the epidemic received recognition by the United States Government was salutary in many ways, although the situation on this particular occasion could not be construed

as a serious national menace. The manner of the spread of the disease from the hospital in which the first case was treated, is not satisfactorily accounted for in the above abstract of Dr. Safford's report to the Marine Hospital Service (*Public Health Reports*). It is generally supposed that the infection of smallpox is air-borne, but this is only a supposition and cannot be proved or disproved in the absence of definite knowledge as to the micro-organismal cause of the disease. With the discovery of the organism which is responsible for the various epidemic diseases, the theory of transmission through the air is giving place to the individual contact theory of the spread of the disease. The fact that the first case of smallpox at St. John was treated in a hospital leads us to suppose that the first patient came in contact with attendants, physicians and nurses, who, in turn, carried the infection to the various quarters of the city of St. John. The case of smallpox occurring in Bangor, Maine, which is attributed to infection through the mail, according to the report, cannot be accounted for by the personal contact theory. We believe, however, that the mere existence of a case of smallpox in a house or in a hospital will not account for the spread of the disease to people in the neighborhood unless there is actual contact between the patient and those subsequently infected, either directly or through the influence of a third person. We expect that subsequent study of smallpox infection will bear out this opinion. It must be admitted, however, that dried epithelial scales seem, in the absence of exact knowledge, to have the power of transmitting the disease, and if care is not exercised in disposing of the desquamated epidermis, this material may be scattered by currents and so spread the malady. We suspect, on the other hand, that this method of dissemination is rare.

\$4,000,000 for Convalescents.—Mr. John Master-son Burke (of whom the world seems never to have heard before) has just given this great sum of money to endow a "Relief Foundation" in New York for the benefit of convalescent patients from the hospitals, and of some other people. The announcement of such munificence, for such a purpose, quite takes one's breath away. The deed of gift specifies that "the benefit shall be reserved for intelligent and respectable men and women who, in consequence of sickness, or discharge from hospitals before they have gained sufficient strength to earn their livelihood, or in consequence of other misfortune, may be in need of temporary assistance."

We believe this will be a difficult trust to administer, for, be it noted, it includes practically a

large portion of the human race. If it merely included convalescents, it might be well and good; but when it specifies "other misfortunes," it opens the door for a vast army of the impecunious. Nothing seems to be more needed in this country than for some rich man to endow a college to teach other rich men how to give away their money. The good which the Burke Fund will accomplish will depend largely upon the way it is administered. That convalescents, discharged from the hospitals, often need assistance, is doubtless true; but they can easily be made to swell the crowds of persons who use the hospitals only to abuse them. This gift does not arouse so much enthusiasm in us as it would if it went to some other objects which we could mention.

A Symposium on Tuberculosis.—Our distant but none the less esteemed contemporary, the *Southern California Practitioner*, has recently published a symposium upon the ever interesting subject of tuberculosis. This series of articles has the merit of taking up the subject more thoroughly than is the custom in symposia upon various forms of disease, and of treating each department in a practical, if necessarily succinct, manner. Dr. Becket gives a brief but very satisfactory history of the disease, and calls particular attention to the fact that its contagiousness was recognized very early in the history of medicine. Another valuable article is that of Soiland, upon the value of electricity, particularly the X-ray, in diagnosis and treatment. He believes that, although no curative effects have as yet been attained, there is still hope in this direction. Dr. McBride discusses tuberculosis of the nervous system in a very satisfactory way, and Stanley Black takes up the pathology of the disease. Hastings and McNeil contribute articles upon the advantages of the sanatorium treatment; Parker, a brief article upon tuberculous adenitis, and Patterger, another long and valuable article upon the disease in childhood. Tuberculosis of the skin is discussed by Williams; of the ovaries, by Haines. Altogether we feel that we can congratulate the authors and editors upon their very creditable symposium.

Plague and Cholera in China.—The United States Consul at Canton, China, sends some grewsome stories about these two diseases in that Chinese city. A mighty Hercules is wanted to clean out that Augean stable—and the kind of Hercules wanted does not grow on Chinese soil. Canton's streets are eight feet wide, badly paved, and each one is an

open sewer for surface drainage. The dead bodies of animals and human beings (rats, pigs and babies) may be seen floating in its canals. From 40 to 50 deaths a day occur from plague and cholera. Leprosy occurs by way of a variety. Victims of plague are found dying in the streets. In some cases the disease is of extreme virulence, killing its victims in a few hours.

One writer, an intelligent American missionary, attributes the prevalence of these diseases to the bad sanitary conditions. Let us hope that he will preach the gospel of cleanliness—for the salvation of the world seems to depend upon that gospel more than upon any other whatever.

Egg Membrane for Skin Grafting.—In answer to a correspondent we may state that the substitution of egg membrane for skin in hastening the cicatrization of ulceration areas has been attended with considerable success in a number of cases, but that it is inferior to the Ollier-Thierch method. The part to be covered with membrane is prepared in the usual manner, i. e., cleansing with soap and water, alcohol and bichloride of mercury, after which all traces of the bichloride are removed by copious douching with sterile salt solution. The egg membrane may be applied to the granulating surface without previous preparation, or it may be soaked in a weak solution of corrosive sublimate and then washed with salt solution to remove the sublimate solution. It seems to make little difference which surface of the egg membrane is placed on the granulations. The graft is held in place by means of strips of rubber tissue and covered with gauze which is kept moist with salt solution; some, however, prefer to dress the part with dry sterile gauze.

Comparative Pathology in Philadelphia.—The Philadelphia Zoological Garden has always been a not unimportant field for the study of the pathology of many and various wild animals and birds in captivity. The garden is well stocked, and its mortality-rate (as in all such gardens) is unfortunately higher than is desirable. The society which conducts the garden has contributed not a little to science in the past, and we have noted with interest a statement in the newspapers to the effect that systematic studies on the bodies of all animals that die in the garden are being conducted by Dr. C. B. Penrose and Dr. C. Y. White. By means of such systematic studies and by the preservation of the records of autopsies an astonishingly rich collection of facts

could doubtless be secured in a comparatively short time.

Science is teaching more and more the intimate relations that exist between man and the lower animal forms in the propagation of disease.

Philadelphia is at present in a quandary about selecting a site for the municipal, or smallpox, hospital—and from present appearances the hospital is likely to land in a swamp. Nobody wants it in his or her neighborhood, and so the institution may be ditched in a boggy place known as the Cannon Ball Farm. Of this, more anon.

Current Comment.

TOO BUSY TO READ.

These thoughts come to our mind on reading a letter just received from one "busy doctor." It reads as follows: "It (*The Journal*) comes to me each week, but I have never read a page of it yet, and hardly expect to. I would love to read it, but have no time. I have to use every hour during the day to fill my professional calls, and at night I must sleep, so can not possibly have time to read. You may discontinue *The Journal*, as it is of no use to me." If any comment were necessary we might ask, is this man faithful to the sacred trust imposed on him by his patients? Is any physician justified in being "too busy" to keep in touch with the methods and experience of other practitioners in his line of practice? Will it pay him to thus disregard the interests of his patients—to say nothing of the future of his practice?—*Journal of the American Medical Association*.

THE STORY OF A DEAD CHINAMAN.

A few days ago one of the customs officials in Canton had an unpleasant experience of one of the methods used by Chinese residents in Hongkong to get rid of their dead who are victims of the pestilence. He opened a barrel, which had arrived that morning among the cargo of the Hongkong steamship *Powan*, and which, according to its invoice, was alleged to contain 90 cattle of shark's fins, a Chinese delicacy. When the lid of the barrel was removed 2 human feet protruded, and an examination disclosed that the barrel contained a Chinaman who had died of plague in Hongkong.—*Public Health Reports*.

Correspondence.

A QUESTION OF PRIORITY.

By WESTON D. BAYLEY, M. D., of Philadelphia.
To the Editor of the *Philadelphia Medical Journal*:

In your issue of June 21st. there appears an article by Dr. William G. Spiller, reviewing the literature and describing 2 cases of the hereditary type of spastic paraplegia. By hearsay he mentions a number of others occurring in the same family. These cases were all described by me after a personal examination of 8 or 9 of them, in the *Journal of Nervous and Mental Disease*, November, 1897. It is curious that Dr. Spiller (who was then an associate editor of that journal) did not deem it of sufficient importance to ascertain if there were any American observations on this subject of family paraplegia, while he was scanning the European literature with telescopic accuracy, as is evinced by his very complete bibliography which is entirely from foreign sources. Dr. Spiller would be the last person to withhold the credit due to one of his colleagues in his own city; and this inadvertency is only another instance of

oversight. If this comes to the notice of Dr. Spiller, I am sure he will replace his observations of this family with my report, which is more complete because of the better opportunity afforded me at that time to investigate the cases.

A REPLY TO THE PRECEDING LETTER.

By WILLIAM G. SPILLER, M. D., of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

My attention has been called by a letter written by Dr. Weston D. Bayley to an article published by him in the *Journal of Nervous and Mental Disease*, 1897. In this letter Dr. Bayley asserts that the cases of spastic spinal paralysis reported by me in the *Philadelphia Medical Journal*, June 21, 1902, had been previously reported by him in the article referred to. A comparison of Dr. Bayley's report with my own shows his claim is a proper one. The intelligent patient, described by me as Case 1, was unable to give me any information regarding the publication of these cases, and I was not aware that they had been reported. If Dr. Bayley had examined my paper more carefully, he probably would not have made the statement that my bibliography was entirely from foreign sources.

AS TO A GLYCOLYTIC FERMENT IN ADRENAL EXTRACT.

By ALFRED C. CROFTAN, M. D., of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

In the Department of Co-operation and Original Research of your issue of July 5, 1902, on page 9, under the heading "notes," one of your (unnamed) contributors, speaking of Dr. C. A. Herter's experiments on adrenalin glycosuria, closes his remarks with the sentence: "This is by far the most exhaustive series of experiments that has been made upon this subject and appears to settle the question very definitely against the existence of a *glycolytic* ferment in the adrenal extract."

In this sentence there is either a serious misprint, or a serious error on the part of your contributor. As far as I know, no one has ever claimed the existence of a *glycolytic* ferment in adrenal extract; in fact, it would be hard to understand how the injection of a ferment that can destroy sugar could cause the excretion of excessive sugar *glycosuria*.

I assume that the writer means *diastatic* ferment, i. e., a ferment that can convert glycogen into sugar. The existence of such a ferment in adrenal extract has not only been claimed, but positively demonstrated by me. Your contributor, if he means *diastatic* instead of *glycolytic* ferment, is, however, seriously in error if he deduces from Dr. Herter's masterful work on adrenalin glycosuria that the existence of such a ferment is definitely negatived. Dr. Herter's experiments merely show among other things that glycosuria can be produced by adrenalin, an adrenal product that possesses no *diastatic* power.

The question in regard to the *existence* of a *diastatic* (not *glycolytic*) ferment in adrenal extract is, however, not even touched by Dr. Herter's experiments.

His results must be considered an objection to the hypothesis (it was nothing more) that I advanced in my original communication to explain adrenalin glycosuria. Dr. Steele, in a clear and concise résumé of the whole question (recently published in your journal), has shown that my hypothesis can nevertheless be reconciled with Dr. Herter's results; true, it becomes superfluous but not invalid. Future investigations alone must decide whether it shall stand or fall.

I offer these remarks in order to clear up any misunderstanding that may justifiably arise in the minds of your readers on perusal of the questionable paragraph I have quoted above.

Reviews.

The Diagnosis of Surgical Diseases. By Dr. E. Albert, late Director and Professor of the First Surgical Clinic at the University of Vienna. Authorized translation from the Eighth Enlarged and Revised Edition, by Robert T. Frank, A. M., M. D. With 53 illustrations. New York, D. Appleton & Co., 1902. 419 pages.

This volume holds a rather unique position in medical literature. While we not infrequently see more or less voluminous text-books on medical diagnosis, it is quite unusual to encounter a book devoted entirely to clinical diagnosis of surgical conditions. This book, while not as comprehensive as we might desire, deals with the subject in a systematic manner which immediately appeals to the practical surgeon. Theoretical classifications are not adhered to, but the conditions are grouped according to similarity of symptoms, and are, therefore, brought into diagnostic contrast. This is a feature most worthy of commendation. There are some curious omissions which necessarily prevent the book from holding an up-to-date position. For instance, while dislocations and fractures of various portions of the body are described, the surest means of diagnosis of these conditions, namely, the use of the X-rays, is not mentioned at all. Again, in considering the tumors of the neck and of the carotid region, the most common cause of enlargements here is disposed of in a paragraph one-half page in length. Scrofulous or tuberculous glands of the cervical region, should, we think, command more careful consideration than this. The illustrations are, on the whole, instructive, but there are a few which are so idealized that they lose all value from a diagnostic point of view. For instance, in many multilocular cysts of the abdomen we have never seen one in which the loculi may be outlined through the abdominal wall. A hydronephrosis may attain considerable size, but it is rare indeed that it will be so clearly outlined that the reniform tumor may be diagnosed at a glance. The diseases of the joints have been very ably presented, as well as the diagnosis of the various hernial conditions. The book undoubtedly fills a gap, as far as it goes, in surgical literature, and we take pleasure in commending it to the active surgeon. We trust that in future editions the editor and translator will assume more of the rights of an editor and fill in the points which have been overlooked by the author of the book.

[W. A. N. D.]

The Chemistry of The Terpenes. By F. Heusler, Ph. D. Authorized translation by Francis J. Pond, M. A., Ph. D. 8 vo., 435 pages and index. Philadelphia, P. Blakiston's Son & Co. Cloth. \$4.00 net.

This fine volume, creditable alike to author, translator, publisher and printer, is an impressive evidence of the great progress in organic chemistry. The terpenes and congeners are the important ingredients in the essential or volatile oils, and the investigation of them has been undertaken both from the purely scientific side and from the practical point of view. A generation ago, the subject matter of this book would have been comprised in a few pages in an ordinary manual of chemistry and the description would have been general and disconnected. Years of patient and laborious investigation, often undertaken without certainty of substantial return, have elucidated the fundamental structure of these complex bodies and developed methods of research so that the greater difficulties are overcome. Those who have not kept in touch with the work in this line, will be almost startled in looking over the book. Structural formulas and molecular transformations have been thought out with ingenuity and care. The practical features are not within the scope of the work, but they have also been highly cultivated by special workers. It is not possible, nor indeed, will it be opportune, to set forth in detail the chemical questions considered in the book. We wish simply to call attention to its excellencies. The arrangement of the subject-matter is good, and the descriptions of the numerous fundamental and derivative substances are clear and sufficient. The translation is very well done. We especially commend the care taken with the general nomenclature. For example, "benzene," "naph-

thalene," "gram" and "liter" are used throughout, instead of the absurd "benzol," "naphthalin," "gramme" and "litre" so common in works on chemistry. So also we note "levorotatory."

The book is devoted to the description and theoretical chemistry of the subject; analytical and commercial questions are but incidentally noted. It is well printed in clear type on good paper. The numerous formulas, many of which are very complex, are of great value in elucidating the theoretical points. The volume is, therefore, a valuable addition to the English literature of a subject concerning which the original information is almost entirely in other languages. [H. L.]

Saunders' Medical Hand-Atlases. Atlas and Epitome of Otology. By Gustav Brühl, M. D., of Berlin, with the collaboration of Professor Dr. A. Politzer, of Vienna. Edited, with additions, by S. MacCuen Smith, M. D., Clinical Professor of Otology, Jefferson Medical College, Philadelphia. With 244 Colored figures on 39 lithographic plates, 99 text illustrations, and 292 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902.

One scarcely wishes to criticise any volume of this admirable series of Hand-Atlases and yet this latest book is somewhat of a disappointment. In his preface Professor Brühl says that he has endeavored to set forth "everything of importance in the elementary study of otology." He has also endeavored to make the book exhaustive and this has entailed a fragmentary, synopsis-like treatment of the subject. We know of at least one manual of the same size, written by an American, which seems to us simpler, clearer and, from a practical point of view, more complete. Nevertheless, the atlas is a good one and in it will be found the best German teaching and many fine illustrations. The plates are beautifully colored and are arranged in logical sequence; a clear description is attached to each and, in some instances, a history is given of the case from which it was taken.

The Epitome includes chapters on "Anatomy and Physiology," "Examination," and "Pathology and Treatment." The following will illustrate a few of the opinions and methods to which some aurists and laryngologists may take exception:

In inflammation of the ear moist heat is preferred to dry heat (p. 130). Catheterization is to be employed "only in cases in which it is impossible to perform Politzer's experiment, when it is desired to introduce medicinal substances into the tubes, or an accurate auscultation of the middle ear is indicated" (p. 100). In removing adenoids Professor Brühl does not advise complete general anesthesia which may explain why it happens that "recurrences are not uncommon" (p. 145). "After the operation the nose and ears are tamponed" (p. 144)! [W. G. B. H.]

Transactions of the Southern Surgical and Gynecological Association. Volume XIV, Fourteenth Session, held at Richmond, Va., November 12, 13 and 14, 1901. Published by the Association, 1902.

This volume of transactions contains the average amount of material with a few papers of more than ordinary interest. The papers on Hepatic Drainage, by John B. Deaver, and the report of a Case of Hepatotomy for Biliary Obstruction, by W. E. B. Davis, of Alabama, are especially interesting because of the rarity of the cases reported in this difficult branch of surgery. The paper on Nephro-ureterectomy, by J. Wesley Bovée, of Washington, is comprehensive in its scope and authoritative in its statement. Dr. Bovée has made a special study of ureteral surgery and in his clinical and experimental work has probably compassed more material than any other surgeon in this country. Dr. Morris' paper on Appendicitis contains some of the avoidable causes of disaster in that operation and is well worth reading. The transactions of the association as published in this volume show much scientific investigation. [W. A. N. D.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Fire at the Municipal Hospital.—Fire broke out on the third floor of the new wing of the Municipal Hospital, July 8. Physicians turned in an alarm, and, assisted by a number of nurses, prepared the patients in the adjoining wards for removal should the flames spread. The prompt work of the firemen of the 7 companies answering the call kept the flames confined to 2 rooms. Meanwhile the patients had been moved into the corridor and kept quiet by the nurses, who assured them that they were in no danger. The loss is estimated to be \$2000. The superintendent of the hospital and the employes under his command have been commended for their conduct at the time of the fire.

Contagious Diseases in Philadelphia.—The hot weather of the past week not only caused a general increase in the number of deaths, but caused an increase in most of the infectious diseases. While the number of cases of scarlet fever reported fell from 67 to 53, the number of cases of diphtheria increased from 34 to 37, those of typhoid fever from 31 to 46 and those of smallpox from 7 to 18.

Sulphuric Acid.—The first manufacturer of sulphuric acid in the United States was John Harrison, of Philadelphia, who, in 1793, produced 300 carboys per annum, the price of the acid being 15 cents a pound. Powers and Weightman began its manufacture in Philadelphia in 1825. While there were 25 sulphuric acid works in 1870, there were 127 in 1900, in the United States. It is interesting to note that nitric acid, hydrochloric acid, citric acid and tartaric acid were first manufactured in Philadelphia.

A New Quarantine Tug.—The tug *Neptune*, recently purchased by the U. S. P. H. and M.-H. S., has arrived at the quarantine station, at Reedy Island, Delaware Bay, having left Washington July 7, with the Surgeon-General and a party of Marine-Hospital officers on board. The *Neptune* is 105 feet long, 21 feet beam and 12 feet deep. She makes 14 knots an hour, has a 300 horse-power engine, and is to be used as a boarding boat for the national quarantine station.

Dr. Keen's Return.—It is expected that Dr. W. W. Keen, professor of surgery at Jefferson Medical College, will reach Philadelphia by September 20, 1902, after having completed a tour of the world. In spite of the rumor recently circulated, that Dr. Keen would retire, it is authoritatively announced that, upon his return, Dr. Keen will resume active practice.

The Manufacture of Bromine.—This was begun in the United States in 1846, at Freeport, Pa. In 1866 works were erected at Tarentum, Pa., and in 1868 at Pomeroy, Ohio. While the cost of bromine in 1866 was \$6 a pound, it is now but 28 cents per pound.

WESTERN STATES.

Plague in California.—During the month of May, 3 cases of bubonic plague were found in San Francisco, one May 19, one May 25 and one May 29, all 3 of which ended fatally.

Death of a Giant.—A man of 30, 8 feet 2 inches high, weighing 365 pounds, died at the Presbyterian Hospital, Chicago, July 11, of brain tumor. He had traveled extensively as a museum giant.

Malaria and Typhoid Fever Feared.—On account of the flood in Iowa last week, hundreds were rendered homeless. It is believed that the situation in the flooded districts, near Des Moines, Iowa, cannot be materially relieved for several days. When the water finally reaches its former channel, it is probable that epidemics of malaria and typhoid fever will prevail.

Centenary Hospital, St. Louis.—At the cost of \$115,000, Barnes Medical College has recently completed its new centenary hospital. This is a 6 story building, with accommodations for 150 patients, furnished with every modern convenience. It has 3 operating rooms and a large number of private wards. Any physician may treat his patients there.

Missouri State University.—Dr. M. W. Meyer has been elected professor of obstetrics and gynecology, and Dr. E. S. Noyes has been elected professor of diseases of the eye, ear, nose and throat.

CANADA.

The Population of Canada.—Since the close of the 35th. year of confederation, June 30, endeavors have been made to ascertain the progress made by the Dominion of Canada. During the past 35 years the area of Canada has been increased 6 times its original extent. Its trade has grown from \$161,000,000 to about \$500,000,000, and its railway mileage from 2,269 to more than 18,000 miles. Yet actual development of the enormous resources of the Dominion has scarcely begun. Canada's great drawback is the slow growth of its population. During 35 years its population has increased by only a couple of millions. Though possessing a territory nearly as large as Europe, it contains a population equal only to that of Belgium. It is certain that an enormous increase in population is bound to occur in the near future in Western Canada, at any rate.

Canadian Medical Association.—The annual meeting will be held in Montreal, September 16 to 18, 1902. The address in medicine will be delivered by Dr. Osler, of Baltimore, that in surgery by Dr. Stewart, of Halifax. Among others who will read papers are: Drs. Corlett, of Cleveland; D. C. Meyers, Toronto; A. L. Smith, Montreal; F. A. L. Lockhart, Montreal; J. Stewart, Montreal; G. S. Ryerson, and G. A. Peters, Toronto; A. H. Ferguson, Chicago; G. E. Armstrong, Montreal; C. A. Wood, Chicago; J. F. McDonald, Hopewell, N. S.; A. R. Robinson, New York, and D. A. Shires, Montreal.

MISCELLANY.

Cholera in the Philippines.—Up to July 12, the total number of cases of cholera, since the beginning of the outbreak, reached, in Manila, 2,181, with 1,718 deaths; in the provinces 12,476, with 9,357 deaths. There was a slight decrease in the number of new cases reported, possibly on account of the rain. The quarantine maintained by the U.S. P.H. and M.H.S. officials at Manila, and by officers at Hong-Kong and other Asiatic ports, is so rigid as to preclude the possibility of cholera being brought to this country. This is not only the opinion of the officials at Washington, but is also the stand taken by the health officer of the port of New York and by several officers who have recently returned from Manila. It is said that cholera is less prevalent in Hong Kong than it formerly was. Details have lately been published showing the many attempts of the natives to conceal the occurrence of cholera. An exhaustive investigation into the character and causes of the disease is at present being made by medical officers for the purpose of formulating measures for its prevention. A medical commission, headed by Assistant Surgeon R. P. Strong, is making a careful study of cholera bacilli. The prevailing epidemic has given army medical officers an opportunity for studying the spread of cholera thoroughly. Surgeon-General Forwood stated, July 11, that the epidemic was under control. While it is possible to enforce strict regulations among the troops, the natives are not at all tractable, and their own imprudence is responsible for the frightful mortality.

Cholera in China.—Cholera is spreading among the Chinese at Peking, but it is impossible to estimate the number of victims. A despatch from Shanghai states that cholera is raging in all towns along the Kweilin River in Kwansi province. Three thousand persons have died in Pinglok, and more than 10,000 in Kweilin.

Cholera in Arabia.—Cholera, which had completely disappeared from the Hedjaz at the end of the recent pilgrimage, broke out again about June 1, in Yemen, Arabia. It is probable that infection was carried south by pilgrims returning from Mecca. The outbreak was first reported at Camaran, May 10. Between May 16 and 20, 200 cases, with 80 deaths, were reported in the town of Sabia. Since that time the disease has spread to neighboring towns.

Bubonic Plague in Russia.—Under date of July 11, the U. S. Consul at Odessa cabled the State Department that bubonic plague had appeared there.

The Rush of the Professions. One of the reasons given for the decrease in marriage in big cities is the overcrowding of the professions. This comes as a result of vanity, young men becoming professional men without the slightest native aptitude. The young men who suffer and who cause the profession to be degraded are those who are swept along by vanity, desiring to rise above their fathers or to inherit a father's celebrity. Probably one-fifth

of those who were graduated in law and medicine earn a living outside of their original profession.—*Boston Journal.*

The Plague in Egypt.—Bubonic plague, which has for the past 2 years been raging in the interior of Egypt, is now spreading toward the sea coast. It has already reached Alexandria, and threatens Cairo. From May 16 to 29, 48 new cases, with 31 deaths, were reported in Egypt. The authorities have lately begun to exterminate the rats, which have been known to leave places attacked by the plague, carrying the germs to other districts.

Interstate Traffic in Virus, Serum and Toxin.—The measure for regulating interstate traffic in viruses, serums, toxins and other analogous products, which became a law July 1, provides for a board whose duty it will be to promulgate the necessary regulations to govern the issue, suspension and revocation of licenses for the maintenance of establishments for the propagation and preparation of these products, applicable to the prevention and cure of diseases of man, for sale in the District of Columbia, or to be sent from any State, territory or the District of Columbia into any other State, territory or the District of Columbia, or from the United States into any foreign country, or from any foreign country into the United States. Licenses will only be issued upon condition that the licensees permit the inspection of the establishments where said articles are prepared. After 6 months from the promulgation of such regulations, these products must be prepared in an authorized establishment, and each package must be plainly marked with the name of the article, the name, address and license number of the manufacturer, and the date beyond which the contents cannot be expected, beyond reasonable doubt, to yield specific results. The penalty for the violation of this law is a fine not exceeding \$500, imprisonment not to exceed one year, or both.

Notes.—Guatemala, with a mortality of 41 per 1000, is the most unhealthy country in the world; on the other hand, New Zealand, with a mortality of 11 per 1000, is the healthiest country in the world.—A celebrated physician asserts that the additional height and weight of Britons and Americans in the last half century are chiefly due to the increased consumption of sugar.—No branch of medical learning has progressed faster than the study of infectious diseases.—According to the *Family Doctor*, all good after-dinner speakers are dyspeptics, this state of things being attributed to the effect of the nervous strain incidental to the preparation for the speech to come.—It is said that a flowering plant abstracts from the soil 200 times its own weight in water.—People usually live longer in islands and small peninsulas than on continents. Barbadoes, Greece, Madeira and the Shetlands are all favorable to long life.—The average duration of life in towns is calculated at 38 years; in the country at 55 years.—The great anesthetic, chloroform, was discovered by Guthrie, in 1831, and was first employed in surgical operations in 1847.—Onions are said to be a preventive and often a cure for malarial fever.—The United States has now the third largest Hebrew population of any country in the world. One in every 70 is a Jew.—Every town in Mexico has a public bath-house.—The mean annual temperature, in the shade, of the City of Mexico, for the period of twenty-five years past, has been 59.79° F.—All the vacancies in the naval medical service are now filled for the first time since the Civil War.—The mortality from tuberculosis has been reduced 35% in the last 15 years.

A New Hospital in Salvador.—The new hospital in Salvador City was opened about the end of June. All the patients who were in the old hospital have been transferred to the new hospital, which is modern in all respects. The sanitary condition of the city is excellent.

Obituary.—Dr. George E. Tyler, at Denver, Col., July 7.—Dr. Isaac S. Eshelman, at Oakland, Cal., July 9.—Dr. James Thomas Jelks, at Hot Springs, Ark., June 24, aged 53 years.—Dr. J. C. Batts, at Norfolk, Va., July 10.—Dr. Frank B. Fisher, at Springfield, Ill., June 22, aged 30 years.—Dr. Jacob F. Meyer, at Buffalo, N. Y., June 27.—Dr. Edward Richardson Bennett, at Chicago, Ill., June 30, aged 41 years.—Dr. John A. Boylan, at Ann Arbor, Mich., June 26, aged 40 years.—Dr. William Milton George, at Cambridge, Ohio, June 22.—Dr. J. N. Cheney, at Atlanta, Ga., June 26.—Dr. Andrew A. Elliott, at Steubenville, Ohio, June 11, aged 48 years.—Dr. John Newell Tilden, at Peekskill, N.

Y., July 10, aged 54 years.—Dr. David P. Fleming, at New York City, July 9, aged 36 years.—Dr. John P. Hale, at Charleston, W. Va., July 11, aged 78 years.—Dr. John K. Reinoehl, at North Annville Township, Pa., July 10, aged 44 years.—Dr. George F. Watton, at Nashville, Ind., July 12, aged 74 years.—Dr. John H. Tucker, at Salt Lake City, Utah, July 11, aged 53 years.—Dr. Brent Palmer, at St. Louis, Mo., July 12.—Dr. George L. Hicks, at Cambridge, Md., July 13, aged 63 years.

GREAT BRITAIN, ETC.

Coronation Honors.—Among the physicians honored by King Edward VII, June 24, in connection with the coronation, were: Lord Lister, Sir Frederick Treves, Bart., Sir Francis Laking, Bart., Sir Victor Horsley, Sir William Macewen, Sir Isambard Owen, Sir Thomas Richard Fraser, Sir John Halliday Croon, Sir William Whitla, Sir H. G. Howse, Sir Thomas Myles, Sir William J. Hollins, Sir Alfred Cooper, Sir A. Conan Doyle and Sir Charles Wyndham.

Medical Service of Intercession for the King.—A service of intercession for King Edward VII. was held at St. Paul's Cathedral, London, July 2, by the guild of St. Luke, organized on behalf of the medical profession. Over 400 medical men were present, wearing their scarlet hoods.

Births and Deaths in London.—A child is born every 3 minutes and a death is recorded every 5 minutes in London, England.

Victoria Hospital for Children.—The foundation stone of the new building was laid July 2, by Princess Louise. H. R. H. then left for a visit to the Chelsea Hospital.

The King's Sanatorium.—A site for the King's sanatorium for consumption has been purchased at Midhurst, Sussex.

Personal.—Dr. St. Clair Thomson has just been elected corresponding member of the American Laryngological Association.

Physician-Actor-Knight.—It is not generally known that Sir Charles Wyndham, the prominent English actor who has recently been raised to knighthood, not only studied medicine, but served on the medical staff of the U. S. Federal Army during the Civil War.

An Appointment.—Dr. James H. Nicol has been appointed professor of surgery in Anderson's College Medical School, Glasgow, replacing Dr. Kennedy Dalziel, who was recently retired.

The Excess of Women in Great Britain.—There is an excess of 1,082,619 females in England and Wales alone by the census of last year, so that many women cannot marry, however much they might be disposed.

CONTINENTAL EUROPE.

Fourteenth International Medical Congress, Madrid.—The president of this congress, to be held in Madrid, April 23-30, 1903, is Professor Julian Calleja y Sanchez, Dr. Angel Fernandez-Cáro is the general secretary, and the general treasurer is Professor José Gomez Ocana. The subscription for membership, which must be paid before the opening of the congress, is 30 pesetas (\$6). The official languages of the congress will be Spanish, French, English, German and Italian. Papers to be read, accompanied by a short abstract, should be sent to the secretary before January 1, 1903.

Dr. Garnault Still Well.—Dr. Garnault, who inoculated himself with bovine tuberculosis 3 weeks ago, has yet shown no ill results, although the inoculated arm appears to be developing local symptoms of the disease.

An Error.—In our issue of March 29, page 559, the death of Dr. Emil Holub was erroneously reported. It is now known that this well-known African explorer did not die from complications of malaria as was stated. He is, however, still suffering from malaria at his home in Vienna.

Swiss Pediatric Society.—The inaugural meeting of this association was held May 31, 1902, in the new Children's Hospital, Berne, Switzerland.

Obituary.—The following deaths are announced among medical men on the Continent: Dr. Dneilly, formerly professor of pathology, at Amiens, France; Dr. F. Nawrotsky, professor of physiology, at Warsaw, Russia, and Dr. Otto Zinsmeister, physician-in-chief at the Troppau Hospital, Austria, aged 42 years, of blood-poisoning following operation.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

June 28, 1902. (No. 2165.)

1. The Cavendish Lecture on Some Phases of Inflammation of the Appendix. FREDERICK TREVES.
2. Clinical Lecture on Enterectomy Contrasted with Artificial Anus. ARTHUR E. BARKER.
3. Duodenocholedochotomy for Retained Gall-Stones at the Duodenal End of the Common Bile Duct. HENRY BETHAM ROBINSON.
4. A Case of Removal of the Gall-Bladder. F. A. SOUTHAM.
5. The Operation of Jejunostomy, with a Report of Two Cases. B. G. A. MOYNIHAN.
6. Localized Peritonitis in Enteric Fever with Marked Symptoms of Onset: Laparotomy: Recovery. W. A. MACKAY.
7. Perforation of the Appendix within a Hernial Sac: Resection of the Cæcum and Ileocecal Junction: Recovery. J. BASIL HALL.

1.—Treves points out that the symptoms of appendicitis are due to involvement of the peritoneal covering of that organ and that extensive changes in the appendix, even amounting to extensive ulceration of the mucous membrane, may, and frequently do, exist without symptoms. The appendix is a portion of the intestinal canal and it possesses no exclusive pathology of its own. The only peculiarities that may be claimed for the appendix are that it ends in a blind extremity, that it favors the formation of concretions, that it is liable to disturbance of its bloodsupply from torsion and that its destruction leaves no function impaired. Treves calls attention to the fact that life in a tropical country has a marked effect in encouraging appendicitis among Europeans, to the intimate vascular connection between the ovary and the appendix, and to his belief that the most common factor in the etiology of an attack is a loaded cecum. The right-sided tender spot which can be made out in so large a proportion of healthy individuals is represented by the ileocecal valve. This spot was present in 24 out of 27 healthy medical students. The obliquely placed pipe-like structure which is often felt when palpating the right iliac fossa is not the appendix, but a localized contraction of the muscle fibers in the abdominal wall. The greater proportion of cases of appendicitis recovers spontaneously and the general mortality is probably not over 5%. Operations during an acute attack probably have a mortality of over 20%, and replases may occur after an operation carried out during the acute stage. Immediate operation is demanded in the ultra-acute cases and when suppuration has occurred; in all other cases the question of operation may be kept in abeyance for the first few days of the attack and may usually be left open for decision until the fifth day or later. [F. T. S.]

2.—Barker reports 12 cases of intestinal resection, 7 for gangrene subsequent to strangulation and 5 for carcinoma. Four died, 2 from peritonitis, one from pulmonary embolism and one from intestinal obstruction due to a fibrous band. Barker thinks primary enterectomy ought to yield better results than the formation of an artificial anus in these cases. [F. T. S.]

3.—Robinson reports 2 successful cases of duodenocholedochotomy for gall-stones incarcerated at the duodenal end of the common duct. [F. T. S.]

4.—Southam reports a successful cholecystectomy performed for cholelithiasis with complete obstruction of the cystic duct. [F. T. S.]

5.—Moynihan reports 2 cases of jejunostomy for inoperable carcinoma of the stomach. Both patients lived about one month after operation, the agony of thirst and starvation being banished. The indications for jejunostomy are extensive cancer of the stomach when there is not enough

healthy stomach wall to be utilized for gastrostomy, general cicatricial contraction of the stomach dependent on the swallowing of caustics, and to give rest to the stomach in cases of hyperchlorhydria (Neumann) and persistent hematemesis (Cackovie). The jejunum may be cut completely across and the proximal end implanted into the distal portion a few inches from its divided end and the latter stitched to the abdominal wall (Mayde), or the operation may be completed in a manner similar to the Witzel gastrostomy. [F. T. S.]

6.—Mackay reports a case of **enteric fever** in which symptoms of peritonism were regarded as due to **perforation**; operation disclosed a localized peritonitis in the region of the lower ileum but no perforation; recovery followed. [F. T. S.]

7.—Hall reports a case of acute right inguinal **hernia** in a man, aged 23 years, in whom gangrene necessitated resection of the ileocecal coil. A **perforated appendix** was found in the sac. The Murphy button was employed to effect the anastomosis. Recovery was uneventful. A table of eight other cases in which a perforated appendix was found in the sac is given. [F. T. S.]

LANCET.

June, 28, 1902.

1. The Cavendish Lecture on Inflammation of the Vermiform Appendix. FREDERICK TREVES.
2. The Hunterian Lecture on Some Points in Practical Surgery Suggested by the Study of the Life and Work of John Hunter. REGINALD HARRISON.
3. A Note upon Amputation at the Hip Joint. EDMUND OWEN.
4. The Fixation of Movable Kidney by Means of Strong Carbolic Acid; Six Cases. THOMAS CARWARDINE.
5. Further Notes on the Use of the Nasopharyngeal Tube for Prolonged Nitrous Oxide Anesthesia. HARVEY HILLIARD.
6. On the Treatment of Incipient Bronchopneumonia in Infants. THEODOR ZANGGER.
7. Some Experiments on the Precipitins. ALDO CASTELLANI.
8. Some Practical Points in the Treatment of Congenital Torticollis. E. NOBLE SMITH.
9. Brief Notes on Three Cases of Auto-Intoxication; One Fatal. A. B. DUPREY.
10. Observations on Diet. IV. HARRY CAMPBELL.

1.—See abstract of *British Medical Journal* in the *Philadelphia Medical Journal*, this issue.

3.—Owen describes his method of performing **amputation at the hip joint**. The crural sheath is opened through an incision running vertically down from Poupert's ligament, and the common femoral vessels are secured in separate ligatures. A circular incision is then made round the thigh a little above the middle, and the bone sawn through at the same level; the remaining portion of the femur is enucleated through an incision running down from the top of the great trochanter. Some small branches of the sciatic, gluteal and circumflex arteries require attention. [F. T. S.]

4.—Carwardine gives a table of 6 cases of **movable kidney** which were operated upon by fixing the organ by sutures or gauze packing, and painting the whole surface of the kidney, except the hilum, with the strongest liquid carbolic acid. One patient had a transient hematuria following operation, which was attributed to tight suturing. [F. T. S.]

5.—Hilliard describes a **gas apparatus** to which are attached two tubes, one running to an ordinary mouth-piece, such as is used for nitrous oxide anesthesia, and a second which terminates in a curved tube, destined to be introduced into the nasopharynx. The gas is turned on to the ordinary apparatus and the administration is conducted in the usual way until the stage of light anesthesia is reached; the face-piece is then removed, the tube passed into the pharynx and the anesthesia continued. The average length of anesthesia in 100 cases was 2.75 minutes. The author claims that this apparatus renders the use of ether

in dental surgery unnecessary, that it is more convenient and economical than any other apparatus employed with the same object in view, and that it is free from danger to the patient and damage to the mouth, nose and pharynx. [F. T. S.]

6.—Zangger has had excellent results with hydrotherapy in **incipient bronchopneumonia in infants**. He claims that hydrotherapeutic treatment alone cuts short the duration of pneumonia. He points out, however, that bathing should be instituted early and not resorted to after two or three weeks, when the case is becoming more and more serious. He advises giving baths of 86° F., for 2 or 3 minutes at the onset of pneumonia, then reducing the temperature of the water to 76° F. The body of the patient should be rubbed with a sponge or cloth or with the hand, so as to promote skin reaction. If pneumonic symptoms continue, the bathing must be repeated at intervals of from 8 to 24 hours. For the relief of bronchitis he employs cross packs (kreuzbinden) which are applied in the following way: A linen bandage is placed in cold water (from 54° to 60°), is well wrung out and is applied to the chest thus: (1) Beginning under the right axilla, passing over the left clavicle and around the chest, back to the right axilla; (2) then around the chest horizontally; (3) from the right axilla to the left axilla and over the back to the left clavicle to the front. The pack is allowed to remain on the chest over night. On removing it, the chest must be rubbed with a cold, wet towel and then rubbed dry. [F. J. K.]

7.—Castellani details some experiments on the **precipitins**. He draws the following conclusions: (1) The blood-serum of animals treated with different preparations of natural albumins contains specific precipitins for the albumins. (2) The bloodserum of animals treated with unfiltered bacterial cultures produces a precipitate in filtered cultures of the organisms in question. (3) The serum of animals treated with filtered cultures of bacteria likewise develops specific precipitins, which produce precipitates in the filtered cultures of the same bacteria. (4) An exception was in the case of diphtheria cultures, the injection of which did not lead in his hands to the production of precipitins. (5) Animals which are treated with dialyzed typhoid cultures develop the specific precipitins in their serum. (6) There is a close connection between the agglutinins and the precipitins. [F. J. K.]

8.—Smith holds that division of the sternomastoid is usually required to cure the deformity engendered by **congenital torticollis**, and that a retention apparatus is generally unnecessary in the treatment of uncomplicated cases, either before or after operation. The open operation is desirable in the vast majority of cases, especially when the clavicular portion of the muscle is to be divided. A vertical incision, one and a quarter inches in length, is made in the depression between the sternal and clavicular origins of the sternomastoid, and each head of the muscle is isolated on a grooved director and severed. The head is maintained in a corrected position by means of sand bags until healing is completed. Massage and exercises may be necessary in the after-treatment, and, should there be a lateral curvature of the cervical spine, this should be dealt with separately. [F. T. S.]

9.—Duprey directs attention to 3 cases of auto-intoxication due to absorption of poisonous substances from the intestines owing to constipation. The first case was that of a woman, between 35 and 40 years of age, who suddenly became unconscious. The breathing was rapid and shallow, the pulse-rate 96 per minute and the temperature normal. The urine did not contain albumin. After an enema of soap and water with an ounce of castor oil had been administered, she regained consciousness. The second case occurred in a young man who suddenly became unconscious, but could be aroused by shaking, when he would open his eyes, talk incoherently and suddenly again relapse into the unconscious state. The heart and lungs were normal, and the urine did not contain albumin or sugar. After a free evacuation of the bowels he recovered. The third case was that of a child, 6 years old, who, while playing, dropped down and almost instantly expired. There was a history of constipation. The autopsy revealed fecal distension of the descending colon which appeared to be the cause of her death. No other lesions were found. [F. J. K.]

MEDICAL RECORD.

July 12, 1902.

1. Notes on a Few Cases of Hodgkin's Disease and Lymphatic Leukemia. MAX EINHORN.
2. The Treatment of Pulmonary Invalids in Favorable Climates. EARL S. BULLOCK.
3. Gynecological Electrotherapeutics.

BERNARD S. TALMEY.

4. Malaria as a Complicating Factor in the Diagnosis of Appendicitis. HENRY J. WOLF.

1.—Einhorn presents a résumé of the literature of Hodgkin's disease and lymphatic leukemia and reports 4 cases of the first condition and 2 of the second. The treatment of both diseases is the same. Attention to hygiene and diet as well as the medicinal treatment are important. Arsenic occupies the first place among drugs. Einhorn usually prescribes it in the form of Fowler's solution.

[T. L. C.]

2.—Bullock discusses the treatment of pulmonary invalids in favorable climates. Speaking of the climate of the Silver City region in New Mexico, he states that the mean annual temperature is 54° F.; dew point, 29; relative humidity, 46; absolute humidity, 1.71 grains; rainfall, 12.3 inches; cloudy days, 37. These figures convey very little to the uninitiated in climate lore, but, interpreted, mean that the region is characterized by warm winters, the result of the latitude, that of Savannah, Ga., and cool summers, caused by the altitude of 6,000 feet; the best testimony as to the dryness of the atmosphere. [T. L. C.]

4.—Wolf calls attention to the possibility of a mistaken diagnosis in those cases in which malaria is a complicating factor of appendicitis. He reports a case of malaria simulating appendicitis and one of malaria co-existing with appendicitis. [T. L. C.]

MEDICAL NEWS.

July 12, 1902. (Vol. 81, No. 2.)

1. Therapeutic Uses of Organic Extracts. O. T. OSBORNE.
2. Tendon Transplantation: Its History, Indications and Technique. J. HILTON WATERMAN.
3. A Case of Strangulated Hernia of the Ovary and Fallopian Tube. A. T. BRISTOW.
4. The Resurrectionists of London and Edinburgh.

FRANCIS R. PACKARD.

1.—Osborne states that **giantism** is caused by hypersecretion of the hypophysis, while **acromegaly** is due to a diminished or disturbed secretion of this gland. He quotes Moraczewski, who states that in acromegaly there is a tendency to retain in the body the tissue-building substances, such as nitrogen, phosphorus, chlorides and calcium. As to the action of retained phosphorus in the blood, it is noted that in the later stages there is distinct bone thinning. Hence it is quite probable that in certain stages of acromegaly too much physiological phosphorus, perhaps elaborated by the pituitary, is retained in the system, and pathologically many cases of acromegaly have shown this unexpected thinning of the bone [T. M. T.]

2.—Waterman, in his article on tendon transplantation, gives the following methods by which **tendons may be anastomosed**. Both may be completely severed and the sound central stump implanted into the paralyzed peripheral stump. The sound tendon may be completely divided and its central end implanted upon a slipper detached from the paralytic tendon, etc. The use of the slipper ingrafting appears to be indicated when the muscle to be aided is merely weak, but not actually paralyzed. In long-standing deformities it is advised to correct the position of the foot by mechanical methods at the outset. The author lays great stress upon the after-treatment of this disease. [T. M. T.]

3.—Bristow says that the **diagnosis of ovarian hernia before** inflammatory changes have taken place ought to offer no special difficulties. The presence of a small tumor in the inguinal, or more rarely the femoral, region, enlarging during menstruation, always tender to the touch even though no trace of inflammation be present, should warn us that we have an ovary to deal with rather than an epiplocele. Indeed, if we except the added tension and size of the tumor during menstruation, these cases resemble

their counterparts in the male of undescended testis. The influence of the menstrual epoch on such an inguinal or femoral tumor will, of course, be the strongest corroboration. The treatment of this condition is by operation either in the return of the herniated ovary to the abdomen or its removal. [T. M. T.]

THE NEW YORK MEDICAL JOURNAL.

July 12, 1902. (Vol. LXXVI, No. 2.)

1. Brief Notes on Mitral Insufficiency. THOMAS E. SATTERTHWAITE.
2. New Apparatus for Therapeutic Applications of the Röntgen Ray to the Larynx, Tongue, Rectum, Prostate, Cervix of Uterus, Vagina, Etc. E. W. CALDWELL.
3. A Case of Peliosis Rheumatica. CHARLES J. ALDRICH.
4. Otitis Media Purulenta Treated by the Dry Method. F. W. DAVIS.
5. Electric Light in Diseases of the Respiratory Organs. W. FREUDENTHAL.
6. Tetanus. KENNETH E. KELLOGG.
7. Polyhydramnios: Its Differential Diagnosis and Treatment, With the Report of Cases. EDWARD P. DAVIS.

8. A Case of Amaurotic Family Idiocy. A. HYMANSON.

1.—Satterthwaite gives the 3 cardinal signs of breaking compensation in **mitral insufficiency** as follows: (1) A systolic murmur at the apex conveyed to the left; (2) accentuation of the second pulmonary sound; (3) increased transverse dulness of the heart. In and after breaking compensation, the diagnosis must be based on the previous history, because the abnormal transverse dulness may be the only one of the 3 cardinal physical signs left from which to construct a diagnosis. If stenosis co-exists, as it does in from 70 to 80 per cent. of the cases, we must expect a systolic thrill around about the apex in from 15 to 60 per cent. and a presystolic murmur in at least from 10 to 30 per cent. In children or young people there may be a bulging of the precordia. [T. M. T.]

2.—Caldwell has devised an apparatus which can be placed in the mouth in such a position that the X-ray will be thrown directly upon the larynx. With the ordinary method of treating malignant growth of the larynx with the X-ray the improvement was exceedingly slow and the best results were obtained when the exposures were such as to cause a more or less unpleasant dermatitis on the neck. Therefore, it has been thought that this new method will give much better and quicker results. [T. M. T.]

3.—Aldrich reports a case of the above and gives a short synopsis of the subject. He states that Kaposi found that a succession of relapses extending over sometime is accompanied by nephritis or an organic heart lesion; Kinnicutt, Mollière and others have detected cardiac murmurs during the course of the disease; Oliver believes in the association of rheumatic purpura and ulcerative endocarditis; Immermann, Atkinson, Osler and others assert that this form of purpura is not complicated with endocarditis; Schönlein declares the disease to be hemorrhagic in character, accompanied by extravasations into the cutaneous layers without internal hemorrhages; Kaposi and Neumann have observed cases that manifested a pronounced tendency to recur annually, spring and autumn; Kaposi mentions that severe bleeding from the gums has been observed; Scheby-Busch says that bleeding from the mucous membranes occasionally occurs. [T. M. T.]

6.—Kellogg gives 8 points in favor of **carbolic acid in the treatment of tetanus**: (1) Actual figures indicate as many cures from the use of chemical agents as from antitoxin; (2) the use of phenol does not contra-indicate the administration of antitoxin; (3) there are no exact methods of measuring tetanic antitoxin; (4) the antitoxin of tetanus is not destroyed by carbolic acid solution; (5) inasmuch as the antitoxin is not a stable article, we are not justified in continually saturating the system (which would appear essential) with this agent, of which we know comparatively little. On the other hand, of carbolic acid we know considerable, and we have a definite and reliable method of ascertaining its action and the extent to which it should be used; (6) investigators have failed to save in-

fectured animals, even with immense doses of the antitoxin; (7) cases have been treated alternately: first with antitoxin and then with phenol, with the more satisfactory results during the administration of the latter; (8) three cases have been treated in New York recently with antitoxin, with 3 deaths. [T. M. T.]

7.—Davis says that **polyhydramnios** is dangerous to the mother from overdistension, relaxation, hemorrhage and increased danger of sepsis. The uterus must be completely emptied and made to contract. A hot intra-uterine douche of a one per cent. solution of lysol, tamponing with iodoform gauze, the hypodermic use of strychnine and ergot and other stimulation are necessary. Occasionally, after abdominal section, the excess of amniotic liquid has disappeared by absorption. [T. M. T.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 10, 1902.

1. The Nutritive Value of Alcohol. F. S. BENEDICT.
2. The Basis for the Uses of Alcohol in Therapeutics. A. R. CUSHNY.
3. The Influence of Alcohol upon Infection and its Use in the Treatment of Acute Infectious Diseases. S. J. MELTZER.
4. The Common Use of Alcohol. GRAHAM LUSK.
5. Report of Cases from the Second Surgical Service of the Children's Hospital, Boston. H. L. BURRELL, R. W. LOVETT and J. E. GOLDTHWAIT.

1.—Alcohol is rapidly and completely absorbed in the stomach. In moderate doses it is entirely oxidized in the body, but a small portion being excreted unchanged. But it does not build muscular or adipose tissue, thus failing in one of the most important food functions. It does, however, furnish a supply of heat by its oxidation. Excessive doses of alcohol lower the body temperature. The most accurate experiments give no positive proof that alcohol in moderate doses influences proteid metabolism any more than does fat. It frequently protects the body proteids and fat from consumption. In many cases, in moderate doses, it has a retarding action on many vital processes. The multitude of other materials of undisputed nutritive value renders the use of alcohol as a food unnecessary. [M. O.]

2.—Cushny states that alcohol deserves a place in therapeutics as a narcotic, to a less extent as a stomachic, and in certain conditions as a food. There is always danger of forming the habit. Yet, as with other drugs, the physician should be guided entirely by consideration of all its properties, estimating in each case whether the sum total of its effects, good and evil, will benefit the condition to be treated. [M. O.]

3.—Will be abstracted when concluded.

4.—Lusk reviews the history of alcohol as a beverage, quoting largely from the literature. It gives a flavor to food, acts as a narcotic, producing exhilaration followed by depression. It reduces the power to do physical and mental work, and to learn. It causes an increased flow of all the digestive juices. In large doses this becomes irritation, with decreased activity, dyspepsia, etc. [M. O.]

5.—Burrell reports a case of **double psoas abscess**; Lovett one of **Pott's disease**, psoas abscess and nephritis; and Goldthwait one of **marked separation of the pubic bones**, all in children. [M. O.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 12, 1902.

1. Muscular Insufficiency of the Mitral Valve.
 2. Résumé of the Histology of the Dental Pulp. V. A. LANTHAM.
 3. Pruritis Ani. Strong Heat Its Best Remedy. New Apparatus for its Application. EDMUND ANDREWS.
 4. Electrothermic Hemostasis in Abdominal and Pelvic Surgery. ANDREW J. DOWNES.
- 1.—Abstract will appear when concluded.
- 3.—Andrews has found heat an excellent remedy for pruritus ani, and has devised an apparatus for its application.

This instrument, so arranged that hot water constantly circulates through it, consists of a cylinder $\frac{3}{4}$ inch in diameter, which is conical at one end and into which an outlet pipe, about $\frac{1}{8}$ inch in diameter, is inserted, with a rubber-tube attached. There is a short tube opening into the side of the cylinder at the end farthest away from the conical surface to which is fastened the rubber-tube of a fountain syringe. The cylinder is inserted into the anus and warm water poured into the fountain syringe. Excellent results are reported with this method of treatment. [F. J. K.]

4.—See abstract of paper read before the American Medical Association, in the **Philadelphia Medical Journal**, June 21, page 1107.

AMERICAN MEDICINE.

July 12, 1902.

1. The Efficacy of Recent Vaccination. WM. M. WELCH.
2. Why Should we not Treat the Gall-Bladder as we do the Appendix? ROSWELL PARK.
3. A New Method of Bone Grafting. A. W. MORTON.
4. The Chemical Pathology of the Saliva and Pharyngeal Secretions (Sialosemeiology) as a Means of Diagnosis. D. BRADEN KYLE.
5. The Influence of Alcohol upon Infection and its Use in the Treatment of Acute Infectious Diseases. S. J. MELTZER.
6. A New Inhaler Especially Intended for Operations on the Eye or Face. C. W. LEFEVER.
7. Surgical Observations in Berlin. NICHOLAS SENN.
8. The Advance of Orthopedic Surgery. H. AUGUSTUS WILSON.

1.—Welch contributes a paper on the **efficacy of recent vaccination**. He states that he does not hesitate to say that after a recent successful vaccination an individual can dwell in an atmosphere surcharged with the most virulent variolous poison and live and breathe and eat and sleep there with safety. [T. L. C.]

2.—Park is a firm believer that the gall-bladder and the appendix, which resemble each other so closely, should be treated when diseased by precisely the same surgical methods. [T. L. C.]

3.—Morton reports what he claims to be the first successful case of **bone transplanting by vascular attachment from animal to man**. The patient had suffered from a compound comminuted fracture of the tibia and fibula of the right leg near the lower end. Five inches of the tibia were destroyed. The left foreleg of a dog was substituted for the necrosed bone and the leg encased in a plaster jacket for 5 weeks. The patient, 4 months after the operation, was able to walk about with his cane. The method employed is fully described in Morton's paper. [T. L. C.]

4.—Kyle believes that the **altered chemistry of the saliva**, which he has studied in a number of cases, presents many possibilities from an etiological standpoint. It is quite possible that many forms of **indigestion and diseases of the stomach and intestines** may be brought about by this means. He states, it is a well-known clinical fact that saliva from certain individuals is exceedingly poisonous, as is indicated by the infectious wounds produced by the bites of such individuals, showing that the saliva may be the site of poisonous pathological compounds. It is, according to Kyle, quite probable that some of the so-called reflex diseases, for example, **asthma**, may be due to a perverted salivary secretion. [T. L. C.]

THE UNIVERSITY OF PENNSYLVANIA MEDICAL BULLETIN.

March, 1902.

1. The Surgical Treatment of Sterility Due to Obstruction at the Epididymis. Together with a Study of the Morphology of Human Spermatozoa. EDWARD MARTIN, J. BERTON CARNETT, J. VALENTINE LEVI and M. E. PENNINGTON.

2. Student Life in the Middle Ages. ROSWELL PARK.
3. Melanosis of the Cerebrospinal Meninges.

D. J. McCARTHY and MAZYCK P. RAVENEL,

1.—Martin, Carnett, Levi and Pennington present a paper on the surgical treatment of sterility due to obstruction at the epididymis. The paper also includes a morphological study of human spermatozoa. The plates which accompany the paper are excellent. The sperm cell of the human subject has a great variety of form and size in each and every part. It is prone to exhibit strongly anomalous characters, as twin head or twin tails. Whether such monstrosities can fertilize the ovum is an unsolved question. If motility is essential to fertilization, the evidence would seem to be negative, since at no time have these forms or those possessing monster heads been seen to move. Motility would seem to be a more trustworthy proof of the fertility of spermatozoa than any afforded by microscopical study, and persistence of motility should, on general principles, form a fairly reliable index to health and vitality. The results of animal experimentation seem conclusive enough to justify performing an anastomosing operation upon the man when a childless marriage is dependent upon a double obliterating epididymitis. A case in which this operation was performed is reported. Consequent upon the operation the patient presented motile spermatozoa apparently healthy 12 hours after emission. The commonest local cause of sterility in the male is obliterating bilateral epididymitis of urethral origin. Bilateral epididymitis is comparatively rare. Permanent obliteration of the tube of the epididymis is its exceptional rather than its usual termination, and it is most effectually avoided by prolonged treatment. When the obliteration persists, it is in the tail of the epididymis. Azoöspemia resulting from obliteration in the tail of the epididymis can be easily and safely overcome by forming an anastomosis between the head or body of the epididymis and the vas. Ejaculations following this anastomosis swarm with motile spermatozoa. Whether these be fertile, and whether the vaso-epididymalanastomosis will persist, can be determined only by prolonged observation. In sterile marriages the fault certainly lies with the husband in from 10 to 15 per cent. of cases, probably in a still larger percentage. Though absence of motile spermatozoa is a proof of sterility, their presence does not necessarily demonstrate that the semen is fertile. [T. L. C.]

3.—McCarthy and Ravenel discuss the subject of excessive deposition of melanin pigments in the cerebral and spinal meninges, based on a study of 2 cases, one in a cow on which the pigmentation was extreme and the other in a human being in which the pigmentation was slight. Both these cases are examples of excessive deposit of pigment in tissues in which it is found normally in small amounts. In neither of them had the pigmentation any relation to the pathological process which caused death. They believe that the pigmentation was the result of metabolic action of the tissues on the hemoglobin pigments. After blood extravasation into different tissues there is found a brownish or black pigment giving a negative reaction for iron and spoken of as melanin. It is very probable that there are several different pigments of varying chemical composition described under the general name of melanin.

[T. L. C.]

AMERICAN JOURNAL OF THE MEDICAL SCIENCES. March, 1902.

1. The Medical and Surgical Aspects of Gangrene of the Lung. F. PACKARD and R. LE CONTE.
2. Scarlatinous Empyema of the Anterior Superior Squamomastoid Cells. C. BURNETT.
3. Empyema of the Frontal Sinus; Some Observations on Its Treatment. G. RICHARDS.
4. Diagnosis of Latent Frontal Sinusitis.
GEORGE SHAMBURGH.
5. Causes of Salpingitis Other than Gonorrheal.
JOHN DEEVER and EDWARD MOORE.

6. An Experimental Investigation of Puerperal Pyemia.
F. GÆRTNER.
7. Report of a Case of Hemi-anesthesia of Over Eight Years' Duration, Resulting from Destruction of the *Cuneiform Sensitif* and Lenticular Nucleus Without Direct Implication of the Optic Thalamus.
F. DERCUM and W. SPILLER.
8. The Importance of Proper Dietary Regimen in the Treatment of Chronic Heart Affections, and an Attempt to Formulate some Rules Therefor.
H. ILLOWAY.
9. A Contribution to the Study of Primary Sarcoma of the Tail of the Pancreas. M. KAKELS.
10. The Clinical Significance of Chronic Urethral Discharge. H. CHRISTIAN.
11. The Sanitary Measures to be Adopted After Floods.
GEORGE SOPER.
12. Report of a Case of Dermoid Cyst of the Mouth; Critical Review of the Literature. C. CUMSTON.

1.—The patient, a man, 42 years of age, had suffered for 4 months from cough and profuse expectoration, pain in the right side of the chest and impairment of the percussion note below the third interspace on the right side. Otherwise the physical signs were negative. The sputum was mucopurulent and greenish, but did not contain tubercle bacilli. The blood was almost normal. There was very little fever until late in the course of the disease, when he began to have irregular rises of temperature. He then began to expectorate small clots of blood, became emaciated, and retraction of the interspaces on the right side could be made out. He was then transferred to the surgical wards with a diagnosis of probable bronchiectasis, probably associated with pneumonic consolidation in the lung. An interesting symptom was the fact that, when the patient lay on the left side, the cough was aggravated, and in addition there was some clubbing of the ends of the fingers and toes. The patient also had myxedema over the whole chest. The odor of the sputum was extremely offensive, and was characteristic of bronchiectasis or pulmonary gangrene, and therefore a diagnosis of gangrene of the lung secondary to bronchiectasis was made. Dr. LeConte, in discussing the surgical features of this case, calls attention to the danger of exploratory puncture, which he believes should be used only at the operation. The operation consisted in the excision of a portion of the seventh rib, and showed at once a gangrenous area of the lung. This appeared to be single, and was gently swabbed out with a piece of gauze, a rubber drainage tube inserted and a dressing applied. In these cases the character of the operation is influenced by the presence of absence of adhesions. If adhesions are absent, the ribs may be resected for a considerable distance in the search of some local adhesion, or the lung may be stitched to the parietal pleura. When no adhesions exist, the lung should never be grasped and opened, because it almost invariably gives rise to acute pleurisy. The subsequent course of this case was unfavorable, and the patient died on the twentieth day after the operation. The autopsy showed a low grade inflammation of the whole of the right lower lobe of the lung surrounding the gangrenous area. [J. S.]

2.—The patient, a girl of 13, was at the end of the fourth week of an attack of scarlatina, from the beginning of which she had suffered from pain in the left ear. The latter had been treated by syringing with peroxide of hydrogen and by plugging the meatus with cotton, which Burnett believes to have been the cause of the mastoiditis. When examined, the left cheek was swollen, and just above the upper wall of the auditory canal there was a pinkish fluctuating point. The tympanic membrane was slightly softened and perforated. The following day the fluctuating point was opened and 3 fluid ounces of creamy odorless pus evacuated. A probe passed into it presented just beneath the left eye. A female catheter was used as a drainage tube and the wound dressed. Pus was again evacuated the next day and swelling of the cheek gradually subsided, although drainage was never perfect. Therefore a thorough exploration of the mastoid region was made and a counter opening in the cheek near the angle of the lower jaw to promote drainage. A small perforation was found in the mastoid bone, but otherwise it was normal. After thorough drainage had been established, the patient rapidly recovered with normal hearing. Burnett insists

upon the danger of hydrogen dioxide in disease of the middle ear, and reports an additional case in which its use apparently caused mastoiditis. [J. S.]

3.—Richards contributes a very valuable paper upon the anatomy of the frontal sinus with especial reference to the evacuation of empyema of this cavity. He mentions some remarkable cases in one of which the patient was operated upon repeatedly for chronic suppuration of the frontal sinuses following typhoid fever, and, in spite of apparent cure and improvement after each operation, the condition invariably returned. He thinks that the prognosis in these cases is favorable, but that they will recover very slowly, and only after vigorous intervention. An important matter is of course to obtain and maintain free drainage until the bone has become healthy. If an external operation is required, Richards prefers to make the opening between the supra-orbital notch and the nose just beneath the ridge. He gives a number of details regarding the operation and subsequent treatment, for which we must refer the reader to the original article, and also describes operations suggested by various other authorities. [J. S.]

4.—Shamburgh discusses latent frontal sinusitis. The symptoms are frontal headache, usually dull or heavy, and sometimes severe and throbbing. There may be tenderness on pressure and often signs of secondary degeneration around the frontonasal duct. There is often a red edematous area along the concave edge of the middle turbinate body. If the sinus is inflated through the sound by the Politzer method, there may be relief for some time. A discharge of pus into the middle meatus is also a sign of frontal empyema. As, however, none of the signs are positive, the ultimate diagnosis must be made upon the actual demonstration of pus in the sinus. This is best made by the introduction of a catheter into it. It may be necessary as a preliminary operation to remove polypi, and often the anterior end of the middle turbinate body before the catheter can be inserted. It is well, before inserting the catheter, to find out the exact location and direction of the foramen, by means of a probe. As it is sometimes difficult to be certain that the end of the probe has entered the sinus, Shamburgh has been in the habit of examining his patients afterward by means of the X-rays, when the exact position of the probe can be readily determined. A small amount of fluid is then thrown into the sinus, and the presence of pus can be readily determined. If, however, the catheter cannot be passed into the sinus, it is sometimes possible to determine the source of the pus by catheterization of the other openings into the nose, and proving that it comes from none of them, or, in some more difficult cases, by direct puncture of the sinus, either through the nose or from without. [J. S.]

5.—Deaver and Moore discuss some of the causes of salpingitis. Among these tuberculosis and gonorrhea are of course the most important. They think that other cases of septic infection may be due to douching, insertion of the sound into the uterus and similar procedures. In many cases there is post puerperal infection. It is interesting to note that usually the right Fallopian tube is involved.

[J. S.]

6.—Gärtner has performed a number of experiments with the object of showing that pyemia may be produced by the staphylococcus as well as by the streptococcus, particularly with the view of disproving that the staphylococcus is the only infectious agent in puerperal pyemia. The chief course of the experiments was to insert a piece of sterile cotton wick, soaked in bouillon culture and rendered hard by coating with gum arabic, into one of the jugular veins. It was found that, under these circumstances, pyemia invariably occurred, although very often the suppurating process was rather local than general. As a result of his experiments, he concludes that Metschnikoff's theory of phagocytosis cannot be correct, because he never found cocci in the leukocytes; rather it appeared to him that the leukocytes were caused to decay (*sic*) by the cocci. He believes that the principal agent causing the transformation of physiological thrombi into pathological thrombi is pus germ. He looks upon the decay of the leukocytes as of considerable importance in the formation of the thrombus. In regard to the number of germs required to produce lesions, he found, by plating from his wicks, that, in each piece of wick inserted, anywhere from 80 to 1000 cocci were present. As these figures differ considerably from those

obtained by others, he concludes that virulence has more to do with infection than a great number of micro-organisms. References are not given. [J. S.]

7.—Dercum and Spiller report the case of a man, 49 years of age, who, at the age of 42, suddenly fell fast asleep while at work, and when awakened, his right arm, leg and right side of the face were paralyzed, and there was complete loss of sensation in the right half of the body. Speech and motion returned in about 3 months, but the hemianesthesia persisted. This hemianesthesia was slightly variable; less persistent on the trunk than elsewhere, and the limit moving backward and forward. It involved all points of cutaneous sensation. The reflexes on the right side were increased, and a diagnosis was made of lesion involving the posterior third of the posterior limb of the internal capsule, and, on account of the existence of a right-sided hemianopsia, it was supposed that the fibers of the optic radiation were also involved. The patient developed nephritis and finally died. At the autopsy, a cyst was found in the left cerebral hemisphere, which appeared to destroy almost entirely the left lenticular nucleus, and the extreme posterior portion of the posterior limb of the internal capsule, and involved the fibers of the optic radiation. The optic thalamus was not implicated, with the exception of a slight atrophic change in the pulvinar, evidently due to the destruction of the optic radiation. The area of the *carrefour sensitif* was also involved. The case seems to prove that organic hemianesthesia may be caused by a lesion situated as described without implication of the optic thalamus. [J. S.]

8.—Illoway believes that the stomach influences the heart either by way of the vagus or by direct contiguity. When the vagus is irritated, the heart may be unfavorably affected, and the results in chronic heart disease will be deleterious. He reports some cases illustrating these points. The first, a woman of 57, who, after a severe nervous shock, developed a tendency to nervous paroxysms and occasionally palpitation. She grew abnormally stout, was reduced by treatment, but her nervous condition remained bad. Finally, she became profoundly emaciated and had attacks in which the rapidity of the heart's action increased greatly. She had a fear of something dire impending and became excited. There were some uneasy sensations in the stomach. The heart showed increase of superficial dullness, the sounds were clear but weak; the action was somewhat irregular. The abdominal organs were apparently normal, with the exception of slight loss of muscular tone. A diagnosis of cardiac dilatation was made, probably associated with some gastric disturbance, and the treatment was therefore directed to the latter organ. She improved very rapidly, gained between 65 and 70 pounds, and apparently was completely restored to health. A case illustrating the influence of the stomach upon the heart by contiguity was that of a man, 30 years of age, who had had an attack of acute rheumatism. After this he had some cardiac disturbance, chiefly manifested as dyspnea after meals. He emaciated rapidly; an examination showed a systolic murmur heard at the apex and base, and a diagnosis was made of aortic obstruction and mitral regurgitation. The heart was somewhat enlarged. The diet was carefully regulated; a tendency to constipation was combated, and the patient rapidly improved. At the same time he was given strophanthus. Another case, a man of 26, had had some heart trouble for 6 years. He was constipated and had some of the symptoms of tricuspid regurgitation. His diet was also regulated and he soon improved. Subsequently he started to work hard, became worse and finally died. Illoway believes from these cases that the following diet is desirable in heart cases. Bulky foods and foods producing flatulence must be excluded. Only easily digested foods, cooked in the most hygienic manner, can be permitted. Meals should be small and the interval between them must be sufficiently long for the stomach to empty itself. Practically the diet consists of milk, stale bread, a small quantity of meat and a small amount of tonic. The food is to be taken moderately warm, and the patient must stop eating while still hungry. [J. S.]

9.—Kakels reports the case of a woman, 51 years of age, who, 6 months before, developed a feeling of heaviness in the left hypochondriac region, followed by gradual loss of flesh and strength. A tumor was felt in the left side of the abdomen; it was dull, slightly movable and gave signs of

semifluctuation. There was considerable anemia and moderate leukocytosis. An operation was accordingly performed, and a tumor, filled with grumous material, found growing from the tail of the pancreas. It could not be removed, and, shortly after the operation, the patient died. Examination of the growth showed it to be a mixed-cell sarcoma. Kakels calls attention to the rarity of these tumors, and to the great difficulty in their recognition during life. [J. S.]

10.—Christian describes 3 forms of chronic urethral discharge: Gleet, prostaticorrhea and urethrorrhea. He gives a table of the differential diagnosis of these 3 forms. He believes that it is necessary to differentiate them on account of the differences in the treatment of each one.

[J. S.]

11.—Soper discusses the danger of epidemics following floods. He believes that the bodies of previously healthy men and animals killed by violence are not likely to be dangerous. Therefore, the danger of pestilence is probably due to sickness which may occur among the survivors. After floods the general sanitary officer of the State should take charge, or, if for any reason he cannot act efficiently, the aid of the United States Marine Service should be invoked. The general function of the sanitary officer is cleansing the premises. This should be thorough; should include at least partial disinfection and the disposal of all dead bodies. For dead animals and all forms of refuse, burning is the best method of disposal, and can be accomplished by sprinkling the bodies with resin and then piling wood upon them. For human beings, burial is the best method, and it may be well to line the graves with quicklime. [J. S.]

12.—Cumston contributes a valuable discussion of dermoid cysts of the mouth, and reports a case observed by himself occurring in a man, 21 years of age, which had been growing for 14 years. The tumor was painless and situated in the median line, and had gradually attained the size of a large lemon. It was oval, gave a sense of deep fluctuation, and interfered with speech and deglutition. It was extirpated by an incision in the submental region, and upon microscopical examination, was found to be lined with epidermal cells, a granular layer and finally the rete Malpighii. Hairs were also present; the sebaceous glands were found in the walls. In addition to this case, he had collected 41 other cases of dermoid cysts from the literature, in all of which the diagnosis was confirmed by microscopical examination. He divides cysts of the mouth into the dermoid and the mucoid. The former are congenital and arise as a result of imperfect development of the face. They usually commence insidiously; are always situated in the median line and divided by the raphe of the tongue. They often fluctuate, and occasionally exploratory puncture contributes to the diagnosis. Usually nothing comes away through the exploring needle, but when it is withdrawn, it may contain particles of caseous matter. In a few cases there have been other deformities of the face. [J. S.]

ARCHIV FUER KINDERHEILKUNDE.

1902. (Vol. XXXII. Nos. 1 and 2.)

1. Bacteriological Investigations in Scarlet Fever.
A. BAGINSKY and P. SOMMERFELD.
2. Scarlatinal Nephritis. ADOLPH BAGINSKY.
3. The Indications for Operation in Diphtheritic Stenosis of the Larynx. G. ALSBERG and S. HEIMANN.
4. Porencephalia. GEORG ALSBERG.
5. The Histogenesis of the Arterial System.
H. ROEDER.
6. The Assimilation of Phosphorus and Nitrogen in Older Children on Milk Diet.
P. SOMMERFELD and W. CARO.

1.—Streptococci were found in the pharynx of 441 children with scarlet fever, alone or with other micro-organisms. Diphtheria bacilli were also present in 22 cases. In the past year cultures were made from 138 cases, in all of which streptococci were found. In 4 children they existed in pure cultures. They were found in the pharynx with the first signs of redness, some being very virulent, others not at all virulent when inoculated into rabbits. Streptococci from the throats of children without scarlatina gave similar results. The cocci in the chains varied in size, and, with the Escherich-Gram stain, some became red, some

blue and some purple, in the same chain. Streptococci were also found in the cerebrospinal fluid in the 2 cases examined. The urine obtained by sterile catheterization in many cases gave streptococci. They were found in the heart's blood and bone marrow in every case seen at autopsy. No peculiarities were observed upon the different culture media. They quickly lost their virulence, but this increased on gelatine at 0°C., or ascitic liquid at 50°. Agglutination of streptococci by blood from scarlet fever patients did not occur. Many other experiments, with the detailed case-histories of 86 children with scarlet fever follow. [M. O.]

2.—Nephritis was the most common complication of scarlet fever noted at the Kaiser und Kaiserin Friedrich Kinderkrankenhaus, in Berlin. Some changes in the kidney structure were observed in those children who died inside of a week, while widespread parenchymatous nephritis was found in those who died in the third week of the disease. Of the 919 cases of scarlatina treated in 5 years, 88 had nephritis. In 34 cases, nephritis was present from admission, in the earliest case, on the sixth day. No relation exists between the severity of the scarlet fever and the occurrence of nephritis, for it may complicate a very mild case. The time of onset is of no prognostic value. There may be fever, no fever, or fever only just when the nephritis appears. The tension and fullness of the pulse increases when nephritis occurs, beside gaining in rapidity. In some cases the amount of urine passed and its specific gravity remain unchanged when nephritis occurs; in others it increases for a few days before nephritis develops. When uremia occurs, the amount of urine passed decreases. Albumin, casts and hematuria are seen commonly, but when general dropsy and uremia appear, the prognosis becomes unfavorable. Uremic symptoms may appear early in the disease. Of 18 cases, but 5 died. Of the 88 cases of scarlatinal nephritis, 11 died; 38 showed chronic nephritis and 18 recovered entirely. Cardiac hypertrophy rarely results. Baginsky orders bathing, rest in bed, with milk and water only. When dropsy develops, hot air baths are given. Many details of his treatment follow. [M. O.]

3.—Alsberg and Heimann have collected many tables of statistics showing laryngeal stenosis in diphtheria and its treatment by intubation and tracheotomy, primary and secondary. Since the use of antitoxin, the frequency of stenosis of the larynx has decreased from 1/2 to 1/5 of all cases; primary tracheotomy has fallen from 1/2 to 1/13 of all cases; secondary tracheotomy has decreased from 1/10 to 1/50; and intubation has risen from 1/30 to 1/10. The total mortality has diminished 1/2. Long series of statistics follow. By the use of antitoxin and sprays, operation may not become necessary. When the laryngeal stenosis becomes severe, intubation is indicated. Primary tracheotomy is indicated with asphyxia and collapse, pneumonia, heart disease, paralysis of the soft palate and diaphragm, marked swelling of the pharynx with necrosis, etc. Secondary tracheotomy is indicated when the symptoms of stenosis fail to disappear after intubation, though the lumen of the tube is not obstructed, when pneumonia, paralysis of the soft palate or diaphragm occurs. In infancy, however, intubation is not advised, on account of the small size of the parts and the narrow pharynx, for when the tube is in place, food can only be swallowed with great difficulty. [M. O.]

4.—Porencephalia is a defect in the surface of the cerebrum, with the formation of cavities which communicate with the subdural space or are only separated from it by the arachnoid. The case-histories of 4 such patients, aged 3 months to 2 years, follow, with detailed autopsy accounts. When the condition is congenital, as in these cases, it is probably due to the failure of certain cells to develop. Later a cavity forms, surrounded by normal growing tissues. Why porencephalia generally affects the region supplied by the artery of the Sylvian fissure, has not yet been explained. Perhaps a syphilitic endarteritis occurs, with softening and cavity formation resulting. Clinical symptoms and changes in the conformation of the skull vary with the position and size of the cavities. Kundrat believes that porencephalia may stop during development, may be widespread, may occur with hydrocephalus or with cicatrices. [M. O.]

5.—After a review of the literature and investigations upon the histogenesis of the arterial system, Roeder concludes that the junction of bloodvessels at acute angles is

physiologically necessary according to statical and mechanical rules, as formulated by Roux and Thoma; that this angle is always about 33° in the new-born infant; that the formation of a valve-like lamella is functionally needed; that the same rules explain the structure of the arterial vessels, especially their rich elastic and muscular elements; that the structure of Botallo's duct explains its function, and, finally, that, from Roeder's investigations, the coincidence of the greatest amount of executive ability with the smallest amount of tissue material in the anatomical structure of the arterial system can be understood.

[M. O.]

6.—Sommerfeld and Caro describe the results obtained in 3 children of 5, 6 and 7 years, upon absolute milk diet, one child taking 4 liters of milk daily. The milk ingested, the urine and feces passed, were examined daily for nitrogen by the Kjeldahl method, and for phosphorus by the Neumann method. In two cases only a trifle over 5% of the nitrogen was excreted in the feces; in the third case less than 4%, showing the wonderful nitrogen absorption in children. The phosphorus was almost all excreted in the first 2 cases, while in the last, a child with nephritis, more phosphorus was excreted than was ingested.

[M. O.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

February 13, 1902.

The Seventieth Birthday of Franz König.

O. HILDEBRAND.

1. Spontaneous Rupture of the Calculus containing Gall-Bladder, into the Free Peritoneal Cavity; the Peritonitis induced thereby and its Treatment.

FRITZ KOENIG.

2. Death from Chloroform through Cardiac Paralysis.

L. LAQUEUR.

3. Infection and Auto-infection. A. WASSERMANN.

4. The Substitution of the Flexors of the Lower Part of the Thigh for the Paralyzed Quadriceps Femoris.

F. KRAUSE.

1.—The case reported was a very interesting one from the diagnostic standpoint, as well as from that of treatment. A woman of 70 was suddenly taken with extreme abdominal pain, followed by the evidences of general peritonitis. It was impossible to make a diagnosis of the cause. Since, however, peritonitis evidently existed and the patient was in extremis, operation was undertaken, and it was found that the peritoneal cavity contained bile. The gall-bladder was investigated and found to be perforated. Several biliary calculi were discovered to be free in the peritoneal cavity. The gall-bladder was so necrosed that it was impossible to attempt to close it; it was, therefore, extirpated. The peritoneal cavity was thoroughly cleansed and the wound completely closed. The patient recovered without the occurrence of a bad symptom. The author gives an interesting discussion of the relation of gall-stones to peritonitis, and of the nature of the peritonitis occurring therefrom, as well as of the treatment of the condition. Numerous reports show that diffuse peritonitis is not frequently the result of biliary calculus, but there are but few observations of perforations of the gall-bladder in this condition. Hochenegg believed in his case the perforation occurred without necrosis of the gall-bladder; König, however, thinks that this does not occur, and says that one may consider that in practically all cases there are changes in the wall of the gall-bladder. The result of perforation depends upon the infectivity of the bile. From the reports, the cases appear to run a bad course, as most of them have ended fatally. The author believes, however, that this is due to the fact that they were allowed to go on for a long time without interference. In the earlier stages, bile itself has little infectivity; but, with stagnation of the contents of the peritoneum and increasing interference with absorption, resulting from the inflammation, the culture medium for bacteria becomes constantly improved, and bacteria acquire an increasing virulence. From this standpoint, he strongly recommends early surgical interference in these cases. The diagnosis is extremely difficult in most instances, and excessively difficult in those in which there have been no previous signs of gall-stones. The operation recommended by the author is the extirpation of the gall-bladder. He was obliged to do it in this

case, but he considers that in most instances it is probably the safest procedure. If the peritonitis has persisted for some time, or if the infection seems to be virulent, he advises drainage with iodoform gauze; otherwise the abdominal cavity should be closed. [D. L. E.]

2.—The death in this case was a very startling one. The boy had never been seriously ill and showed no abnormal physical signs. His cardiac condition had also been thought to be normal. He was anesthetized for the removal of one eye on account of changes resulting from trauma. He had been given chloroform for about a minute, and had probably not inhaled more than two grams, at most. He suddenly became much excited, the stage of excitement lasting about a minute and then being followed by a sudden pallor and general muscular relaxation; and the heart action quickly ceased. Artificial respiration was at once undertaken, and he was given diffusible stimulants subcutaneously: evidently, however, he was dead. The chloroform was investigated and found to be perfectly pure. The only changes of interest discovered by the post mortem examination were persistence and hyperplasia of the thymus gland (the boy was 14 years old), hypertrophy of the glands at the root of the tongue, and marked enlargement of the spleen. The author then discusses the fairly numerous cases that have been previously reported of sudden death in association with enlargement of the thymus, and reaches the conclusion that enlargement of this organ must be considered to place the patient in a certain degree of danger of sudden death, more particularly from anesthetics, and that such persons should never be anesthetized if it is possible to avoid it. The diagnosis of enlargement of the thymus is difficult, and its possibility is questionable; it is, however, usually associated with enlargement of the glands at the root of the tongue and frequently with tonsillar enlargement and enlargement of the posterior pharyngeal glands. If, therefore, enlargement of these glands—particularly of the lingual—and of the tonsil exists, he believes that, for safety's sake, we should consider thymus enlargement to be present. [D. L. E.]

3.—Wassermann speaks of Bier's constriction treatment as being a method of artificially increasing the local numbers of the complements and of the intermediary bodies. A similar condition may be produced by the local application of alcohol. He also notes that shutting out the liver from the circulation causes a decrease in some of the complements of the serum. Various chronic organic diseases also cause this; chronic suppuration likewise produces it. As to auto-infection and its cause, he notes, in the first place, that the presence of one infectious disease makes a person more liable to a secondary auto-infection, because the natural protectors of the system are already largely used up by the first disease. [D. L. E.]

4.—Extensive details are given of the condition of the patient before and after operation. The child became paralyzed, when about 18 months old, from acute anterior poliomyelitis. His chief difficulty was the paralysis of the right quadriceps femoris. When walking, he had to straighten his leg by the aid of pressure with the hands. The permanent flexion at the knee increased, however, and the boy's right leg was of little value to him. In general, the operation consisted in freeing the lower end of the biceps, passing it through the vastus externus, passing the gracilis, semimembranosus and semitendinosus through the vastus internus, and attaching all these muscles to the patella. The after-treatment is described in detail. The operation was carried out in January, 1898. In December of the same year the boy went about without using a cane and without pain. He did not tire readily, he could mount and descend steps easily; he was able to flex the knee joint somewhat and could straighten it perfectly. His position in standing was perfectly straight. A year later he had a fracture of the tibia, which was treated by the ambulant method in a plaster bandage. (To be continued.)

[D. L. E.]

February 20, 1902.

1. Renal Colic, Renal Hemorrhage and Nephritis.

H. SENATOR.

2. The Presence of Tetanus Bacilli in Commercial Gelatine.

E. LEVY and H. BRUNS.

3. The Agglutination of Tubercle Bacilli and the Value of this Agglutination. E. RUMPF and L. GUINARD.

4. Substitution of the Flexors of the Lower Part of the Thigh for the Quadriceps Femoris. F. KRAUSE.

1.—Senator's article is a criticism of the teachings of Israel concerning the surgical treatment of renal disease. He discusses the eleven chief statements made by Israel, leaving aside the method of treatment of the wound, and admitting that it is possible to overcome anuria produced by acute ascending nephritis by slitting the capsule of the kidney. He first refers to the statement that there are severe cases of nephritis in which the urine is free from albumin and casts; this he considers a well-recognized fact, and, hence, worthy of no further discussion. The same is true of the second statement—that there may be many casts in the urine without albumin, and also of the one that there are cases of nephritis with occasional attacks of profuse hemorrhage—the statement that there are unilateral nephritides he does not consider true in the sense that there are instances of unilateral Bright's disease. He then discusses the statements that nephritis causes a renal colic exactly resembling the colic of renal calculi; that there are bilateral cases of nephritis with unilateral colic; that nephritic hemorrhages may or may not be associated with colic, the hemorrhage not being the cause of the colic, but both being the result of the renal congestion; the further statement that a great many of the cases previously called nephralgia, hematuric nephralgia or angioneurotic renal hemorrhage, should be attributed to nephritic processes; and the final statement that incision of the kidney has a favorable effect, in many cases, upon the nephritic process and its symptoms. He gives a critical discussion of the cases reported by Israel, and believes that in eleven of the latter's 14 cases there was no evidence of congestive swelling and tension of the capsule, and that, therefore, any improvement in these cases could not have been due to a relief of tension. As to the presence of inflammation of the kidneys in these cases, he considers that, in 5 of those reported, nephritis was apparently present, that there were 2 cases of Bright's disease with a rapidly fatal issue, and that there were 7 others in which the presence of any inflammation was not demonstrated. He then states that even though an area of inflammation is discovered in the kidney, it is wholly improper to decide from this that the nephritis was the cause of the colic and hemorrhage that may have been present in the case. It cannot be denied that handling of the kidney may produce unfavorable results and that incision adds to any chronic inflammation present an adhesive inflammation with a contracting scar of the capsule. Senator believes that, if the theory that acute swelling of the kidney is the cause of hematuric nephralgia were correct, incision of the kidney would provide exactly the conditions that would produce an attack. If it were merely congestion that gave rise to the attacks, hemorrhage would be the best means of overcoming the attack. He thinks that the only condition in which tension can really be considered so great as to give rise to colicky pains is when the tension is produced by anuria; and in this condition, he believes, there is no doubt that nephrotomy may be a valuable and life-saving method of treatment, the main point in such an operation being, however, not to overcome the inflammation or hemorrhage, but to set up a proper flow of urine. Adhesions of the kidney he considers to be a frequent cause of colic. Such adhesions were present in Israel's 14 cases not less than 9 times, and they are frequently present in such instances. These adhesions, with the torsion of the kidney, which they are likely to cause, are probably an entirely sufficient explanation of the attacks of colic. The hemorrhages can probably be better explained through the action of small calculi, gravel, tubercle or other tumors, aneurysmal or varicose changes in the vessels, hemorrhagic diathesis, etc., than through inflammation; but there are certain cases in which no lesion can be found, and in which, nevertheless, hemorrhage occurs. In such cases, one may consider that the hemorrhage is neuropathic, and is due to vasomotor influences. In final conclusions, Senator states he does not believe it has been shown that hematuric nephralgia is due to inflammation of the kidney, nor that incision of the kidney is a satisfactory treatment for this condition. When good results have followed, he considers that they have been due to a breaking up of adhesions, to fixation of a movable kidney in its place or to similar effects. The diagnostic importance of incision of the kidney he considers undoubtedly great.

[D. L. E.]

2.—The authors have investigated a series of specimens of gelatine by dissolving 2 or 3 grams of the material in

100 cc. of bouillon, allowing the mixture to stand for 8 or 10 days in the incubator, filtering it through a Pasteur-Chamberland filter, and injecting the filtrate into animals susceptible to tetanus. The amount injected was from 0.2 to 0.4 cc. (into mice.) The method of Sanfelice was used, because the methods of direct culture are likely to be failures. In 4 of the 6 specimens which the authors investigated, tetanus bacilli were found to be present. They were also able to show the presence of the organisms in the unfiltered culture fluid; but injection of this fluid into animals is not to be recommended, because other bacteria (malignant edema, etc.) often caused death inside of 24 hours. This communication is very important in relation to the use of gelatine for controlling hemorrhage. It is stated by many authors that tetanus spores are killed by being subjected to moist heat at 100° C. for 8 minutes; but the present authors' investigations do not confirm this statement, a considerably longer time being necessary. It is not at all improbable that various tetanus bacilli show varying degrees of resistance. It is not possible to heat gelatine for any considerable period at the temperature mentioned, or even at a lower one, without destroying its gelatinizing power; it is, therefore, particularly important to determine whether the use of high temperatures interferes with the hemostatic action of gelatine. [D. L. E.]

3.—The authors have made comparative test of the methods of agglutination devised by Arloing and Koch. They have tested them in 107 cases, 29 of the patients belonging to the first stage, 41 to the second and 37 to the last. The diagnosis was confirmed by very definite physical signs in 58 cases; by the presence of tubercle bacilli or of a reaction to tuberculin, in the others. The result was positive in 84 per cent. of the cases; but in 17 only in a dilution of 1:5. They have not tried the reaction in non-tuberculous persons. In the great majority of cases the 2 methods give results which closely correspond with each other. The injection of Koch's bacillus-emulsion caused a very marked increase in the agglutination. Sixty-five per cent. of the patients in the third stage gave a reaction at 1:10, or more, when they were, at the same time, improving—a result contrary to those previously described. The authors also observed that, when the patients were practically cured or very greatly improved, the agglutination became much less marked. Of 20 patients that were practically cured, 8 gave no agglutination, 8 would react only at 1:5, and 4 agglutinated at 1:10, or more. A decrease in the agglutination, therefore, seems to be a good sign. The authors have tested a number of severe cases to see whether a negative serum reaction indicates very severe disease. In some of these cases they found this to be true, but in some the reaction was extremely marked; and when severe cases are improving, they usually show a good reaction. The use of the new tuberculin, when it causes improvement in the patients, also causes increase in the agglutinative powers, even in patients in the second or third stage of the disease; but whether the injections and the increase in the agglutination produces an increase in protective substances, cannot be stated. [D. L. E.]

NEUROLOGISCHES CENTRALBLATT.

January 16, 1902.

1. Contribution to the Knowledge of Periodical Disturbance of the Mind. ENNEN.
2. Topography of the Paralytic Degeneration of the Cortex and Its Relation to the Associated Centers of Flechsig. K. SCHAFFER.

1.—The first patient, a man of 69, was attacked with circular insanity at the age of 37. At the age of 66, during a maniacal period, he had an attack of apoplexy followed by motor aphasia. Immediately after this he became melancholic, and this persisted, although the motor symptoms gradually improved. From time to time, however, he had slight apoplectiform attacks which were followed by maniacal periods lasting a day or two. There was gradually progressive dementia. The second patient, a man of 53, was also suffering from circular insanity. He was admitted to the asylum in a state of maniacal excitement; after 7 months, however, he developed a daily alternation between mania and melancholia, although there were periods of excitement lasting several days, during which the maniacal condition became very much more severe. These cases are comparatively rare. Another patient

showing this daily periodicity was a man, 70 years of age, who had received 2 severe injuries to the head at the ages of 67 and 68. After the second injury, he complained of headache, became excited, restless, talkative, did not sleep, was unclean and diminished in weight. Later he developed a periodical form of insanity with the following cycle: During the day he would be quiet, then, toward evening, he became excited and this excitement increased until 4 o'clock in the morning, it then continued until the succeeding evening, when he again became quiet, slept through the night, and the following morning was tranquil and sensible. Through the day he would be quiet and in the evening recommenced the cycle. Ennen believes that these cases do not constitute a peculiar type of disease, but merely a peculiar course that may develop in the various forms of psychosis. In most of the cases the patients had arteriosclerotic processes, and, therefore, it is not impossible that the condition is produced by vasomotor or nutritive disturbances. Quinine is valueless in the treatment. [J. S.]

2.—Three cases of general paresis were characterized by the typical clinical picture terminating in paralytic dementia with paralysis. The early symptoms were megalomania and arthritis, paralysis of the facial and pupillary muscles, and were, therefore, selected for histological examination. Serial sections were cut in the sagittal and horizontal directions. The changes found were quite peculiar and gave reasons to believe in many cases, that the so-called association zones of Flechsig are particularly involved. In a sagittal section, it was shown that the frontal region was particularly affected. There was also some degeneration of the posterior and central convolutions, marked degeneration in the superior parietal lobule and a very slightly involved cuneus. Where the changes were slightest, they consisted largely in the reduction of the tangential fibers; where they were more pronounced, the radial fibers were also involved. Careful examinations of the other sections showed that the following conclusions were justified in these cases. Slight or no degeneration in the central convolution about the calcarine fissure and in the deep temporal convolution. Greatly degenerated: The frontal convolution, the parietal lobe, the posterior central convolution, the island of Reil and the temporal convolution. Moderately degenerated: The first and second occipital lobes. A second case showed practically the same changes. The third case was one of taboparalysis and the degeneration was extreme. No part of the brain escaped; the whole of the white matter taking on a pale blue color, a small amount of medullary substance being preserved in the anterior frontal and in the occipital lobes. Schaffer discusses his results of Cajal's investigation of the brain of fetuses and newborn children, which he believes were strictly in favor of Flechsig's hypothesis, and then calls attention to the closeness with which the degenerated areas of the brain which he studied corresponded to the association centers of Flechsig. The most important result of these investigations is, however, that in general paralysis the degeneration of the brain follows apparently certain definite rules in its distribution. [J. S.]

February 1, 1902.

1. Further Discussion of Asthenic Paralysis with Results of an Autopsy. S. GOLDFLAM.
2. The Eye Reflex or the Eye Phenomenon. W. v. BECHTEREW.
3. The Corneomandibular Reflex. E. v. SOELDER.
4. A Case of Infantile Tabes. M. BLOCH.

1.—Case I. A man of 25, a servant, had paresthesia in the back of the neck, then limitation of the movements of the head, and in the course of a week, disturbance of speech and swallowing, and weakness of the arms and legs. Two weeks later the paresis became so increased that the patient could not turn in bed. He was also incapable of moving the head and had to be fed. At the end of 4 weeks he began to improve; it was then noticed that the speech was nasal, there was diminished sensation in the mucous membrane of the buccal cavity, rapid fatigue on using the muscles of chewing and deglutition; bilateral lagophthalmos, diminution of the conjunctival and corneal reflexes, and von Gräfe's and Stellwag's symptoms were both present. All 4 extremities were weak. When the patient attempted to use his limbs, he became completely paralyzed, but a certain amount of power returned after

rest. His condition continued with characteristic remissions and exacerbations until gradually improvement commenced, first with the cranial nerves, and then extended to the extremities. Finally, 4 months after the attack, the patient was able to resume his calling, although he easily became fatigued. Then for 5 years his health was perfect, but at the expiration of this interval, a relapse occurred apparently limited to the depressor muscles of the lower jaw. This lasted for some time, and in the course of 4 weeks the patient was conscious that the old disease was returning. The symptoms then rapidly progressed, then there was a remission, but he did not become entirely well. The myasthenic reaction was obtained in the muscles, and there was persistent tachycardia. Later he had a slight anginoid affection followed by involvement of the lung, pleurisy and apparently weakness of the heart. The patient died suddenly in the night. A tumor was found in the right lung with metastases to other portions of the same lung and in the pleura; there was complete obliteration of the pericardial cavity. A diagnosis of lymphosarcoma was made without microscopical examination. The base of the brain was cut in an uninterrupted series of sections and considerable portions of the brain were examined also by the Nissl, Weigert and Marchi methods. The nerves were also investigated and portions of numerous muscles. In the latter were found circumscribed small or large collections of mononuclear cells, chiefly in the connective tissue between the muscle fibers. The question arose whether these represented metastases of the tumors or were inflammatory in nature. They corresponded exactly to the small areas found in the portion of the deltoid that was excised 2½ years before the patient's death. The paper is still unfinished. [J. S.]

2.—von Bechterew discusses McCarthy's reflex, which he claimed was first described by himself and reiterates his opinion that it is elicited by striking over the frontal bone, or in some cases even over the malar bone. He has examined a number of cases that have confirmed him in this opinion. The very fact that it can be elicited in such various situations is against the idea that it is produced by irritation of the supraorbital nerve. He also notes that in cases of facial paralysis it can be produced in the sound eye by tapping upon the paralyzed side. [J. S.]

3.—von Sölder describes a new reflex which he calls the corneomandibular reflex. It consists of a transitory movement of the lower jaw produced by touching the cornea. It cannot be elicited by touching any portion of the conjunctiva. It is best elicited by having the patient open the mouth slightly. It is rapidly fatigued after repeating, and it is very constant. It is probably a manifestation of some conjoint action. It often persists in comatose conditions after the corneal reflex has disappeared [J. S.]

4.—Bloch reports a case of tabes dorsalis occurring in a child of 17 years, one of 2 living children. His mother had aborted 5 times; 3 children had died in early infancy and one sister still lived. The child was weak at birth; he, however, showed normal intelligence, accomplished his school duties satisfactorily, and, finally, at the age of 16, he developed a feeling of anxiety, palpitation of the heart and an irresistible inclination to urinate. He showed, when examined, an infantile type. The left pupil did not react to light and was myotic. The right pupil was dilated and reacted to neither light nor accommodation. All reflexes of the upper extremities were normal. The patellar reflexes were lost; there was hypertonia of the muscles of the legs. There was distinct swaying when the patient walked with the eyes closed. Otherwise he was healthy. A diagnosis of locomotor ataxia seemed inevitable. [J. S.]

ARCHIV FUER EXPERIMENTELLE PATHOLOGIE UND PHARMAKOLOGIE.

Band XLVII., Hefte 3 und 4.

1. The Metabolic Products of Quinine. MERKEL.
2. Investigations concerning Feeding with Chondroitin Sulphuric Acid. KETTNER.
3. The Activity of the Living Mammalian Heart when Gases are passed through it. MAGNUS.
4. The Effect of Certain Poisons upon the Respiration. HAYASHI and MUTO.
5. On the Absorption of Carbohydrates through the Mucous Membrane of the Rectum. REACH.

6. Some Observations on Venous Pulses.

D. GERHARDT.

7. On the Influence of Alcohol upon Nitrogen Metabolism in Fever. OTT.

8. Concerning Bufonine and Bufotaline, the Active Principles of the Secretion of the Skinglands of the Toad. FAUST.

1.—The figures which are presented indicate that all but about 12 to 14 per cent. of the quinine ingested is destroyed in the organism of the dog, and that this destruction is not less at the beginning of a four-weeks' investigation than it is at the end. The undestroyed portion appears in the urine in the form of a basic metabolism product of quinine. The result of these observations upon clinical therapeutics is the evident fact that very large doses should be given when a decided effect of the drug is desired; since, when small doses are used, there is danger that all the quinine will be so rapidly destroyed that its effect will not appear. Hence, the value of subcutaneous injections of quinine.

[D. L. E.]

2.—Chondroitin sulphuric acid has been thought to be closely related to amyloid degeneration. Attempts have before been made, particularly by Oddi, to produce amyloid disease by the use of large amounts of this substance; but they have been unsuccessful. Kettner states that he has used the sodium salt of chondroitin sulphuric acid, the substance being obtained from over 1000 nasal cartilages of pigs. It was administered to rabbits in doses of from 2½ to 5 grams. There were no signs of amyloid disease produced. He, however, followed the effect of the acid upon the ammonia-production, and decided that in the organism of the rabbit there was no evidence that acids taken in increased amounts were ever neutralized by ammonia; and that, even when acids were used throughout a prolonged period, the animals did not become habituated to excreting an increased amount of ammonia in consequence. In other words, that the difference between the organism of the rabbit and that of the dog, in this relation, is not quantitative or relative, but absolute. [D. L. E.]

3.—Magnus decides that when the coronary circulation of an isolated heart, through which an artificial circulation is kept up, has oxygen passed through it, rhythmic contractions may last as long as an hour. If hydrogen is passed through instead, the same effect may be observed; but, if carbonic acid is passed through, the heart stops after a short time. Hence, complete anemia of the cat's heart is compatible with a continuance of rhythmic contractions, and the heart may beat for a long time without any nutriment. It may also beat without oxygen, or with minimal amounts of oxygen. This makes it evident how persistently the heart continues to beat, and how resistant it is to the most unfavorable conditions of nutrition. [D. L. E.]

4.—The results of the investigation show that andromedotoxin, in proper doses, produces exhaustion of the motor nerves to the extent that, when irritated by electricity or by normal voluntary impulses, they react normally, but are completely paralyzed by a short period of irritation, regaining their irritability after a brief period of rest. Nonfatal poisoning in rabbits affects the respiration centrally. The electric irritability of the phrenic is not changed. The cause of death in this poisoning is paralysis of respiration due to exhaustion of the phrenic. At this period, the irritability of the respiratory center is not yet completely paralyzed. [D. L. E.]

5.—Reach has carried out some rather elaborate studies concerning the rectal use of carbohydrate foods. He finds that clysters with 60 grams of sugar or dextrine in 120 to 200 cc. of water, or 100 grams of starch in 300 cc. of water, do not cause the respiratory gas-interchange to be modified to any notable degree; while the use of 60 grams of cane sugar *per os* does have a readily appreciable effect. The clysters mentioned did not cause glycosuria or dextrinuria. The method determining the amount of carbohydrates absorbed from clysters, by determining the deficit in the stools, is not at all satisfactory, because of the changes that these substances may undergo in the intestine. A certain amount of sugar is undoubtedly absorbed from clysters, but the quantity absorbed by rectal use is very much less than that when taken by the mouth. The absorption is also slower than when taken by the mouth. In the points just mentioned, the author is in direct opposition to the views of a number of earlier writers. The results with starch also contradict those of earlier experimenters; the

absorption of starch is but slight, and decreases after a short time. Consequently, Leube is incorrect in his belief that the slowness of absorption is compensated for by the fact that the clysters remain in the intestine a long while. Dextrine is absorbed more slowly than sugar, but in considerable quantities; and its use in rectal alimentation may well be studied further. It causes much less irritation of the intestine than does sugar. The use of dextrine in food-mixtures for infants has already been shown to be satisfactory in many cases. In a note, Reach states that the subject investigated took throughout one period thyroid extract, the conditions being compared with the previous and the subsequent period. During the thyroid period, there was evidently an increase in the gas-interchange—a confirmation of the results obtained by other recent workers. [D. L. E.]

7.—The influence of alcohol upon comparatively normal persons has been studied with great care, and recent work makes it practically certain that alcohol controls the destruction of albuminous tissues to some extent, although it has not yet been determined in how far the toxic effect of alcohol is overshadowed by its nutritive influence. There have been no satisfactory studies of its influence upon metabolism in febrile conditions. Ott has studied a patient with tuberculosis associated with distinct fever, and reaches the conclusion that alcohol in fever, as well as in health, tends to decrease the destruction of albuminous tissue to a degree equal to that of isodynamic amounts of carbohydrate. There is an extremely low excretion of nitrogen on the first alcohol day. This, Rosemann has also observed, and thinks that it is due to the effect of the alcohol upon the kidneys. Ott agrees with this view, more particularly because of the coincident reduction in the amount of urine. Further, alcohol definitely interferes with the absorption of the food nitrogen. Practical conclusions cannot be drawn from these results at once, but the author thinks that one may consider that alcohol is not a satisfactory food-stuff, because we have better at our command; but we may decide that, used in moderate amounts in febrile subjects, it has no unfavorable effect, and, particularly in chronic diseases of the lung, especially when associated with depression, it may have very satisfactory results. [D. L. E.]

EDINBURGH MEDICAL JOURNAL.

March, 1902. (Vol. XI, No. 3.)

1. The Harveian Oration. ROBERT FARQUHARSON.
2. Observations on Intubation of the Larynx. E. W. GOODALL.
3. Postoperative Hematemesis, with Notes of Eleven Cases. ROBERT PURVES.
4. Notes on Some Surgical Aspects of Osteo-Arthritic Joint Disease. E. PERCY PATON.
5. The Proposed Psychiatric Clinic for Edinburgh. JOHN MACPHERSON.
6. Notes on a Case of Chloroma and of Three Cases of Lymphatic Leukemia. BYROM BRAMWELL.
7. The Immediate Position of the Arm after Removal of the Breast for Cancer. THOMAS CARWARDINE.

2.—Goodall reports 101 cases of intubation of the larynx. Of the 101 cases, in 7 intubation followed tracheotomy and in 7 an attempt at intubation failed; so that there were 87 cases of primary intubation. In 43 cases intubation alone was needed for the relief of the symptoms; 9 of these died, a mortality of 20.9%. In 44 cases intubation was followed by tracheotomy; 15 of these were fatal, a mortality of 34%. In the 44 cases in which intubation was followed by tracheotomy, the latter operation was performed (1) because no or very partial relief was afforded by intubation; (2) because several intubations had proved unsuccessful in permanently relieving the patient; (3) because, sometime after the removal of the intubation-tube, dyspnea recurred, and the patient's condition quickly became too serious to allow of intubation; (4) because the intubation-tube became suddenly blocked; (5) because the operator attempted another intubation, but failed to insert the intubation-tube; (6) because the physician called to see the patient had had no experience of intubation, and, therefore, did not attempt it; (7) because it was found that the larynx was ulcerated. Cases of laryngeal obstruction, due to simple laryngitis or measles, are not more amenable to treatment by intubation than cases of laryngeal diphtheria are. Intubation is inadmissible in cases of diphtheria in which the patients, when brought for treat-

ment, are *in extremis* from suffocation. It is inexpedient, in toxic cases in which there is little or no hope of the patient's recovery. The existence of membrane below the larynx is not necessarily a bar to intubation. The tube should not be removed until the lapse of from 36 to 60 hours. If 3 insertions, each of several hours' duration, fail to cure the laryngeal obstruction, tracheotomy should be performed. Frequent expulsion of the tube by coughing a few minutes after its insertion is also an indication for tracheotomy. Discoloration of the tube does not necessarily mean ulceration; and Goodall is not disposed to attach any importance to it. In hospital practice, where there is always a physician at hand in case of need, the objection to intubation on the score of sudden blocking of the tube is not sustained. The operator should always be very careful in the introduction of the tube. Intubation should not be performed when the larynx is much swollen; a fact which can often, if not always, be ascertained with the finger. If in any case intubation is found to be difficult one should not persist too much in his efforts, especially if his experience of the operation is limited. Do not intubate the same patient more than 3 times. If these rules are adhered to, the author believes that ulceration of the larynx will not occur more often after intubation than it does after tracheotomy. There is danger of increasing the dyspnea by pushing false membrane before the tube; but the operator has only to withdraw the tube, and, if necessary, perform tracheotomy. Intubation should never be attempted without all the apparatus for tracheotomy being ready at hand. The tube was coughed up in 28.0% of the reported cases; but dyspnea by no means always returns at once, and when it does, there is ample time for the physician to reach the patient and re-insert the tube or perform tracheotomy, as the case may demand. Intubation is not more difficult to perform than tracheotomy. Although the patient cannot take food in the ordinary way without danger of its getting into the larynx, ample nutriment can be given either by a tube passed through the nose into the stomach or by rectal feeding. The child may be allowed occasional sips of water by the mouth.

[J. M. S.]

3.—The advent of **hematemesis after operation** is a serious complication. The mortality is high, 8 of the 11 cases reported in the paper under review having ended fatally; a death-rate of 72.5%. Of 29 cases already recorded, 69% died. The incidence of hematemesis is not associated with any particular form of operation. In the majority of instances it has followed operation in relation to the abdomen. But, on the other hand, Purves has been informed of 2 cases in which it followed amputation through the thigh, and the removal of a neuroma in an amputation stump; and, as a rule, there is no history of previous gastric symptoms or vomiting of blood. Chloroform sickness may or may not precede the hematemesis, and in only a few cases can be held responsible for initiating the bleeding. In those cases in which vomiting after the anesthetic is present it appears more usual for the hematemesis to come on gradually. In the absence of chloroform sickness, one finds that the first hematemesis is often quite sudden. In the majority of cases hematemesis sets in within 48 hours of the operation, though it may be delayed for some days. There may be only one or 2 occasions, within a period of 2 or 3 hours, on which blood is vomited, which is favorable; or the vomiting may continue at frequent intervals for a period of 15 to 20 hours. In the latter instance, as a rule, there will be a fatal termination within 24 hours of the onset. The vomitus is generally small in quantity, though in some cases 1 to 3 pints have been ejected. It consists, as a rule, of blackish-brown fluid, with a varying amount of bile and of digested blood. The feature of these cases that is most striking is the state of collapse and asthenia into which the patients often enter so rapidly. The condition is often a perfectly obvious toxemia from a recognizable septic infection of the operation wound. But in many cases, and chiefly in those of the greatest gravity, one is at a loss to account with certainty for the cause of the depression and rapidly advancing inanition. It is clear that all cases of postoperative hematemesis are not due to any one cause. In a number of cases it can be attributed, without doubt, to gastric ulcer or rupture of a vessel, when atheroma or cirrhosis of the liver is present, and in such cases it is no doubt precipitated by chloroform sickness.

Injury and a noninfected embolus from a ligatured omentum, may account for some cases. But, the author believes, in those cases in which such an explanation is not possible, and they are the majority, that the origin is of an infective nature. Prognosis is always grave. The more marked the septic reaction is in a case, the better is the chance of recovery. Subdued or masked infection, with subnormal temperature and rapid pulse, a rapidly increasing vital depression, the vomiting tending to become regurgitant, render prognosis graver. If bilious vomiting appears after one or 2 paroxysms of vomiting blood, the prognosis is favorable. The stomach should be washed out at once with a 2% soda solution, at a temperature of 110° to 120°F., until the fluid returns clear; to be followed by a washing out with a 1-1000 solution of silver nitrate. When collapse is marked, infusion of normal saline into a vein should be done as well, and both procedures should be repeated if there is any return of hematemesis or collapse. Strychnine hypodermically is of value. All patients should be fed through the rectum and no nourishment should be given by the mouth. [J. M. S.]

4.—In cases of **osteo-arthritic joint disease**, active surgical interference is beneficial when the condition is of the monarticular form. As a rule, the disease is accompanied by little or no effusion; but occasionally the presence of an effusion is the first, and even for a long time the only sign of the disease. If the effusion is obstinate to treatment, the case may appear to be one of hydrarthrosis and may be amenable to the treatment suitable for that condition. It is important, in a case of the latter variety, that the joint shall not be kept long at rest after the operation, as, if this is not attended to, the result is not likely to be the development of the slipping of the bones or cartilages in such a position that, when movement is commenced, the range of motion is found to be much more limited than it was before the operation. This, of course, also applies, as is well known, to these joints when rested, whether operated on or not. Effusions into bursæ are very common in the disease under consideration, and this effusion may not only be into bursæ that are in direct connection with the diseased joint but also into bursæ that are in close proximity to a diseased joint, or possibly, in some cases, even at some distance away. In such cases the syrup of the iodide of iron is useful. The diseased bursæ should be painted with iodine liniment every night until the skin gets sore. Excision of the cyst may be practised, but in cases in which the enlarged bursa is situated so that it can scarcely be excised with safety, it may sometimes be incised and drained with advantage. Bursæ may develop as the result of the pressure which a deformity caused by osteo-arthritis may entail on some prominent point of bone, as for example, the common bunion. Such a bursa may suppurate and produce infection of the joint, and, hence, cause a good deal of trouble, pain and damage to the foot. In such a case as this, the treatment of the bursa should include the treatment of its cause, that is to say, the excision of the cyst should be accompanied by the well-known procedure for the cure of the deformity, namely, excision of the bone. Loose bodies are not very infrequent in the subjects of osteo-arthritis, and sometimes the presence of one of these is the first thing that calls the patient's attention to the condition of his joint. Removal of such a body involves the question of injury to the affected joint. In many cases nothing further results than some effusion, which, sooner or later, clears up, leaving the joint with a good deal of stiffness, but otherwise much as before. This is, however, by no means always the case, even if the injury to the joint has not been a severe one, particularly in the hip and the shoulder. In these large joints rest must be provided until the effusion has nearly disappeared; the joint should then be moved passively, if this can be done without violence, the range being gradually increased. Friction over the joint, persistently carried out, preceded in each case by bathing with hot water and followed by carefully swathing the joint in warm flannels to protect it from the cold, will, in the majority of cases, give the best results. This treatment should be combined with careful attention to the general health, so as to improve the general nutrition, which has, in many cases, a very distinct influence on the improvement of the joint. [J. M. S.]

6.—Bramwell reports the case of a man, aged 25 years, who presented an eruption on the thorax, abdomen, back,

arms, face and scalp composed of flat-topped nodules, varying in size. In many places the nodules were confluent, and produced a raised, uniform infiltration of the skin; they were painless, not adherent to the deeper parts and, for the most part, of a slaty-gray or purple-gray color; some of them were yellow in their centers. The gums were enormously swollen, firm and of a dark-purple color; the right tonsil was much swollen and of a dark-purple color. The conjunctiva was infiltrated with a translucent, fleshy-looking growth, in which vessels could be seen ramifying. The epiglottis and the larynx were greatly swollen, the swelling being due to lymphoid infiltration. The author believes that the case was one of chloroma. The condition of the blood corresponded to that of acute lymphatic leukemia, and it is very important to note that the leukocytes (95% or more of which were lymphocytes) were not increased in number (8000 per cc.) The mere fact that the leukocytes were not increased in number does not exclude leukemia. He reports a typical example of very acute lymphatic leukemia, with peculiar lymphoid infiltrations of the gums, the tonsils, the epiglottis and, to a very limited extent, of the skin. The 2 cases when taken together have an important bearing upon the pathology of chloroma. That disease is very rare, but it is probably much more common than is usually supposed. The first case reported shows that lymphatic leukemia may be present when there is no excess of leukocytes. The question whether chloroma is a definite and distinct disease or whether it is merely a variety of acute lymphatic leukemia, is a very difficult one to answer. The cases which have been described seem to show that no hard and fast line can be drawn between them. The condition of blood found in the case reported, 95% or more of the white corpuscles being lymphocytes, may result from more than one pathological condition. But, practically speaking, lymphatic leukemia and chloroma are the only known diseases in which such a condition of blood is present. In a case of very acute lymphatic leukemia, recently studied by the author, there was very little glandular change, but the lesions in the spleen and the bone marrow were very marked. Both kidneys were very much enlarged and the cortical substance was infiltrated with numerous large hemorrhages, the intervening substance being exactly of the color of very anemic brain tissue. The urine, which was carefully examined on 3 separate occasions during the last 3 days of the patient's life, was pale and absolutely free from albumin. In a case of chronic lymphatic leukemia, there were enormous glandular swellings throughout the body, as well as enlargement of the spleen and very marked changes in the bone marrow.

[J. M. S.]

7.—Carwardine believes that the practice of fixing the arm to the chest, after operations for the removal of the breast, is a bad custom and answerable for much of the impairment of utility and of edema of the arm that frequently ensue. He is in favor of the **abducted position after the operation**; the results of which have been uniformly gratifying. The best position for the arm, in order to give wide range of movement, will be that which gives the longest base to the axillary triangle, which approximates the base to the apex and which prevents the tissues being misapplied during the healing processes. All 3 points in the argument are gained by the abducted position. In the abducted position, edema of the arm is then much less, is of shorter duration and is often absent. In a patient in whom the arm was edematous for 2 years after the first operation, the arm had been applied to the chest. In this patient, the axillary artery was in its normal position, but the axillary vein was bound to the chest-wall by a very firm band of scar tissue, kinking it and dragging upon it in a very marked manner, thus causing the edema.

[J. M. S.]

NORDISKT MEDICINSKT ARKIV.

1901. (Afd. I, No. 4.)

24. Experimental Appendicitis. JOHAN NICOLAYSEN.
25. The Mechanism of Intestinal Obstruction by an Adherent Meckel's Diverticulum. G. EKEHORN.
26. Tendon Transplantation and Plastic Operations. BUELOW-HANSEN.
27. The Clinical Diagnosis of Cystic Degeneration of the Kidneys. J. BORELIUS.

28. A New Procedure for Closing Urethral Defects.

G. EKEHORN.

This number contains a biography of the late Dr. Axel Key, of Stockholm, for years editor of the *Nordiskt Medicinskt Arkiv*, with an excellent photograph.

24.—Experimentally, traumatism is the main predisposing causes to **appendicitis**. A review of the literature shows that the pathology of appendicitis depends upon the relation between infectious enteritis and localized inflammation of the appendix, causing ulceration, cicatrices, etc. His experiments upon rabbits are fully described. The presence of bacteria in the intestinal tract of rabbits causes ulceration and deeper changes, with the retention of a purulent secretion, just as in human beings. The longer the colon bacilli live, the worse becomes the appendicitis. That infectious enteritis may cause appendicitis, even after all symptoms of intestinal catarrh have disappeared, seems probable. In acute attacks it is possible that virulent streptococci pass through the intestinal walls or that an ulcer perforates, causing peritonitis. [M. O.]

25.—A **persistent Meckel's diverticulum** is found in one man out of every 80 human beings. The three forms of Meckel's diverticulum cause different kinds of intestinal obstruction. Most rarely a persistent omphalomesenteric duct exists which may cause ileus. More frequent is an **adherent Meckel's diverticulum**. The most common form, a free Meckel's diverticulum, generally causes invagination. Rarely the free diverticulum may form a knot, including the twisted intestine. Ekehorn has collected 111 cases of adherent Meckel's diverticulum, 44 being adherent to the anterior abdominal wall, 67 to the mesentery and intestines posterior. These adhesions are congenital. Of his 44 cases adherent anteriorly, 24 were attached to the umbilicus and 12 in the umbilical region. Of his 67 cases adherent posteriorly, 31 were attached to the mesentery, 5 to the mesentery lower down, and 11 to the intestinal wall. In the former variety of adherent diverticulum, occlusion most often, (in 27 cases), occurred from torsion of the intestine near the origin of the diverticulum. In 5 cases it was due to the formation of a loop; in 2 cases to knot formation, and in 2 cases to traction. In 8 cases the cause of the obstruction was unknown. Of the 67 cases attached posteriorly, 34 were due to torsion and 10 to incarceration; in the other cases the cause of the intestinal occlusion remained unknown. Tenderness is found on the right side of the abdomen, below the umbilicus, with resistance and meteorism. Apparent improvement may occur, but this is only temporary. The most conservative operation possible gives the best result. The diverticulum may even be left in the abdomen. The 11 case-histories follow in detail. [M. O.]

26.—**Tendon transplantation** is of use in the correction of the muscular paralysis and paresis which generally follows anterior poliomyelitis. It is indicated after all other methods of treatment have been tried unsuccessfully. Before operating, the functions of the part must be thoroughly studied. Long incisions should be made, so that muscles and tendons are both exposed. Muscles for transplantation should perform a function the same as, or related to, the paralyzed muscle. The results in 75 collected cases of tendon transplanation were successful in 75%. The operative technique is given in full. The case-histories of 14 new cases follow, all of them having improved after operation. The effect is always something gained, generally a good deal. [M. O.]

27.—**Cystic degeneration of the kidney** is a common post mortem finding. Not one of the 3 theories, of retention, new growth, or malformation, explains the occurrence of renal cysts. The condition has been found in several members of one family; and other deformities often are noted with it. The extirpation of cystic kidneys has given a high mortality. The case-histories of 4 patients treated by operation follow. Two of them recovered. In one of

them was the diagnosis made before operation. From these cases it seems probable that the development of cystic degeneration of the kidney begins early in life. As the symptoms vary, the diagnosis is exceedingly difficult. Symptoms may resemble interstitial nephritis, renal colic or uremia. Urine analysis, a percutaneous lumbar exploratory puncture, or exploratory incision may aid in forming the diagnosis. [M. O.]

28.—Ekehorn describes an operation which he performed upon a boy of nine, who in an accident had part of his perineum torn away, including the anus and a portion of the deep urethra. After the wound healed, he moved up the anterior urethra by cutting flaps, thus remedying the existing defect. The result was excellent. His technique is fully described. [M. O.]

1902. (Afd. 2, No. 1.)

1. The Occurrence of Tuberculosis in the Country. ISAGER KRISTEN.
2. Movable Kidney. SIGVARD MADSEN.
3. The Significance of Pathological Irritability of the Sympathetic Nervous System. MAX BUCH.
4. The Diagnosis and Treatment of Neuralgia of the Sympathetic Nervous System. MAX BUCH.
5. The Therapeutic Use of the Cacodylic Compounds in Pulmonary Tuberculosis. AAGE KOCK.

1. To be abstracted when concluded.

2.—In a long discussion on movable kidney from the point of view of the physician, Madsen says that the condition is relatively frequent in women between 20 and 50 years of age. The right kidney is much more often affected than the left. It is not at all rare to note changes in the stomach or intestines upon the same side, yet without any direct relation between them and the movable kidney. Besides, it must not be forgotten that the kidney may be movable without any pathological condition being present. Dyspepsia often results directly from movable kidney, sometimes with neurasthenia. There may also be anemia, nervousness, general weakness, and local or radiating pains from pressure or twisting of the dislocated kidney. The main cause of abnormal mobility of the kidney is a congenital or early acquired relaxation of the muscular and ligamentous supports in the abdominal cavity, or there may be an abnormal or peculiar anatomical relation between the kidney and the neighboring organs. Frequent childbirth or accidents may cause it, though rarely. In the treatment, it is necessary to support the strength and nutrition of the patient; to treat the dyspeptic symptoms especially; to treat the local conditions symptomatically; and to apply a binder and order massage in the advanced cases. [M.O.]

3.—Pathological irritability of the sympathetic nervous system causes change in the organs innervated by it. Thus dyspeptic, vasomotor, secretory and trophic disturbances may occur all over the body as a result. These conditions have been called gastralgia, enteralgia, stenocardia, migraine, gastric myasthenia, intestinal atony, nervous diarrhea, vomiting, dyspepsia, etc. This the Germans call "sympathicismus." The symptoms are always the same, the topography alone changing. In every case hyperesthesia of the portions of the body supplied by the part of the sympathetic nervous system affected was found. [M. O.]

4.—It is not always easy to differentiate neuralgia of the sympathetic nervous system. It may resemble hysteria, neurasthenia, peritonitis, appendicitis, etc. In fact, it has been taken for almost every diseased condition known. It is often due to emotion, and may be accompanied by insomnia, for which Buch advises bromides, with chloral or sulphonal at night. In more severe cases a change of air, a bath or mineral water cure may do good. Even moist applications may be of use. If it occurs with venereal disease, the cause must be treated. Chronic lead, tobacco, or coffee poisoning should not be overlooked. In chlorotic persons iron and arsenic must be added. Massage and bandages may prove invaluable in some cases. Antipyrine, phenacetine, salicylates, etc., will often be of service, especially when combined with massage and baths. [M. O.]

5.—To be abstracted when concluded.

Special Articles.

A NEW ANIMAL DISEASE IN THE PHILIPPINES.

Surra, a disease known for years, but scarcely mentioned in American text-books on medicine, is at present occupying the attention of the pathologist and veterinarian. The malady has assumed especial importance in this country largely because it has invaded the Philippine Islands, destroying large numbers of horses and mules there and threatening to invade also the United States. In view of the serious aspect of this disease and because of the lack of information concerning it, Drs. Salmon and Stiles and Albert Hassal, of the Bureau of Animal Industry, at Washington, have compiled an "Emergency Report on Surra," in which they set forth in an exhaustive manner all the known data gathered from a fairly voluminous literature on the subject. Surra, which is the vernacular name of a febrile specific affection of solpeds and camels, has been known in India for several generations, but was first brought to the attention of the rest of the world in 1880 by Dr. Griffith Evans in his report to the government of India. Since then numerous papers on the subject were published by physicians and veterinarians, notably by Alfred Lingard, imperial bacteriologist in India, who published a number of valuable reports, containing numerous clinical histories, tables, analyses, etc. The existence of the disease has also been reported from Algeria, France, Korea, Egypt and Syria. Recently, an outbreak occurred in the Philippine Islands, where it was probably imported by our troops from China, the latter having gotten it from India through the English troops. In the Philippines, the disease has been diligently studied by Drs. Allen M. Smith, of the United States Army, and J. J. Kinyoun, of the Marine-Hospital Service.

Surra is caused by a protozoon *trypanosoma evansi*, genus *trypanosoma*, family *trypanosomidae*, order *monadida*, subclass *flagellata*, class *mastigophora*. The parasite, as described by Smith and Kinyoun, resembles a whip-like worm, having the appearance of *trichocephalus dispar*. It is from 10 to 14 microns long and from 1 to 1.2 microns in diameter through its body; the neck is nearly one-half its length, tapering gradually to a point representing the mouth (?). It has a well-defined limiting membrane, and in most cases a symmetrical contour of the body. The larger part of the body contains granular material which does not extend to the neck, and irregularly distributed vacuoles. The parasite is actively motile, having both a vermicular and spiral movement, the latter being accomplished by the long whip-like process. The parasite has been found in the blood of horses, mules, camels and elephants any may be transmitted to cattle, buffaloes, sheep, goats, rabbits, guinea-pigs, rats, dogs, cats and monkeys. Birds, reptiles, amphibia or fish are not known to harbor this parasite, although they may be infected with *trypanosoma* of other species. The presence of *trypanosoma* in man has been reported by Nepveu and Dutton, but satisfactory details of

the cases are lacking. The parasite invades the blood, causing a rapid and progressive destruction of the red bloodcorpuscles and hyperleukocytosis. The red bloodcells lose their property of forming normal rouleaux, lose their individuality and run together into irregular masses. The more prominent clinical symptoms are an intermittent, remittent and sometimes a relapsing type of fever which continues from a few days to months, occasional appearance of urticaria, general or localized, petechiæ on the mucous membranes, edema, lachrymation, rapid and progressive emaciation, extreme debility and progressive anemia. Death invariably follows, and it may be caused by exhaustion or some intercurrent disease. *Post mortem*, no specific lesions are found. There are as a rule small subpleural and subendocardial extravasations, together with enlargement of the liver and spleen.

The etiology and pathology of surra being known, the classification can be readily accomplished. The disease is known under a variety of vernacular names, each denoting a symptom or certain stage of the malady, but none could be accepted as a proper technical term. To prevent the confusion which may arise from some 50 names applied to the same disease, the authors of the report suggest the term *trypanosomiasis*, signifying infection with trypanosoma of whatever origin. The term is intended to include, but not entirely supplant, the names "tsetse-fly disease" and "surra," these terms denoting varieties.

It is evident from a closer study of trypanosomiasis that the disease bears a close analogy to malaria. Not only does the parasite of the latter belong to a similar group of hematozoa, but the two have in common the absence of specific lesions, the pathological changes in the liver and spleen, the character of the fever and the profound toxemia. On the other hand, the two diseases differ in the greater severity of surra, the absence of chills and perspiration and other minor clinical manifestations. The analogy holds good also in regard to climatic influences and mode of infection. Trypanosomiasis is especially prevalent during the rainy seasons, the epidemics bearing a direct relation to the rainfall. This relation probably depends on the mode of propagation of the disease, just as it does in malaria. The infection, as shown by a critical analysis of the evidence on hand, takes place only through the blood, the parasite gaining access through an abrasion in the mucous membrane or skin. It then follows that the carriers of the disease may be biting insects, such as horseflies, mosquitoes, etc. That such is the case is proved by abundant observations and experiments. However, there is no evidence to show that the insect serves as an intermediary host, as is the case in malaria, yellow fever and Texas fever. The mode of infection is purely that of inoculation with the blood adhering to the proboscis of the suctorial insect, it having been shown that the minutest trace of blood containing trypanosoma suffices to infect a healthy animal. Treatment of surra has so far proved ineffectual. Various remedies, such as mercuric chloride, iodine and its com-

pounds, quinine, carbolic acid, etc., have been tried without making any permanent impression on the disease. Prevention is the only means of restricting the epidemics. Prevention includes the guarding against open or abraded surfaces, extermination of biting insects, especially flies belonging to the tabanidæ, protection of the animals against insect bites and isolation. Orders have been already issued by the Secretary of Agriculture prohibiting the importation of animals from the Philippines into the United States.

AMERICAN JOURNAL OF ANATOMY.

February 28, 1902. (Vol. 1, No. 2.)

1. The Spermatogenesis of *Desmiognathus Fusca*.
B. F. KINGSBURY.
2. On the Origin of the Pulmonary Arteries in Mammals.
JOHN LEWIS BREMER.
3. The Development of the Arm in Man.
WARREN HARMON LEWIS.
4. The Development of the Eye Muscles in *Acanthias*.
ARTHUR B. LAMB.
5. A Statistical Study of the Abdominal and Border Nerves in Man. CHARLES RUSSELL BARDEEN.

2.—The earliest buds of the pulmonary arteries in the rabbit appear in embryos of about 4 mm.; one bud from each of the pulmonary arches on the mesial aspect of each. These buds grow downward on each side of the trachea, and slightly in front of it, to the lungs, where the usual branches are given off. As the arteries increase in length they seem to approach each other at their origins from the aortic arches so that the 2 vessels become fused, increasing the length of the truncus pulmonalis. As a result of further changes, among which are the obliteration of the right pulmonary arch, the left pulmonary arch appears to give rise, at about its midpoint, to 2 arteries, the right one, the longer of the two, and the left one, the shorter. The portion of the left fifth arch posterior to the pulmonary arteries becomes the ductus arteriosus. [J. M. S.]

3.—Lewis has made a more complete study of the development of the arm than was recorded in the paper on the development of arm and leg published in the first number of this journal. He finds that the differentiation of the skeletal core of the arm begins during the fourth week and that during the fifth week the nerves from the cervico-brachial plexus, which has previously been formed, push into the premuscle sheath which surrounds the skeletal core. By the end of the fifth week 3 of the skeletal elements contain cartilage. By the end of the sixth week the majority of the muscles are easily recognized. By the end of the seventh week all the skeletal elements are of cartilage except the distal row of phalanges; all the muscles may be recognized and are composed of muscle fibers: and the tendons and ligaments, except in the distal parts of the digits, are well formed. During this process the whole arm migrates caudally, accompanied by the migration of muscles from more anterior regions to the arm, shoulder-girdle and thorax. He describes the effect on the brachial plexus of the caudal migration of the arm and the migration of the muscles just mentioned. [J. M. S.]

5.—Bardeen has studied the distribution of the main nerves of the abdomen and of the border region between the abdomen and the thigh in man. His results are depicted in a number of interesting tables and a number of diagrammatic representations. The variations found in the distribution of these nerves may be due to local conditions, which affect merely the nerves derived from a given spinal segment and its immediate neighbors, or it may be due to conditions that affect the whole distal region of the spinal axis and the position of the limb relative to the axis. [J. M. S.]

Original Articles.

THE MENTAL DISORDERS OF CHILDREN.*

By F. X. DERCUM, M. D.,

of Philadelphia.

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The mental disorders of children, notwithstanding their great interest and importance, have been too much neglected both by the general practitioner and the specialist. I am sure that a systematic consideration of the subject cannot but prove of value. To arrange the forms of disease met with in accordance with established clinical and pathological facts will tend to clear up much that seems obscure. It will enable us properly to group these affections and to bring into prominent relief the relations which they bear to each other, as well as their relation to the mental diseases of the adult. With this object in view, it will be necessary for us, first, to consider the affections met with in infancy, and then the affections which begin at or about the time of puberty. Childhood embraces, as we know, the period extending from birth to puberty, but if we are to obtain correct conceptions regarding the mental disorders of childhood, our studies must not be limited by the onset of puberty, but must extend for some time beyond this epoch.

Insanity, such as is met with in the adult, is rare in infancy. Idiocy and imbecility, on the other hand, are quite common. These affections, we should remember, are not, properly speaking, insanities. They are due for the most part to arrest of development—gross pathological lesions and morphological defects, such as are not met with in the insanities. They are quantitative affections rather than qualitative. Idiocy and imbecility are terms which are commonly used by medical writers interchangeably; such use is, however, obviously incorrect. The word idiot should be limited to states of mental arrest which are evident either at birth or shortly after birth. Imbecility, on the other hand, should be limited to the symptoms of mental arrest and feebleness which make their appearance somewhat later. The legal definitions of idiocy and imbecility, though they are not scientific and accurate, possess at least the virtue of accentuating this difference. Thus the law defines an idiot as a child born without a mind, and an imbecile as an adult with the mind of a child. Both definitions are excessive and yet are of undoubted value as fastening clearly in the mind the distinction between the two states. We should remember, however, that in practice it is not always possible to differentiate sharply between idiocy and imbecility. Imbeciles often present a history of slowness of mental development and of slight quantitative defects in early infancy which would cause them to be properly classified among idiots, and yet the degree of the mental development and the lateness at which decided symptoms of mental impairment are noticed would cause us to classify them among imbeciles. Not-

withstanding, in the greater number of cases, the facts enable us to classify them readily in one or the other group. In practice, however, we frequently use the term feeble-minded as one which conveniently designates both idiots and imbeciles. After all, the distinction is more of theoretical than of practical value.

In the course of lectures which I deliver annually at the Jefferson Medical College, I classify idiots and imbeciles as follows:

First, those with gross morphological changes; i. e., cases which present in a marked degree the stigmata of arrest and degeneration, such as microcephaly, anomalies of the palate and teeth, of the tongue, of the ears and of the extremities. The brain reveals at autopsy gross morphological defects and peculiarities. In this group we should include also those forms of idiocy in which anatomical peculiarities of alien races, such as the mongolian and the negro, are simulated. The mongolian form of idiocy, it may be added, is not at all uncommon. The negroid form, on the other hand, is quite rare.

Second. In the second group I place those idiots and imbeciles who present gross pathological changes such as produce hemiplegia, diplegia or hydrocephalus; in this group the mental loss is directly to be attributed to the destruction by gross pathological processes of large cortical areas or portions of the brain substance. It includes also cases in which idiocy is associated with epilepsy, with inherited syphilis or with trauma.

Third. In the third group I place the cretins. The cretins, I need hardly say, form a well-defined group by themselves; the mental loss is here directly to be attributed to the destruction by gross pathological processes of large cortical areas or portions of the brain substance.

Fourth. In the fourth group I place the amaurotic family idiots; they belong to a group isolated and named by Sachs. In this form several children of one family are usually affected. As a rule nothing special is noted until the child is about six months of age, when undoubted arrest and deterioration become manifest. Weakness and spasticity of the limbs also make their appearance. The affection is essentially progressive, is attended by increasing loss of vision and finally terminates in death. The cause of the disease is as yet unknown. Destructive changes have, however, been demonstrated in the nerve cells of the cortex, of the basal ganglia and of the spinal cord, and are of such a nature as to suggest the action of a toxin. It appears to be a well-defined disease.

The above classification of idiots is not only scientific, but has the merit of simplicity. The first two groups, that is, the idiots with gross morphological defects and the idiots with gross pathological defects, are closely related. Cases are not infrequently met with in which morphological and pathological defects exist side by side. Nevertheless, the arrangement applies to the great mass of the material coming under our observation. Cretinism and amaurotic family idiocy are distinctive forms which bear no relation to the first two or to each other.

*Address delivered before the Ohio State Pediatric Society, May 27, 1902.

The irregular and unequal mental development of the feeble-minded child forms a most interesting study. We might occupy much time in considering the various psychic deficiencies of idiots and in pointing out their relations to the physiological problems presented by their anomalies of touch, sight and the other special senses; or we could turn our attention to the abnormal precocity every now and then observed and which in its extreme forms produces such remarkable phenomena as the "idiot savants," the musicians, the linguists, the calculators and the idiots with abnormal memory. It offers a most inviting field, instructive alike from the physiological as well as the psychological standpoint. However, it is my intention this evening not so much to study with you idiocy and imbecility, as the insanities of children.

At the outset of our study we realize that the relation which the child mind bears to insanity is special and peculiar, and that it differs markedly from the relations which the adult mind bears to insanity. In order that this relation be brought out clearly and sharply, it will first be necessary to allude briefly to the mental disorders as they are presented by the adult. In a paper read before the meeting of the American Neurological Association in 1901, I pointed out that mental affections readily arrange themselves into the following groups¹:

I. Delirium, confusion, stupor. Delirium, confusion and stupor are closely related clinical forms and they constitute a group of mental affections by themselves. They present in common the symptoms of hallucinations, illusions, fragmentary and unsystematized delusions and incoherence. They are separated clearly and distinctly from the other mental disorders and they have in all probability as causes the various infectious fevers and other somatic diseases. We have at once suggested to our minds the action of bacteria, of bacterial toxins and of other poisons upon the cortex.

II. Melancholia, mania, circular insanity, (melancholia-mania). Here we have another group of affections which are most closely related; indeed, the facts at our command justify the opinion that they really constitute *one* affection. The symptoms presented differ radically from those presented by delirium, confusion and stupor. Melancholia-mania is distinguishable by the great factor of heredity, by the dominance of the emotional state—great emotional depression or great emotional exaltation—by a wavelike course, by a more or less marked lucidity, as compared with delirium and confusion, and by a tendency to recurrence.

III. Paranoia. In paranoia we have a disease in which a phase of depression extending over many years is at length followed by a phase of expansion, likewise of many years' duration, the two phases dominating a great part of the life of the individual and terminating in an increasing dementia. The various stages of the disease are characterized by the development of delusions, depressive or expansive, which are especially distinguished by the fact that they are well systematized—that they are well

arranged, coherent and present a logical sequence.

IV. Neurasthenic Insanities. The neurasthenic insanities constitute a well-defined group by themselves, for the establishment of which two factors, neurasthenia and neuropathy, are necessary. The neuropathic constitution is an essential prerequisite to their development. Persons otherwise normal, who acquire neurasthenia, do not acquire neurasthenic insanity.

V. Dementia. This constitutes the last group and in its simplest expression presents merely the phenomena of mental loss.

Let us now attempt to apply the principles of this classification to the insanities presented by the period of infancy—i. e., the period which extends from birth to puberty. Beginning with the first group, delirium, confusion and stupor, we all know that children suffer quite frequently from delirium and from mental confusion and not infrequently from stupor. No picture is more familiar than the delirium met with as a result of the febrile diseases of children—the hallucinations are just as vivid, the illusions are just as evident, and the delusions of fright and terror are just as manifest as are those presented by delirium in the adult. Every one of us can recall cases of delirium in children produced by injury, by shock, by fear or by protracted excitement. Prolonged mental confusion and stupor are also now and then observed, though they are not as frequently met with as simply delirium. However, there is not a practitioner of wide experience who has not seen in children prolonged cases of confusion and stupor following exhausting affections, such as typhoid fever. Indeed, I think we will agree that the symptom group of delirium, confusion and stupor occurs quite frequently in infancy and does not differ in any essential particular from the corresponding affections met with in the adult.

When we consider the second group, melancholia and mania, and the third group, paranoia, we find that they occur in children, if at all, with the greatest rarity. Melancholia and mania occur especially between the ages of eighteen and thirty, a period in which the emotions have attained a high degree of development—when profound emotional depression and great emotional exaltation have become possible. Paranoia, again, presupposes an intellectual development sufficiently far advanced to enable the patient to evolve complex, well-ordered, systematized delusions.

The fact that melancholia and mania and paranoia are not met with in infancy no doubt stands in direct relation to the undeveloped condition of the child mind. However, not infrequently children present symptoms which are the forerunners of an insanity which develops later in adult life. The symptoms are, however, ill defined and vague. Every now and then a child is met with who exhibits excessive fear, excessive shyness, abnormal self-distrust, morbid conscientiousness, or who even adopts vague notions of self-blame or makes confessions of imaginary sins. On the other hand, such a child may

1. Journal of Nervous and Mental Disease, September, 1901.

manifest abnormal exaltation and excitement, may make precocious religious profession or may manifest abnormal religious exaltation. Certainly this picture strongly suggests melancholia on the one hand, or mania on the other, and such a child must be regarded as possessing the melancholia-mania temperament. Insanity may be foreshadowed in childhood, but is rarely matured. Typical mental disease, it may be here stated, only becomes noticeable as we approach puberty, and then becomes progressively more and more frequent up to forty years of age. Besides, the influence of heredity does not, and probably cannot, make itself felt in a well-defined way until a certain amount of mental development has been attained by the child, as at puberty and adult life. Suicide in children, it should be added, very rarely occurs as a result of true melancholia. As a rule it is due to a revolt against discipline, a fear of punishment, or a sense of shame or disgrace; it is not the result of logical reflection such as leads to suicide in melancholia.

In the fourth group of mental affections we have the neurasthenic insanities. In simple neurasthenia, uncomplicated by neuropathic elements, the patient presents among the mental phenomena the following symptoms: First, weakness, as shown by ready mental exhaustion, diminished force and will; second, an abnormal condition of hesitation, doubt and indecision; third, a condition of abnormal timidity and fear; and, fourth, a weakened self-control, the various mental functions being no longer well dominated or inhibited. If neurasthenia occurs in a patient already the victim of a neuropathy, these various symptoms become well differentiated and reach a high degree of development. Accidents of time and place or other circumstances of environment determine various pathological associations which become more or less fixed and sharply characterized and give rise to well-defined forms of neurasthenic insanity. A single instance will make my meaning clear. In simple nonneuropathic neurasthenia the patient is at times subject to attacks of generalized fear; suddenly, without obvious cause the patient is seized with palpitation of the heart, with great pallor of the surface, coldness of the extremities, sinking sensations in the epigastrium and a more or less overpowering emotion of fright. After the attack subsides the patient is again entirely normal; there are no residual mental phenomena. His mental condition, subsequent to the attack, does not differ from his mental condition previous to the attack. In neurasthenia occurring in neuropathic subjects, however, the emotion of fear may become linked with certain relations of the patient to the external world; and thus may be established the fear of open or of closed spaces or any of the other special neurasthenic fears or phobias. The pathological association thus formed in the patient's mind becomes more or less fixed and persistent.

The limited time at my disposal will not permit me to apply this explanation to all of the symptoms presented by the neurasthenic insanities. It must suffice to say that the neurasthenic insanities

present themselves in the following forms: First, the insanity of the special fears; secondly, the insanity of indecision (*folie du doute*); thirdly, the insanity of deficient will (*aboulie* insanity); and, lastly, the insanity of deficient inhibition (the insanity of "irresistible impulse").

When we are asked the question whether neurasthenic insanities occur in children, we must answer in the affirmative. However, two qualifications are necessary: First, they are far more rare than in the adult, and, secondly, they do not, as a rule, present themselves in sharply defined or well differentiated forms. These peculiarities are doubtless due to the fact that complex associations are less readily formed in the immature mind of the child. As a rule, many symptoms referable to various adult forms are present, such as abnormal fears, painful indecision, tyrannical obsessions, irresistible impulses, but they are incomplete, ill defined or changeable. For this reason neurasthenic insanity in a child cannot, as a rule, be classified under any special adult form.

It is not surprising that a marked neuropathic heredity is usually present; very frequently, too, such a child presents on its own person numerous neuropathic stigmata; thus, it may be undersized, it may present evidences of arrested development, unusual asymmetries, anomalies of the palate, of the teeth, of the ears or other morphological peculiarities. Occasionally also it is abnormally precocious. While all of these features are not always in evidence, or not always pronounced, the picture presented is usually strongly suggestive of degeneracy. Not infrequently also the vague symptoms of a neurasthenic insanity observed in childhood prove to be merely prodromal to a far more serious and far more extensive degeneration coming on in after years. I refer to the dementia of puberty, the dementia præcox of Kraepelin.

As we approach the years of puberty, mental affections become relatively more and more frequent. Neurasthenic and neuropathic manifestations, such as those which we have just considered, become more evident. Gradually these manifestations assume a more or less definite form and a decided and well-defined mental disease, a precocious dementia, may make its appearance. Neurasthenic symptoms are not, however, necessary forerunners of this disease, though neuropathic elements are doubtless always present. Not infrequently, as in neurasthenic insanities, stigmata of degeneration, morphological anomalies, are observed.

Dementia præcox is an affection of the very greatest interest and practical importance. Its onset may antedate puberty, may occur at or about the time of puberty or may not make its appearance until some time after puberty has elapsed. It presents itself in various forms and its symptoms are quite manifold. It is essentially a dementia which begins insidiously and is in most cases progressive in its character. In its course we can always distinguish two phases, the first characterized by depression, the second by expansion or exaltation. The transition from the phase of depression to the

phase of expansion is, as a rule, a gradual one and not infrequently a patient is met with in whom the phases of depression and exaltation are for the time being commingled, so that at times the patient is depressed and at other times exalted; at times quiet, at other times boisterous and excited. Strangely enough, the affection is more frequently met with among males than females. The history which it presents in an individual case is somewhat as follows: Not infrequently we find that the patient has not been entirely normal in his previous development, either mental or physical, that he has been slow to learn and has made little progress at school. At other times it is observed that a child, previously industrious and making satisfactory progress, becomes listless and inattentive. His lessons are no longer well prepared. It becomes distinctly more and more difficult for the child to acquire new facts, to take in new ideas and to apply or elaborate them. Sometimes this stage is preceded by a period of unusual precocity. The memory for the passing events of the day and for past occurrences is at this stage well preserved, and the patient is, as a rule, in normal touch with his environment. Little by little, however, undue indifference, lack of interest becomes more and more pronounced, and, gradually, changes in the manner, in the conduct and in the habits of the child are noticed. The child, if it be closely observed at this period, is often found to present symptoms suggestive of neurasthenia. It is easily tired, is easily depressed and not infrequently cries from little or absolutely no cause whatever. Very soon it becomes timid and fearful. Hallucinations make their appearance and at this stage the child is apt to take refuge in aimless and apparently inexplicable flights from home. Indeed, this tendency to run away without rhyme or reason, is one of the most common histories presented by these patients. When captured and questioned as to the object of the flight, the child usually is unable to offer any explanation. Occasionally, however, and especially in the older children, an account is given of terrifying hallucinations and delusions of fright and persecution.

(To be Continued.)

RECENT PROGRESS IN PROSTATIC SURGERY.

By G. FRANK LYDSTON, M. D.,

of Chicago, Illinois.

Professor of Genito-Urinary Surgery and Syphilology, State University of Illinois; Professor of Surgery, Chicago Clinical School; Surgeon to St. Mary's Hospital.

While the surgery of the prostate has not yet assumed its proper position as a field for classical surgical technique, the past ten years have witnessed marked advances in this direction. Should the same rate of progress continue for another decade, hypertrophy of the prostate and kindred conditions will no longer be the *bête noir* of the surgeon and the despair of the afflicted patient. A distinct advance in our knowledge of prostatic pathology and therapeutics has been the steadily growing belief that in a large proportion of instances the so-called senile disease of the prostate is due to chronic con-

gestive and inflammatory conditions, developing at a period remotely antecedent to the appearance of the first definite symptoms of mechanical urinary obstruction. Many years ago the author expressed his faith in this view of prostatic pathology, and he believes that he is justified in saying that he was a pioneer in this field. Chronic hyperplasia following congestion from various causes was advanced by him as the cause of many cases of prostatic hypertrophy. With increasing experience this view has been confirmed and modified only to the extent of believing that distinct chronic inflammatory changes are sometimes the basis of so-called senile prostatic disease. Careful macroscopical and microscopical examination of a large number both of healthy and diseased prostates has served to crystallize the author's original impressions upon this point.

The importance of a knowledge of the congestive and inflammatory factors in the etiology of prostatic disease is at once obvious. While prostatic hypertrophy and its congeners are insusceptible of relief save by radical surgical procedures, the same cannot be said of the fundamental conditions from which, according to the author's view, chronic prostatic disease develops later in life. In many instances the cause of the primary hyperplasia and inflammation of the prostate is some irritative affection of the prostatic urethra, or even of the pendulous urethra acting reflexly. By attention to these conditions, prostatic hypertrophy may be prevented in a certain proportion of cases. The indications in this direction are:

1. To educate the profession and the public to an understanding of the fact that so-called senile hypertrophy of the prostate is not a disease necessarily incidental to senility, not a part, so to speak, of perverted senile physiology, but is due to causes and conditions operative at about middle life or even long before that period—causes which may often be either removed or so far inhibited that serious chronic disease, which will otherwise inevitably occur later on, is prevented. A point of great importance is the necessity of an early diagnosis and careful methodical treatment as curative of present conditions and prophylactic of much future misery.

2. The second indication is to relieve, by suitable systematic treatment by sounds, irrigations and antiseptic, astringent or alterative applications, irritative affections of the vesical neck in the male. It is obviously necessary to remove all sources of irritation and infection, no matter what portion of the urethra may be involved.

3. The third indication is to decongest the prostate and its environments and stimulate absorption of the hyperplastic or inflammatory exudate. This may be best done by massage.

The author, some years ago, took the position that residual urine *per se*, which has been the bugbear of the profession from time immemorial, was not so pernicious as ordinarily believed, so long as it was aseptic. The passing years have only confirmed his views upon this point. In a general way, it is safe to assert that the prostatic's period of

greatest danger begins when he first consults the surgeon and is advised to catheterize himself systematically or have the operation performed by the physician for the purpose of withdrawing residual urine. More harm has resulted from the exaggerated estimate of the importance of urinary residuum, on the part of both the profession and laity, than from almost any other factor that could be mentioned in prostatic disease. An endeavor to relieve prostatic congestion and irritation of the vesical neck is rational. The mere frequent withdrawal of the residuum, with its attendant dangers of infection and the establishment of the catheter habit, is decidedly irrational so long as the residual urine is in moderate amount and aseptic. Just as soon, however, as sepsis occurs and the residual urine is converted into a highly septic fluid—as is inevitably the case when it becomes infected—systematic vesical evacuation and irrigation are necessary in all cases in which the patient will not submit to a radical operation. The benefit derived from catheterization, when the residual urine is perfectly healthy, is not due to the withdrawal of the fluid *per se*, but to the blunting of the hyperesthetic sensibility of the delicate nerves supplied to the prostatic urethra, by the passage of the catheter. The same result will occur from the passage of a solid bougie or sound, a much safer instrument than the catheter, or from the application of nitrate of silver solutions of varying strength to the *pars prostatica*.

It is well, in considering the advisability of the adoption of palliative catheter treatment in prostatic hypertrophy, to consider the average duration of life in patients who have once adopted the systematic use of that instrument. Mr. Reginald Harrison states that the average duration of catheter life is four years. I believe that this estimate is rather under the mark. I should say, from my own experience, that the period is about five years. The profession is wont to allow its judgment to be perverted by the occasional case of the old man who has passed the catheter, with impunity and comfort, for many years, apparently without any resulting pathological conditions. These are the exceptions, which merely serve to prove the rule and should be placed in the same category as the man who carries his catheter in his trousers pocket and who, without ever boiling or otherwise asepticizing the instrument, passes it into his bladder at frequent intervals, after lubricating it carefully with his own saliva. It is a singular fact that physicians and surgeons, who never think of scorning asepsis and antiseptics because of the occasional case of a fool who rushes in where angels would fear to tread, nevertheless base their advocacy of the routine use of the catheter upon occasional cases of prolonged catheter immunity such as the above mentioned. It must be remembered that once the prostatic becomes addicted to the use of the catheter, he must continue it the rest of his life. That his days are likely to be short is shown by what has been said on the subject of the average longevity of men with the catheter habit.

Three very important points that should be impressed upon the prostatic are: (1) That if palli-

ative measures, instituted at a relatively early period, do not inhibit the development of prostatic overgrowth, a slow but sure increase of the enlargement is inevitable and a change in the conformation of the prostatic urethra, with obstruction of the urinary way, is almost certain. (2) That the time will inevitably arrive when he will be compelled to take his choice between the habitual use of the catheter, which will almost of necessity shorten his days, and a radical operation for the relief of the prostatic obstruction. (3) That early operation, before the occurrence of septic and obstructive changes in the urinary way, which always develop sooner or later, is comparatively safe, the reverse being true when he is faced with an operation of necessity.

The time is not far distant when the surgery of the prostate will occupy as exalted a plane as ovariectomy. In the days when ovariectomy was performed only as a *dernier ressort*, and in cases which must inevitably prove fatal without it, the statistics of the operation were by no means flattering. Time has changed the position of the profession regarding ovarian tumors. An attempt is made nowadays to diagnose them early, and the period of election for operation is synchronous with the establishment of the diagnosis or the discovery of such conditions as warrant an exploratory operation. The favorable statistics of ovariectomy are now familiar to every one in the profession and are very flattering to the enterprise and skill of modern surgery and of American surgery in particular.

How different the picture presented by the surgery of the prostate? The genito-urinary surgeon is confronted, on the one hand, by the ignorance of the laity, an ignorance for which the profession is itself responsible and which leads the layman to believe, when he develops in advanced life the symptoms of urinary irritation and obstruction, that he is suffering from something which, as he expresses it, "every old man has," and, upon the other, with the fatuous notion of the profession at large that the disease is not only an inevitable consequence of senility but is remediable only by means of the systematic use of the catheter. The consequence of this ignorance is that cases are submitted to operation only when they have become so desperate, and the suffering so great, that for humanity's sake something must be done. The period of election for operation in prostatic disease should be the earliest moment after the condition has been diagnosed and measures prophylactic of serious increase in the size of the growth have been shown to be inefficacious. A radical operation should be performed before serious secondary infection and pressure changes occur in bladder, urethra and kidney. These changes will inevitably occur if the condition be allowed to go on, and, irrespective of what urine analysis shows, the probability of their existence in greater or less degree should be taken into consideration in every case of chronic obstruction of the urinary way. The period of election once established and radical operation upon the prostate being done at a time when the bladder and kidneys are compara-

tively healthy and free from infection, we will have some statistics of prostatic surgery worthy of attention. The statistics thus far presented do not show what can be accomplished by rational surgery of the prostate. They simply demonstrate that a certain percentage of patients do recover from operations performed upon the prostate under the most unfavorable circumstances. The author is of the opinion that the statistics of radical operations upon the prostate thus far presented are of no particular value and are absolutely no criterion of the relative mortality or success of the operation *per se*. Early diagnosis, followed in some cases by judicious means of palliation or of prophylaxis of permanent change of the prostate, and, failing of success with these measures, a radical operation—prostatectomy—should be the guiding principle in prostate surgery.

The technique of operations for prostatic disease has changed somewhat within the past few years. The popularity of some procedures has increased, while that of others has waned. The author's views upon the Ramm-White operation of castration for prostatic disease were very conservative from the beginning despite the multitudinous reported cures by the operation. The author to-day congratulates himself upon the conservatism which he exhibited at that time—a conservatism which was rather harshly criticised in certain quarters. The various mutilating operations upon the testes and cord have fallen into comparative desuetude. They have a limited range of application, it is true, but it is chiefly as tentative procedures in cases in which a rational radical operation is contra-indicated or refused that such operations are warrantable. There can be, however, under proper circumstances, no serious objection to their tentative employment, always providing the sexual powers have been lost.

The most rational method of dealing with prostatic hypertrophy and its congeners is the radical operation of prostatectomy. The suprapubic method was, until recently, the most popular form of operation and is the one which the author has most often performed. The author has, however, employed at various times, for some years, in suitable cases, the perineal method of prostatectomy, the principle of which is the same as that of the old perineal prostatectomy of Dittel. There has recently been an attempt in certain quarters to establish this as a new operation. It is not only not new, but, despite certain modifications of its technique, it is a lineal descendant of Dittel's old-time method. It is claimed by some of the more enthusiastic advocates of the method of perineal prostatectomy that it is applicable in all cases. This the author does not believe to be true. Many cases occur in which it is an utter impossibility to perform a thorough and complete operation by the perineum. It should be the operation of election when the tumors are accessible. When the patient has a short, deep, fat perineum and the prostatic overgrowths are, in the main, intravesical, it is sometimes an utter impossibility to operate by the perineal route. The suprapubic method—or the combined perineal

and suprapubic method—therefore, must be selected in such cases.

The electrocautery operation of Bottini, recently revived, has been very enthusiastically boomed in certain quarters as the routine operation in chronic prostatic disease. If one were to judge from many of the published reports of results of the Bottini operation, he must needs conclude that a method of treatment has been discovered which has revolutionized not only the surgery of the prostate, but the pathology and morbid anatomy of prostatic disease. It must be remembered that, no matter what operation is performed in advanced prostatic disease, certain secondary pathological conditions necessarily exist which have developed as a consequence of (1) urinary pressure and (2) infection.

The most striking feature of much of the reported clinical experience with the Bottini operation, especially as bearing upon its remote results, is that the incurable secondary conditions in prostatic disease which very often defeat the object of the surgeon who employs other radical methods of dealing with the obstruction, do not seem to exist in patients operated on by the electrocautery method. The author believes he is safe in saying that no operation performed in advanced prostatic disease will subvert the old familiar pathology of the disease and its secondary conditions to the very laudable desire of the surgeon permanently to relieve his patients. It must be remembered that, no matter what operation may be instituted for the radical cure of chronic prostatic disease, the surgeon who operates upon advanced cases is inevitably confronted with secondary conditions and complications that must necessarily modify the benefits which would otherwise be derived from a radical operation, if indeed they do not defeat the object of the surgeon altogether.

We have just cause for suspicion of the reports of radical operations on the prostate, of any kind whatsoever, which have resulted in so many recoveries that, in order to achieve such results, the every-day pathology and morbid anatomy of enlargement of the prostate and its secondary results and complications must necessarily be done away with for the special benefit of certain operators. Some very brilliant results from the Bottini operation have been reported. It is noteworthy that the earliest, most multitudinous and most brilliant reports emanated from the men of least experience and savored largely of the usual advertising methods of the specialistic *neonatum*. Some of the earlier reports of cases were hurried into print before the patients had scarcely time to recover from the immediate effects of the operation.

The safety of the operation has been exaggerated. Often only the immediate favorable results have been reported. It is only recently that the more conservative and philosophical men of the surgical profession have begun to appear in print with cases which seem to establish the value of the Bottini method in suitable cases beyond peradventure of doubt.

The author will attempt to forestall in a certain

degree, the adverse criticism which the foregoing remarks are likely to bring forth, by calling attention to the somewhat sinister fact that the brilliancy of the results thus far reported from all quarters in which the Bottini operation has been advocated can only be compared to that of the multitudinous reported operations of the Ramm-White method, with which the journals teemed a few years since.

The modification of the Bottini, suggested by the author when the operation was first revived, by operating through a perineal incision so as to give an opportunity for drainage and tamponage in case the latter were necessary, is attaining some popularity in certain quarters, and is a much more rational procedure than the Bottini operation proper. The truth of this statement can only be made apparent when the various fatalities incidental to the orthodox Bottini operation have been frankly and conscientiously reported. Whatever may be claimed for the Bottini operation, this much, at least, may be said: It is a surgical operation performed in the dark, and one which does not conform to the requirements of modern aseptic and antiseptic surgery, in that it does not provide for drainage, nor for the proper control of possible hemorrhage. That these objections are not theoretical is shown by incidental and accidental developments in the results of certain operators who perform the Bottini operation as a matter of routine.

A serious objection to the Bottini operation is that it is likely to be reserved for late cases, thus retarding the development of prostatic surgery in general. The rational surgery of the prostate demands an early radical removal of the tissue overgrowth which is the essence of the disease. Prostatic surgery must advance along these lines. It is admitted that there are certain cases in which the Bottini operation is especially applicable, cases in which there is a distinct median bladder obstruction of limited extent, and with which one or multiple incisions with the galvanocautery will suffice to free the vesical outlet and afford efficient bladder drainage, but in by far the majority of cases in which distinct prostatic tumors exist, the only operation which is rational is the radical removal of the morbid tissue. If this procedure be rational, it only remains to make it as safe as other operations of like importance. This, the author believes, can be done, but only by early diagnosis and early operation. What is most needed is a general recognition of the necessity and wisdom of early prostatectomy—pros-

tatectomy at a period when we have no secondary conditions to deal with.

HEMORRHAGIC INFARCTION OF THE KIDNEY, WITH REPORT OF A CASE.

By GEORGE P. DALE, M. D.,

of Dayton, Ohio.

The clinical symptoms of kidney infarction go to show that usually there is some change in the kidney allowing the presence of blood constituents in the urine. No doubt, there are a large number of kidney infarcts which occur without any evidence of their existence during the life of the patient and are only seen as a depressed scar so often observed on the autopsy table. Hematuria may be the immediate accompaniment of the initial chill and lumbar pain, or it may appear later.

The patient will usually give a history of previous heart disease, and the symptoms on the part of the kidney are ushered in by a sudden severe pain in the lumbar region, with possibly a chill followed by a diminution in the amount of urine. The urine soon contains blood, varying in amount with the extent of the disturbance. Pepper states: "Small emboli of the kidney may not declare themselves by any definite symptoms. In the case of larger infarcts, however, pain in the lumbar region and hematuria are distinctive symptoms. Also when emboli obstruct the renal vessels, any previously existing albuminuria increases notably."

The following is a brief clinical history of a case which entered the Cincinnati Hospital November 21, 1900, and which shows the great extent to which important functioning organs, as the heart and kidneys, can be disturbed and yet carry the patient through many hardships.

Patient, female, aged 21 years. Nativity, Irish. She has been in the United States about one year; working as a waitress. She entered the hospital complaining of shortness of breath and pain in the right lumbar region and back.

Personal history.—Uses alcoholics in small quantities. Denies venereal disease. Of her life in Ireland the patient says she worked daily in the fields, tilling the soil with a hoe. The work was hard and days long. Four years ago she had an attack of shortness of breath somewhat resembling the present one, but did not have the pain in the side. Does not remember how long she was sick, but returned to work in the fields afterward. Never had rheumatism. Present attack began about two weeks before admission,

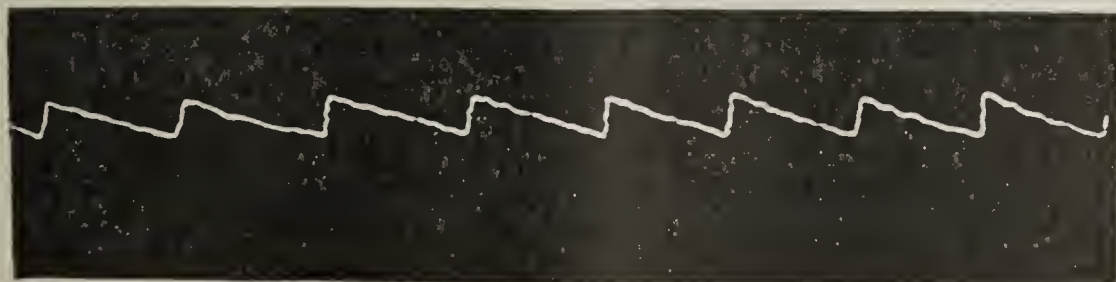


FIG. 1. Taken during administration of digitalis.

with shortness of breath on exertion, accompanied by moderate swelling of feet and legs. About 5 P. M. on the day before admission she had a sudden, severe pain in the right lumbar region. She says she never had pain in this locality before and this attack was very sudden. Had no chill.

Examination.—Pulse very irregular, weak, low tension. Heart: Apex-beat plainly visible and very forcible in sixth interspace, outside of nipple line and impulse diffused over considerable area. Percussion dullness extends from the left nipple line to the right border of the sternum. On auscultation the irregularity of action makes it difficult to distinguish rhythm of murmur. Palpation in right lumbar region causes much pain which is also increased by movement. Urine analysis: Urine obtained per catheter shortly after admission. Sp. G. 1032, very dark brown color; acid reaction; no sugar; large amount of albumin. Sediment, obtained by centrifuge, contains many large and small granular casts, a moderate number of epithelial casts, many pus- and bloodcells.

First treatment.—Rest in bed. Epsom salts 3j hourly for eight doses. Notes made from time to time show the partial recovery of the kidney and other features of the case and I give them here briefly.

Nov. 23.—Temperature was 102.8° last night; urine analysis about the same. Treatment: Tr. digitalis 10 drops every three hours. Lithia water every three hours.

Nov. 24.—Lithia water discontinued. Diuretin 15 grains every four hours. Voided 3 xxiv urine during the past 24 hours.

Nov. 30.—Heart action more regular and patient sleeps great deal. Urine shows diminution in amount of blood, but otherwise the same. (See figure 1).

Dec. 3.—White blood count 10,260.

Dec. 4.—Urine analysis: Sp. G. 1015; slightly alkaline reaction; light brown color; moderate amount of albumin. Sediment obtained by centrifuge. Few granular casts; triple phosphate crystals; few pus- and bloodcells.

Heart examination: Impulse of apex very marked and diffused over considerable area, but most intense about 1½ inch outside nipple line in the sixth interspace. Percussion dullness upward to third rib-line, to the right border of the sternum and to the nipple line on the left. Systolic murmur heard most intense over the mitral valve area. In left axilla and at the angle of the left scapula a faint systolic murmur can be heard, but not a clear transmission. A very loud murmur is heard over the apex, presystolic in time. Leukocyte count at 4 P. M. 11,700.

Dec. 9.—Tr. digitalis discontinued and diet increased from fluids to a light solid food.

Dec. 11.—Leukocyte count 13,000. Urine analysis. Sp. G. 1010; acid reaction; moderate amount of albumin after filtration; few granular casts; many puscells; no blood.

Dec. 17.—Amount of pus in urine increased.

but no edema in lower extremities. Heart again in condition delirium cordis; urotropin discontinued; R Strych. sulph. 1/60 grain, Tr. digitalis 10 drops every three hours.

Feb. 1.—Some improvement. Urine analysis: Sp. G. 1018; slightly acid; slight amount of albumin after filtration; few granular casts; few puscells.

Feb. 18.—Much improved; stimulation discontinued.

Mar. 8.—Discharged from hospital at her own request.

Patient returned to the hospital after having been out less than a month, during which time she says she has done no hard work, but recently the effort necessary to ascend some stairs has made her much worse. Heart condition much the same except for an increase in the transverse dullness. She remained this time about a month, went out and returned about ten days later and remained five weeks. She was discharged June 29, 1901, feeling in fairly good condition and a few days later she returned to Ireland and was heard from after her arrival there.

The accompanying pulse tracings were made during the first stay in the hospital and were taken from the radial pulse.

MUTISM AND APHASIA.

A CLINICAL LECTURE.

By HERMANN GUTZMANN, M. D.,

of Berlin, Germany.

Authorized Translation by Max R. Dinkelspiel, M. D.,

(continued from page 58.)

There are, of course, some races in whom gestures play an important role, for instance, gestures are substituted in Southern Italy almost entirely for the voice, and whosoever has seen two Neapolitan girls converse from house to house by means of gestures, notwithstanding that their readiness of tongue was not in the slightest affected, will be convinced that conversation can be accomplished without the voice. Only those who have not practised this sort of speech will not be able thus to communicate with one another and will find themselves in the same position as those whose speech is perfect and who try to converse with a deaf-mute. In order that gestural speech may be available for the expression of all thoughts, it will have to go through such an extensive state of development that finally it can be no longer appreciated by the normal individual.

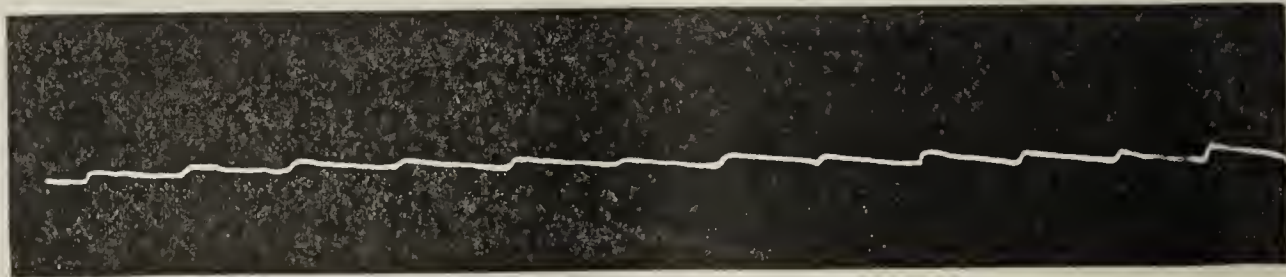


FIG. 2. Taken after administration of digitalis had ceased.

Dec. 20.—Temperature 99.2° at 9 A. M. yesterday and 103° at 6 P. M.; stools frequent and thin with much mucus; fluid diet; bismuth subgallate 15 grains every three hours p. r. n.; other medication discontinued; washing bladder once daily with potassium permanganate 1:6000.

Dec. 28.—Bowel condition much improved.

Jan. 4.—Patient had chill yesterday afternoon, followed by temperature 104° and sweating.

Jan. 6.—R Urotropin 5 grains every three hours.

Jan. 11.—Temperature very irregular, varying from 101° to subnormal.

Jan. 26.—Chill this morning and became very cyanotic, temperature dropping to 94° by mouth.

Jan. 27.—Face has been edematous for a couple of days,

The deaf-mute, who only employs gestures, isolates himself from his fellow-beings. But, as he lives with them and must live with them, and as he finally receives more from his fellow-men than he is able to give them in the way of speech, the acquisition of the latter naturally only affects the interests of the deaf-mute himself.

Motor Aphasia.—I here present to you a gentleman who was deprived of his speech about a year and a half ago by a stroke of apoplexy. At the same time he became paralyzed on the right

side of the face and body. This paralysis has gradually decreased to the extent that he is able to walk with the aid of a cane, although his speech has not yet returned. Everything that he wishes to say he expresses by means of the sequence of syllables wa-wa-wa, although he understands without difficulty what is said to him. If you ask him about certain articles which are present in the room, he immediately shows them to you; and if you propound questions to him, which he is enabled to answer by nodding or shaking the head for the purpose of conveying the words "yes" and "no", he answers them correctly. Obviously his appreciation of speech has not suffered. Likewise he is able to read written and printed words, but perceptibly soon tires. His power of writing is extremely limited, independent of the fact that he must write with his left hand; and he constantly makes many errors and can hardly write one word correctly. Even syllables, which are given to him to write, he copies incorrectly, all this showing that the power of writing is markedly disturbed. Spontaneous speech, as already stated, is confined to the senseless syllables, "wa-wa-wa". It is impossible for him to repeat even the senseless syllables, and even if the syllable "wa" is dictated to him he is not able to repeat it, voluntarily. This shows that, when he spontaneously employs the syllable "wa" for purposes of expression, it is performed more automatically than voluntarily, a very peculiar phenomenon which can almost always be demonstrated in such grave motor aphasias in which several syllables and sequences of words remain.

The treatment for these disturbances consists in having the patient follow up systematic exercises in articulation, beginning with the simplest ones, providing the process has run its course. It is well known that in no one are the speech-centers developed from birth, but only become developed to the extent that they are found in the adult after long training and imitation. The indication is, therefore, to develop the speech in the patient with motor aphasia in the same manner that speech is acquired by the child, that is, by imitation, employing for this purpose both the power of hearing and sight. Therefore the exercises of individual sounds should be conducted before a mirror, and he should be instructed to watch the motions of the mouth of his teacher with the greatest of care. The instruction should, of course, begin with easily combined vowels like *a, e, i*, then articulation practised by means of such letters as *p, b, and n*, and then these letters combined so that the patient will be able to repeat, *mamma, papa*, etc. The words should be written and writing exercises practised.

The subject will become clear to you if you will again observe Fig I. The faculty of speech has not yet been acquired on the way from *F* to *M*, although repetition takes place correctly, via *a*. It therefore becomes necessary also to develop the path from *F* to *M*, which is accomplished by showing pictures to the patient, representing the words he is able to repeat. These words, however, are not spoken to him, but he is required to speak them himself after the respective pictures are pointed out. I will not dwell here upon the details of these exercises, as it

would entail another practical demonstration to you of the whole physiology of speech, for whoever is interested in motor-aphasia and its treatment must be able completely to master the physiology of speech. Together with the methodical exercises in articulating and speaking, we also have exercises in writing performed with the left hand, presuming that the exercises will influence the right side of the brain and more easily establish the articulatory function of a new center. All recent clinical observations more than ever show that a lost left speech-center may be, and in fact is, supplanted by a right speech-center and in a corresponding area. By this means we are enabled, even in long-persisting motor aphasia, to obtain splendid results, provided that the other cerebral functions have not been particularly affected.

	Spoken Language			Written Language					
	Speech Conception	Spontaneous Speech	Repeating	Conception of Writing	Reading Aloud	Spontaneous Writing	Writing on Dictation	Copying	
1 Cortical Sensory Aphasia	—	+P	—	—	—	—	—	—	Sensory Aphasia
2 Subcortical Aphasia	—	+	—	+	+	+	—	—	
3 Transcortical Aphasia	—	+P	+	—	without C	+	+	+	
4 Cortical Motor Aphasia	+	—	—	—	—	—	—	+	Motor Aphasia
5 Subcortical Motor Aphasia	+	—	—	+	—	+	+	+	
6 Transcortical Motor Aphasia	+	—	+	+	+	—	+	+	
7 Conduction Aphasia	+	+P	+P	—	—	—	—	+	?
8 Subcortical Alexia				—	—	+	+	—	=Paralysis of Arm
9 Subcortical Agraphia				+	+	—	—	—	
10 Cortical Alexia	Via	A.C.	B	—	—	—	—	—	
11 Cortical Agraphia				+	+	—	—	—	=Paralysis of Arm
12 Conduction Agraphia				+	+	—	—	—	
13 Transcortical Alexia				—	—	+	+	+	
14 Transcortical Agraphia				+	+	—	—	+	

P=Paraphasia
? Paraphasia

FIG. 3.

Formerly the prognosis was viewed from the standpoint of Kussmaul, who states in his noted book that the prognosis depends upon the duration of the aphasia. I had here under treatment a military officer, who, in consequence of an injury sustained by falling from a horse, had for ten years suffered as a result of the traumatism, first becoming so asphasic and then dysphasic that no one could understand him. Nevertheless, within a few months it was possible so to restore him, by means of systematic exercises, as to provide him with speech that was generally well understood.

Easier to treat are those cases which we must classify under the group of subcortical motor-aphasia. As an example of this variety I show you here a gentleman, 44 years of age, a former bank official, who for one and a half years has suffered from grave central disturbance of speech, as a result of apoplexy. The paralysis of the right side of his body, with the exception of the right side of the face, has fairly well receded, although the motor power of the right hand is still plainly less than that of the left one. You do not notice much more of the speech defect itself, as he has exercised for some time, and yet you plainly recognize the difficulty entailed in the speech movements. The patient can repeat everything, although with difficulty, as well

as express his thoughts. There were not any disturbances of the powers of writing or reading. He has even occupied the time that has elapsed during his grave illness in the pursuit of literary work, and is now engaged in publishing a scientific work on banking.

If you will reflect upon the aggregation of individual symptoms of the central disturbances of speech, as indicated by the following illustration, you will find that the disturbance of the power of writing and reading in cortical motor aphasia chiefly differentiates it from subcortical motor aphasia. Such a schematic diagram has a particular value, in so far as it prevents us from overlooking important points in the examination of cases of aphasia. It is obvious that the individual categories of aphasia as delineated in this diagram are seldom observed in such a pure form, for the cortical motor aphasia is usually also accompanied by transcortical motor disturbances. I called attention to the latter in the first case of aphasia that I showed you, and it was exemplified by the fact that, although the patient was able to *repeat* the word "Baum" (tree), he could not follow up his conception of the word with a stimulation of the motor center.

Sensory disturbances are also very frequently associated with motor aphasia, only they are so obscured by the motor picture that hardly any attention is paid to them. In the case of the first gentleman which I introduced to you, the central disturbance was first manifested by evidences of fatigue when he listened for some time. While he distinctly showed, during the first few minutes of his attention, that he understood what was said to him, nevertheless, as the test progressed, he became fatigued to such an extent that he could no longer concentrate his attention upon what was taking place. At first this manifestation escaped me, because I only tested the perception of the patient with a single word, and even you yourselves have not noticed any disturbance of perception during the test that was performed in your presence.

While you have seen that the patient last shown to you has made a cheerful impression, you must have also noticed that the first patient shown to you was apparently the subject of psychical depression. You saw that he became more sorrowful as the test proceeded, and for this reason I ceased my examinations. I wish to state that frequently he even weeps. Such a depression of spirit does not necessarily have to be dependent upon an extension of the process or the occurrence of an encephalitis. I have always found these conditions in such cases of absolute motor aphasia and particularly so when the patients were highly intelligent individuals. This frame of mind in the patients is caused by the feeling of helplessness toward their fellow-men and the continual repeated experience that no one understands what they wish to say. If we for a moment attempt to imagine ourselves in such a position, we can hardly wonder at their frame of mind. It is therefore not unimportant in the treatment of this disease to try to overcome such psychical derangements. Once before I called attention to this matter, in a small thesis of mine entitled "Concerning the Handling of Persons with

Aphasia," and called attention to the fact that the surroundings of such a patient must be suitable to his condition and, furthermore, that those around him must accustom themselves to ascertain his wishes and to make his position as easy and as comfortable as possible. Furthermore, the patient himself must try to express his thoughts by characteristic signs, so as to facilitate the recognition of his wishes by those around him.

It is in such cases of total aphasia as present in this gentleman that gestural speech is pre-eminently of use, and we will next try to supply him with the natural gestures for the most useful articles and for the purpose of aiding him to communicate his wishes. Perhaps it may not be unessential for you gentlemen to know some of the characteristic signs of gestural speech.

You will soon see that he will recognize these gestures as old acquaintances. This gesture for *yes* and *no*, the nodding and shaking of the head, is well known to you all. For the purpose of indicating various articles of food, gestures are made by pointing into the air and then simulating the motions that are concerned in eating: the hand of the patient is so placed as if it contained something to eat, is then placed in the direction of the mouth and prehension and mastication imitated. For the purpose of indicating the word *soup*, the motion of blowing upon the hot liquid for the purpose of cooling and taking it out of the plate with the spoon is likewise imitated. Meat is so designated that the patient presses upon the musculature of the left arm with the right hand and simulates the motion of eating (in this case the right arm was paralyzed and unavailable). For designating the word *butter* the patient imitates the motions that are concerned in cutting the butter and spreading the same upon the bread with a knife. If he wants *salt*, he is supposed to point to his mouth and then imitate the motion necessary for sprinkling the salt with the fingers. For *beverages*, the hand is pointed toward the mouth and the motions concerned in drinking imitated. *Milk* is signified by the motions concerned in milking, *water* by imitating the motions of a pump-handle, *knife* and *fork* are easily indicated by the usual movements accompanying their employment, the *fork* by motions simulating thrusting, the *knife* by imitating the motions of cutting and the *spoon* by indicating the motions required for obtaining fluids with it. Articles of apparel are best indicated by touching them or by pointing to those portions of the body that they cover. If this is not understood or the clothes are not available, the motions indicating how they are put on are simulated. Adjectives are thus indicated: For *strong* the fist is clenched and tightly placed against one of the muscles; *weak*, on the other hand, is indicated by relaxing the tension of the muscle previously used for indicating strength and the gesture intensified by shaking the head at the same time. The word *healthy* is indicated by stroking the body and adding thereto the sign that represents *strong*. *Illness* is indicated by placing the hands upon the abdomen, stroking the hand thereover, at the same time giving the sign indicating weakness. *Hunger* and *thirst* are univer-

sally understood by signs simulating the motions of eating and drinking. *Fatigue* is indicated by hanging the head and closing the eyes.

There is no room in this article to quote more examples of gestural movements. The natural gestures are so simple and so easily understood by us all, when once accustomed to them, that no physician would find it difficult here and there to supply special gestures. You also find in the well-known book of Schmalz, "Deaf Mutes and Their Education," published in Dresden and Leipzig in 1848, a very pretty compilation of the various gestures concerned in indicating articles, persons, domestic animals, peculiarities and the various conditions of life.

I consider the employment of gestures only of value as an auxiliary measure, when they become a matter of necessity, and only applicable in cases in which the patient is absolutely unable to make himself understood by words or any other manner of speech. Considering the awkwardness of most individuals in conducting gestures, and in view of the little experience they possess in this direction, this naturally places the aphasia patients in an uncomfortable position, causing them to become impatient easily, owing to the futile efforts which they exert in making themselves understood. Therefore I believe that natural gestures are indicated at least during the early stages of grave aphasia.

Finally, I introduce to you a young girl, 24 years of age, who has been deprived of her speech for one and one quarter years. She comes from an absolutely healthy family. Her father is a forester and has always been healthy, as has her mother. Her brothers and sisters are alive and healthy. She herself, however, has suffered from an attack, the course of which is described by her mother, but not sufficiently clear to enable us to picture it to ourselves. It is alleged that she had felt a crawling sensation in the right arm and leg and that these extremities had also become the seat of a paralysis. Nothing certain can be elicited from the obscure description of the symptoms and at present there are absolutely no signs of paralysis. The young girl walks without any difficulty, the motor power on the right side is doubtless more marked than upon the left, the tongue is protruded without deviation and the face shows a normal and regular pose. Examination of the individual cutaneous sensations shows nothing abnormal. Cold and heat, pointed and blunt instruments, are all immediately and correctly differentiated by the patient, and neither hypoaesthesia nor hyperaesthesia are present anywhere. The only abnormal symptom of motion is seen in the tongue, which, although it is protruded straight from the mouth, as already stated, nevertheless is somewhat tremulous. The young lady herself is somewhat depressed, a condition, as shown in the first case I presented to you, is frequently present in cases of motor aphasia of long duration. If we ask her anything she attempts to speak. She tries several times to apply her voice; moves the lips, lower jaw and tongue, but without accomplishing the desired utterance successfully, whereupon she gives up making further efforts to speak

and indicates "no" by motions of her head. Here and there she also adds, "it will not go". Spontaneous speech, therefore, is as good as lost. Only individual words are occasionally spoken, like "eating", "drinking", "sleeping", etc. In some instances she herself finds the correct designation for an object that is shown to her.

In repeating, however, a marked characteristic is manifested. Almost every word is immediately repeated, but more difficult and longer words are always distorted by her, as for instance the word "Bleistift" is repeated as "Fleischstift". Small sentences, on the other hand, are even more difficult for her to repeat. She forgets the last words of the sentences and obviously the sounds that have been transmitted to her have not been retained for a sufficient length of time to enable her subsequently to repeat them. If we pronounce syllables to her which do not convey any sense, she is not able to repeat the simplest of them. The verbal intonation formerly known to her can still to some degree be associated with the motions of speech, but not in connection with articular utterances that are unknown to her or which possess no meaning. If I pronounce the word "Tisch", she correctly repeats it, but if I reverse it and spell it backwards, she is not able to repeat it. The same manifestation is present when she reads. If I write the word, "laufen", she immediately and fluently reads it, but if I write the word spelled backwards, which to her means nothing, she is not able to repeat it, although she makes an effort to do so by pronouncing the first letter. If we give her a book and allow her to make an effort at reading, we will note that she reads the first five or six words correctly, then slips, and, by the time she reaches the ninth word, can read no farther.

The visual perception so quickly tires her, that it is impossible for her to read any length of time. She can write her name, but other dictated words or meaningless syllables cannot be written by her.

In the presence of all these manifestations, however, the comprehension of speech is totally preserved, although in the case of this patient, also, fatigue sets in after a lengthy dictation; her attention abates, and, in consequence thereof, her power of understanding also ceases.

If we again summarize the symptoms, we have the following: Preservation of the conception of speech, diminishment to almost total absence of spontaneous speech, a disturbance of the power of repetition, particularly an impossibility to repeat meaningless syllables, involvement of the power of reading and writing and a marked flagging of memory, with fatigue.

Although it must appear remarkable that a young girl of this age should be affected with organic disturbance of speech, we are nevertheless compelled to assume this, as in the present case there is not a single cogent factor pointing to hysteria. The whole clinical picture in every way represents the symptom complex of a cortical motor aphasia. The hysterical motor aphasia is particularly differentiated from the present condition by the fact that the patients under no circumstances undertake to make an effort at speaking. Their will-power is so in abeyance and out of action, that they do not attempt

the slightest effort at speaking and are completely mute. Such a condition, on the other hand, we never find in cases of cortical motor aphasia, but, on the contrary, the patients make at least some effort at speaking. In the first case that I showed you, a case which was one of absolute motor aphasia, automatic movements of speech were made for the purpose of articulating the syllables, wa-wa-wa, and in this case the patient can even speak a few words and repeat some. This is never the case in hysterical aphasia.

Formerly Charcot believed that hysterical and organic aphasia could be differentiated by the fact that disturbances of the power of writing and reading were never present in a case of hysterical aphasia. This view Charcot later corrected himself, as disturbances of reading and writing are sometimes actually present in many hysterical cases, although very rarely; furthermore, this disturbance would indicate that this case was one of organic aphasia.

The treatment is obviously the same, as delineated to you in the previous cases, and you will soon hear that this patient has also learned a few of the syllables and combinations thereof which we have practised with her the past few days.

CENTRALBLATT FUER INNERE MEDICIN.

March 15, 1902.

On the Staining of Blood. Preliminary Communication.

R. MAY and L. GRUENWALD.

The authors direct attention to the fact that various specimens of eosin and methylene blue give different staining results; that it makes a great deal of difference whether the specimens are washed with tap water or with distilled water and whether they are washed under a stream of water or merely placed in a vessel containing that liquid; and that the age of the staining preparation makes much difference in the results. The most satisfactory method which they have been able to work out is as follows: One liter of 0.1 per cent. eosin is mixed with the same quantity of methylene blue of the same strength. After standing for some days, this is filtered in a suction filter, and the filtrate is washed until nearly colorless. The filtrate of the stain, which is the active part of it, is then left in the filter as a dark mass, consisting of granules. This is soluble, in small amounts, in cold water; more freely, in warm water; also in ethyl alcohol, chloroform and acetone, and particularly well in methyl alcohol. Saturated solutions in methyl alcohol are best. It is particularly important that one does not need to fix preparations before staining in this solution. The stain can be kept in a staining-glass that can be well closed, and can be repeatedly used. The blood freshly smeared on a slide, after drying, is placed in the stain for about 2 minutes and then washed in distilled water to which a few drops of the solution have been added. The blood preparation is then ready for microscopical examination in about 5 minutes. The erythrocytes are stained a bright red; the nuclei of the leukocytes a fairly deep blue; the nuclei of the mastcells are easily seen; the epsilon granules stain a fine bright red; the precipitates are avoided; and the various elements of the cells are brought out in a way which the authors state is not secured by any other method of staining. It is particularly easy to distinguish the alpha from the epsilon cells. [D. L. E.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending July 12, 1902:

SMALLPOX—United States.

			Cases...	Deaths.
CALIFORNIA	San Francisco	June 22-29	3	
	Stockton	June 1-30	14	
GEORGIA	Augusta	June 1-30		1
	Evansville	June 28-July 5 ..	2	
INDIANA	Wichita	June 28-July 5 ..	2	
	Covington	June 28-July 5 ..	5	
KANSAS	Cumberland	June 1-30	2	
	Boston	June 28-July 5 ..	6	
KENTUCKY	Cambridge	June 28-July 5 ..	6	
	Melrose	June 28-July 5 ..		1
MARYLAND	Somerville	June 28-July 5 ..	2	
	Detroit	June 28-July 5 ..	3	
MASSACHUSETTS	Minneapolis	May 17-July 5 ..	17	
	St. Louis	June 30-July 6 ..	7	
MICHIGAN	Omaha	June 28-July 5 ..	3	
MINNESOTA	Nashua	June 28-July 5 ..	1	
MISSOURI	Camden	June 28-July 5 ..	1	
NEBRASKA	Elizabeth	Mar. 29-June 21	24	3
NEW HAMPSHIRE	Hudson County, Jersey City included..	June 22-July 6 ..	30	8
NEW JERSEY	Newark	June 28-July 5 ..	10	5
	New York	June 28-July 5 ..	26	11
NEW YORK	Beaufort(vicinity of)	May 15-July 4 ..	9	
NORTH CAROLINA	Cincinnati	June 27-July 4 ..	7	
OHIO	Cleveland	June 28-July 5 ..	27	6
	Dayton	June 28-July 5 ..	2	
	Youngstown	June 21-28	1	
OREGON	Portland	July 1	26	
PENNSYLVANIA	Erie	June 28-July 5 ..	2	
	Johnstown	June 28-July 5 ..	8	
	McKeesport	June 28-July 5 ..	3	
	Philadelphia	June 28-July 5 ..	7	2
	Pittsburg	June 28-July 5 ..	14	2
TENNESSEE	Memphis	June 28-July 5 ..	2	
WISCONSIN	Green Bay	June 29-July 6 ..	2	
	Milwaukee	June 28-July 5 ..	4	

SMALLPOX—Foreign.

AUSTRIA	Prague	June 14-21	3	
BELGIUM	Antwerp	June 7-21	3	3
BRAZIL	Pernambuco	May 15-31		14
CANADA	Winnipeg	June 7-28	3	
CHINA	Hongkong ..	May 17-24	1	
COLOMBIA	Panama	June 23-30	5	
FRANCE	Paris	June 14-21		1
	St. Etienne	May 15-31	1	
GREAT BRITAIN	Birmingham	June 14-28	13	
	Liverpool	June 14-28	4	1
	London	June 14-21	107	24
INDIA	Bombay	June 3-10		11
	Calcutta	May 31-June 7 ..		1
	Madras	May 31-June 6 ..		1
ITALY	Naples	June 7-14	6	
	Palermo	June 14-21	11	1
JAPAN	Yokohama	May 31-June 7 ..	1	
MEXICO	City of Mexico	June 22-29	2	1
	Vera Cruz	June 21-28	1	2
NETHERLANDS	Rotterdam	June 14-28	1	
RUSSIA	Moscow	May 31-June 4 ..	34	9
	Odessa	June 14-21	6	1
	St. Petersburg	June 7-21	27	2
STRAITS SETTLEMENTS	Singapore	May 10-17		1
SWITZERLAND	Geneva	May 31-June 14 ..	2	

YELLOW FEVER.

BRAZIL	Bahia	June 7-14	2	
COLOMBIA	Panama	June 23-30	6	2
MEXICO	Coatzacoalcos	June 14-21	10	5
	Vera Cruz	June 21-28	21	10

PLAGUE.

BRAZIL	Pernambuco	May 15-31	13	
CHINA	Hongkong	May 17-24	33	3
	Macao	June 3	Present.	
INDIA	Bombay	June 3-10	101	
	Calcutta	May 31-June 7 ..	90	
TURKEY	Pera	July 1	Declared.	

CHOLERA.

CHINA	Hongkong	May 12-24	33	31
INDIA	Bombay	June 3-10		2
	Calcutta	May 31-June 7 ..		51
JAPAN	Saga Ken	June 16	26	8
STRAITS SETTLEMENTS	Singapore	May 10-17		92

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8.

VOL. X, NO. 4

JULY 26, 1902

\$5.00 PER ANNUM

The Summer Complaints of Young Children.—

In this issue of the *Journal* we present a series of valuable papers on the intestinal disorders of infants and young children. The advance of preventive medicine is shown in no field of practice more conspicuously than in this. The day for excessive drug-ging has gone by; the time has come for attacking disease at its fountain head, its causation. We seek for the ounce of prevention rather than for the pound of cure.

These facts are emphasized in the papers which we present from the pens of writers who have a just claim to be regarded as authorities. The reader must be impressed with the minimum reliance that is placed upon mere drugs; with the supreme importance that is attached to the proper feeding and the general hygiene in such cases. The season is now upon us when the largest number of such cases may be looked for. August and September are still ahead, and experience has shown that these two months are especially marked by a high mortality from the summer diarrheas of infants. The season thus far has been rather favorable, for we have not had our due allowance of hot weather, but there is no certainty that we may not make up for this deficiency in the part of the summer that remains.

Convulsions in Childhood.—This subject has recently been thoroughly well reviewed at the Sixth French Medical Congress, held at Toulouse last April. D'Espine, of Geneva, discussed the history, symptomatology and statistics of essential, idiopathic convulsions, which include eclampsia, spasm of the glottis and tetany. From statistics collected from children's hospitals in Europe, eclampsia occurred 62 times, laryngospasm 51 times and tetany 20 times among 10,000 children under 15 years of age. The combined statistics of Escherich and Baginsky, the latest and most accurate, show eclampsia in 61 per cent., spasm of the glottis in 33 per cent. and tetany in 6 per cent. of cases. Hyperexcitability of the nervous centers furnishes the prodromal symptoms, which may be subjective, as hyperesthesia, anger or emotion; or objective,

as increased tendon reflexes or galvanic hyperexcitability. Convulsions in young infants are but exceptionally typically epileptiform, being, as a rule, irregularly tonic and clonic. They may be partial or general, always following the same line of extension, and are usually bilateral and symmetrical. Spasm of the glottis is but localized eclampsia, and is intimately related to digestive disturbances. It is frequently noted during the first year, especially in winter. Like eclampsia, tetany is most frequently but a symptom and not an essential disease, though it may very rarely exist as an idiopathic, almost always fatal, condition. Convulsions in childhood, therefore, may be external, clonic or tonic or purely tonic, eclampsia; and internal, either laryngospasm or tetany, depending upon the localization of the action of the toxin.

Moussous, of Bordeaux, discussed the pathology, prognosis and treatment of convulsions in children. As the nervous system of children offers less resistance to injurious agents than that of adults, convulsions result more easily. Thus it is that they appear with all conditions, both of great and small severity. Some children have a tendency to convulsions with every illness, even through later life; others never have convulsive attacks after puberty, and in others convulsions are but the precursor of future nervous disease, such as epilepsy, neurasthenia, insanity, etc. The family history, ancestry, habits, etc., will be of aid in the prognosis. In the treatment of convulsions, the cause must be found out and, if possible, removed. A warm bath is always advised, because it cannot do harm, no matter what the cause of the convulsions be. With high temperature, a cold bath is better. Ice to the head is always indicated. In severe or prolonged convulsions, ether or chloroform will be of use, administered only long enough to quiet the child. Venesection or leeches may do good when an intoxication is suspected. In some cases injections of normal salt solution, inhalations of oxygen and mild counterirritation may be used. For laryngospasm immediate revulsion is necessary, with rhythmical traction of the tongue. Chloral, bromides and anti-pyrin are to be given, preferably by enema. Lum-

bar puncture, of use for diagnosis, may also be of service therapeutically. After recovery from the convulsive attack, the cause of the condition must be treated. Bézy, of Toulouse, discussed the differential diagnosis of convulsions in children, due to hysteria, eclampsia or epilepsy. Ausset, of Lille, called attention to the absence of the initial cry or aura in eclampsia, a positive means of distinguishing epilepsy from eclampsia or hysteria. The latter is only seen in older children.

The Value of a Physician's Services.—When a judge upon the bench takes upon himself the task of regulating a doctor's charges, and makes out an itemized schedule, the result is likely to be of interest to all medical men. This has just happened in Pennsylvania. A surgeon of Philadelphia rendered a bill, it is alleged, of \$317,000 against the estate of a deceased millionaire. About \$190,000 of this, it is alleged, was for professional services, while the balance was for alleged investments which the decedent was said to have made for the surgeon, not of money advanced, but merely from gratitude. The case has attracted wide notice from the magnitude of the sums named.

Judge Over, of Pittsburg, in adjudicating the surgeon's claim, allowed him \$29,239.25. This is based upon the following schedule, as printed in the *Philadelphia Press*:

1899—June 14, examination	\$50.00
June 14, three days, office	30.00
July, 31 days	310.00
Add interest	459.22
Aug., 29 days	340.03
Sept., 27 days	315.22
Oct., 22 days	767.25
Nov., 28 days	324.10
Dec., 31 days	357.28
1900—Jan., 17 days office, two weeks Hot Springs	1,801.57
Feb., 23 days	262.78
Mar., 31 days	352.62
Apr., 30 days	339.75
May, 31 days	349.52
Jun., 30 days	336.75
Jun., 100 hotel visits	4,490.00
July, 4 days office, 14 days (doctor's vacation), 22 days, 22 telephone communications	1,866.22
Sept., 18 hotel visits, Pocono trip	1,813.94
Oct., 22 hotel visits	2,425.80
Nov., 30 days, hotel visits	3,292.50
Dec., 31 days, hotel visits	3,386.75
1901—Jan., 8 visits, 1 day Harrisburg and 44 telephone communications	2,305.50
Feb., 10 Harrisburg visits, 36 telephone communications	2,359.85
Mar., 3 visits and 2 days	1,293.00
Total	\$29,239.25

It is difficult to decipher the *pro rata* in all the

above charges, but this is probably because the services were not all rendered in one place. The patient seems to have traveled about from one place to another, and to have called upon his surgeon to do considerable traveling with him, but the distances do not appear to have been great. The court allowed \$100 for a visit to Atlantic City, \$5 for a telephone call, and \$40 a day while in attendance at Atlantic City. One claim of \$320 per night, or \$40 per hour, was disallowed by the judge as unreasonable. There seems to be an error in the sum total, but this is evidently due to including principal and interest together in the fourth item.

The value of a physician's services is often a matter between himself and his patient, but when the question comes into an orphans' court, the ideas of judges and doctors are not always in accord. Judge Over in this case has broken the record for "scaling down," but that was possibly because he had such an unusual opportunity to do so.

The Diagnosis of Heart Disease.—The physical diagnosis of valvular heart disease from the time of Laennec to the present day has interested and baffled the medical profession. In general it may be said that there are three methods by which it is studied: First, and almost invariably, the clinical method, that is to say, the careful study of the manifestations during life; second, the mechanical method, a careful study of the anatomy of the heart and of the dynamics of fluids in pumps and elastic tubes, often materially aided by the construction of various forms of apparatus designed to represent the cardiovascular mechanism; and, third, the control of clinical investigation by post mortem examination of the heart. Naturally the third is the court of last resort, and it may be supposed in time that it will solve all the questions that now puzzle us. That it is so little followed at the present day is due largely, we think, to the fault of the pathologist, whose chief concern with hearts is not their mechanical perfection, but the pathological changes of the muscles and the lining membranes. How often it happens that a pathologist will decide regarding the competency of a valve by merely thrusting his fingers into the orifice, and how frequently, in an effort to expose the interior to inspection, the delicate orifices of the heart are so ruthlessly cut that we can no longer gain any information regarding them. Perhaps it is not so important to know the precise valve involved as it is to know the condition of the heart; at least this is what the therapists constantly claim. Yet we believe that many cases of heart disease present indications for treatment that have hitherto been

either inadequately studied or wholly neglected, and that in heart disease, as in all other conditions, accuracy in diagnosis will ultimately lead to certainty in therapeutics.

The Cannon Ball Farm.—As there is considerable dissatisfaction expressed in Philadelphia over the proposition to locate the Municipal Hospital upon a tract of land known as the "Cannon Ball Farm," and as we have no editorial knowledge of the exact conditions involved, we have arranged to have the proposed site inspected by a very well qualified physician and sanitarian. His report will appear in the next issue of this *Journal*.

We think this is an occasion for the services of the physician in public affairs, rather than of the "doctor in politics," and our desire and intention are to arrive at an unprejudiced statement of opinion for the enlightenment of our readers.

This important public measure should not be obscured by mere political prejudice. It is primarily a medical and sanitary question.

Mr. Jonathan Hutchinson Again.—The *Practitioner* has been taking Mr. Hutchinson severely to task for his latest brand-new theory. Mr. Hutchinson, having determined the fact that leprosy is caused by a fish diet, has started out for pastures new, and recently delivered a popular lecture in London in which, according to the *London Times*, he asserted that the increase in cancer is due to the increased use of arsenic as a drug. This novel theory is so truly Hutchinsonian that we welcome it, not for what it is worth (for we fear it is not worth much), but for the light it continues to throw on what the *Practitioner* calls Mr. Hutchinson's "ratiocinative process." By way of reassuring the public, however, Mr. Hutchinson says that arsenic in beer is not to be feared, as it may merely "act as a tonic" when taken in that beverage. It is arsenic as a drug, and arsenic in wall-paper, that causes cancer. The Briton can drink his arsenious beer in peace—even if he does get multiple neuritis from it. But let him avoid Fowler's solution and green wall-paper if he would escape cancer. Mr. Hutchinson and the editor of the *Practitioner* are contributing on this subject not a little to the gaiety of the profession.

Current Comment.

THE NURSEMAID OF THE FUTURE.

A school for nursemaids has recently been established in Boston. They are instructed in the care of children, and are taught how to prepare food for them and apply simple

remedies. Doubtless examinations will have to be passed, and in due course diplomas or certificates will follow, and the occupation of nursemaid will blossom into a "profession." What with the new nurse, the registered midwife, the certified masseuse, the professor of "breathing exercises," and the qualified nursemaid, it seems not unlikely that before long the doctor will find himself in the position of Othello when his occupation was gone.

—*The Practitioner*.

CONCEALMENT OF PLAGUE.

A Hong Kong correspondent reports that during the early part of May four or five cases of bubonic plague were reported or discovered daily, and that, while every effort was made to discover the early cases, the co-operation of the Chinese was not obtained. Some of the cases apparently were discovered only when the bodies were dumped out on the streets by unknown parties. This throws a little light on San Francisco possibilities. If in Hong Kong, with every effort being made to reveal—not to conceal—plague, including regular house-to-house visitation, such difficulties are encountered, how much better a chance for its concealment must exist in San Francisco, where not only the Chinese but the civil authorities are actively interested in the suppression of all facts.

—*Journal of the American Medical Association*.

Correspondence.

REPORT OF A CASE IN WHICH A BABY SWALLOWED A RUBBER NIPPLE.

By JESSIE L. HERRICK, M. D., of Elmira, N. Y.

To the Editor of the *Philadelphia Medical Journal*:

I have on my desk a black rubber nipple which measures 2 inches in length and one and a half inches in its widest circumference.

Five months ago I was called hurriedly to see Margaret J., aged two months. About half an hour previously, while taking some water through her bottle, she pulled off the nipple, and before the mother could seize it from the pharynx, she swallowed it. She vomited freely without success. I gave a favorable prognosis and left the result to nature.

The baby thrived and was, to all appearances, perfectly healthy, with the exception of having whooping cough. Just 5 months from the date of swallowing the nipple, during one of the many paroxysms of coughing and vomiting, the rubber was expelled intact, with the exception of a small portion of the extreme end which was softened. It is much larger than it was originally, and is very hard and flattened.

Reviews.

An Experimental and Clinical Research into Certain Problems Relating to Surgical Operations: An Essay Awarded the Alvarenga Prize for 1901 by the College of Physicians of Philadelphia. By George W. Crile, A. M., M. D., Ph. D. J. B. Lippincott, 1901.

The fact that this work was awarded the Alvarenga Prize by the College of Physicians of Philadelphia is sufficient evidence of its worth. The book is divided into six chapters, the first being an introduction and the second a discussion of the methods of annotation and investigation pursued during the experiments. The third chapter describes the effect of severing and of mechanically irritating the vagi; the fourth relates the author's research into the effect of intravenous infusion of saline solution. The fifth chapter and probably the most generally important, is de-

voted to the physiological action of cocaine and eucaine. The last chapter relates the results of temporary closure of the carotid arteries

This research of Crile's possesses a value which frequently is not attached to experimental research, in that the author has compared his experiments upon the lower animals with conditions often present in man, and closes each chapter of his book with the "Clinical Application" of what has been said. Each experiment is carefully discussed, the details being given in each case.

Probably Crile's best work has been done in the field of local anesthesia and shock, and by his experiments in these directions he has added materially to the art of surgery. No surgeon practising or interested in local anesthesia should fail to read what Crile has to say about the use of cocaine and eucaine. It seems to us that such investigations as have been carried on by Crile from which can be deduced certain facts which will further the advance of practical surgery are much needed and much appreciated by the profession. [J. H. G.]

The Mental Functions of the Brain, an Investigation into Their Localization and Their Manifestation in Health and Disease. By Bernard Hollander, M. D., M. R. C. S., L. R. C. P., (London). G. P. Putnam's Sons. New York and London. 1901.

We have in this book an attempt at a revival of Gall. The author claims that his localizations confirm those made a century ago by that founder of phrenology, and that Gall's "marvellous results" are presented for the first time in this book. He charges that the scientists have neglected Gall, and that not one of them has written anything that would indicate that he has examined Gall's chief work. And yet Dr. Hollander's book is not a mere treatise on "bumpology." The author has based his work on an examination of more than eight hundred cases, which he has collected from the literature. Such extraordinary industry deserves the tribute of praise, and has given to his work the merit of presenting the appearance at least of great erudition and of a genuine scientific structure.

In spite of this fact it is somewhat difficult for us to take Dr. Hollander's book seriously. The mere fact that he has accepted Gall's conclusions, and used them as a foundation upon which to erect a great fabric into which he has built a vast conglomeration of the observations of modern neuropathologists, may well make us pause in our admiration of his stupendous work. We will frankly confess that we were not prepared for such a propaganda, and had no idea that the present state of neurology warranted it. An inspection of Dr. Hollander's book has not convinced us of its scientific value. It proceeds from too much of an *a priori* startingpoint and does not present the evidence of strict scientific criticism. Its material is not always susceptible of the logical processes to which it has been subjected.

This, we are well aware, is speaking in very general terms, but a detailed review of eight hundred cases is impossible for us here to accomplish. We are merely expressing surprise and some incredulity at the thought that Dr. Hollander should have been able to gather a hidden meaning from these pathological records, which few, if any, acute observers had suspected them to contain. We are satisfied that much of his work will have to be done over again by more unbiassed critics. As a mere receptacle of facts the book is noteworthy, and will doubtless be useful. [J. H. L.]

Leptothryx Infection in Herpes Zoster.—Follet and Sacquépée have reported a most interesting bacteriological finding in a case of herpes zoster found in a woman of 38. Pain disappeared after an epidural injection of 3 cg. of cocaine. Recovery followed quickly. Examination of the cerebrospinal fluid showed it to be normal. Investigations upon the seropurulent fluid removed from the vesicles demonstrated the presence of leptothryx, the evident bacteriological cause of the condition. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, June 19, 1902).

[M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Berks County Medical Society.—At the July meeting, Dr. F. W. Frankhauser read a long paper on temperature in typhoid fever. He condemned the use of drugs for reducing the temperature, though quinine may be given in large doses. The coal-tar derivatives are dangerous. The various baths in the treatment of typhoid fever were described. He especially advocated cold air for reducing the temperature. To give cold air baths the patient is placed in a cold room and the windows are opened wide whenever the temperature rises to 102-2/5°. He reports no accidents upon this treatment. The temperature does not rise above 103°, and the patients enjoy the treatment. ;

\$29,000 Awarded Dr. Browning.—In the suit brought by Dr. W. G. Browning, of Philadelphia, against the estate of the late C. L. Magee, of Pittsburg, Judge Over has awarded the physician \$29,239.25, instead of the \$317,000 for which he sued. It is said that Dr. Browning will appeal.

The Health of Philadelphia.—Statistics for the week ending July 19 show a marked decrease in the number of deaths, from the previous week. There was also a decrease in the number of cases of contagious diseases reported, with one exception, typhoid fever, of which disease 63 cases, with 10 deaths were reported, while but 46 cases with 5 deaths were noted the week before. Diphtheria, scarlet fever and smallpox all show a decrease.

Municipal Hospital, Columbia, Pa.—Mrs. J. E. Thropp has given \$1000 for equipping the operating room of the Municipal Hospital at Columbia, in memory of her father, the late Thomas A. Scott.

SOUTHERN STATES.

Columbian University, Washington, D. C.—A number of changes have been made in the faculty of the University, among which may be noted the appointments of Dr. Walter Reed, U. S. A., as professor of general pathology, Dr. Sterling Ruffin as professor of the practice of medicine, Dr. Thomas Claytor as professor of materia medica and therapeutics Drs. H. B. Deale and H. W. Hawkes as professors of clinical medicine, and Dr. James Carroll as associate professor of bacteriology and pathology.

Smallpox in Delaware.—During the past week several new cases of smallpox have been discovered in Wilmington, Dover and Harrington. While but few cases have been found in the 2 places last mentioned, 4 cases were reported in Wilmington, July 9.

The New Surgeon-General, U. S. A.—It is rumored that Surgeon-General Forwood will ask to be retired even before reaching the age limit, as his term will be so brief that he does not care to inaugurate any special or new policy. It has been announced that Colonel Robert M. O'Reilly has been designated to succeed Surgeon-General Forwood. Colonel O'Reilly was graduated from the University of Pennsylvania Medical School in 1863. In 1867 he became assistant surgeon, since which time he has served mainly in the West. He only recently became colonel and will now be advanced over 5 senior officers, if he is appointed Surgeon-General. He will probably remain Surgeon-General until 1909, when he reaches the age for retirement. Some opposition to the confirmation of his appointment is expected in the Senate.

Fire in an Insane Asylum.—Fire destroyed the 3 upper floors of the south wing of the Montevue Hospital for the Insane, 2 miles west of Frederick, Md., July 14. The loss is estimated at \$10,000. Two hundred and fifty-two male insane patients were safely removed with considerable difficulty. Two of the inmates escaped, but were soon recaptured. The clothing of about 50 of the inmates was lost. No one was injured, though the fire lasted 3 hours.

Measles at Old Point Comfort.—An epidemic of measles has broken out on the U. S. training ship *Lancaster*, lying off Old Point Comfort. Three new cases were reported July 15, when the vessel was quarantined. It was expected that the *Lancaster*, with her 300 apprentices, would sail for Tompkinsville, July 16, but the date of sailing has now been indefinitely postponed.

Insanity is Increasing.—A study of statistics in the District of Columbia and Maryland shows a marked increase in insanity during the past year. In the hospital for the insane in the District of Columbia, 336 persons were admitted during the past year, ending June 30, 1902. In the

year ending June 30, 1901, 283 patients were admitted; in the year before 247; and in the year before that, 217. Bayview Insane Asylum, Maryland, contains 349 patients; the Springfield Asylum has 316, that at Spring Grove 241, and that at Mount Hope 240 patients. All these institutions are overcrowded.

MISCELLANY.

Cholera in the Philippines.—Official reports show cholera is still spreading in the provinces. While Manila averages 57 cases daily, the total report of cholera in the provinces, July 17, showed 14,567 cases with 10,937 deaths. The deaths of 3 Americans from cholera were reported July 18, one in a woman who had only reached Manila 5 days before. A despatch dated July 20 states that the disease has at last begun to decrease. Between May 9 and June 11 32 enlisted men died of cholera. The Health-Board has decided to relax the quarantine regulations which have so far been enforced between cities and provinces. This step has been decided upon because of the failure of the natives to co-operate. The Municipal Health-Board of Manila has decided to remove 40,000 natives from the city to suburban camps. The disease centers will then be cleaned and disinfected. When the heavy rains begin next month, it is expected that cholera will entirely disappear.

Typhus Fever in Mexico.—Investigation by officers of the U. S. P. H. and M.-H. S. of reports of a typhus fever epidemic in the Cananea Mining district, Mexico, show these reports to be false, probably having arisen from rumors spread by discontented miners who had been discharged.

Plague in Turkey.—According to official information it has been declared that the plague had broken out July 1, at Pera, Turkey.

Cholera in China.—Several deaths from cholera have occurred in the Forbidden City, Peking, alarming the Dowager Empress. The epidemic of cholera is steadily spreading inland from the coast. The United States consul at Canton states that it is an absolute impossibility to obtain even an approximate estimate of the mortality of plague in China. The Governor General of the Dutch Indies has ordered all ships from Canton to be quarantined for 10 days from the date of departure from that port. During the week ending June 3 there were reported in Hong Kong 32 cases of cholera, with 31 deaths, 4 of them being Europeans, and 52 cases of plague, with 50 deaths, only one being a European. Official despatches announce the serious spread of cholera in Manchuria, accompanied by great mortality. Out of 643 cases at Inku, 477 died up to July 4. At Kharbin there had been 575 cases and 322 deaths up to July 10.

Cholera in Egypt.—It was officially announced, July 19, that there have been 96 cases of cholera with 60 deaths at Moucha, near Assiout, the capital of Upper Egypt. It is further announced that 107 cases of cholera have occurred at Assiout between July 16 and 19, fully half of them ending fatally.

Cholera in Japan.—Latest reports show 26 cases of cholera with 8 deaths in Saga Ken, on the island of Kyushyu, not far from Nagasaki. As a number of emigrants for the United States come from Kyushyu, all passports of emigrants leaving Yokohama for the United States are being strictly scrutinized and all regulations enforced. The disease appeared in Tokio July 21.

Hospitals in the United States.—There are about 2,500 hospitals and asylums in the United States. These give employment to 65,000 people and pay over \$23,000,000 in salaries. These hospitals have 300,000 beds, are attended by 37,500 physicians and treat over 1,000,000 patients during the year.—*Dietetic and Hygienic Gazette.*

Man's Height and Weight. A careful inquiry into the average height of the different nations has shown the English professional classes to be the tallest adult males, attaining the high average of 5 feet 9.14 inches. Next on the list come the males of the United States, a minute fraction behind the Englishmen. Thus, the English and American nations are approximately of the same height. Most European nations average 5 feet 6 inches for the adult male, while Australians, Spanish and Portuguese fall below this.

Obituary.—Dr. William R. Hartley, at Atlantic City, N. J., July 15, aged 60 years.—Dr. Charles D. Martin, at Allentown, Pa., July 15, aged 55 years.—Dr. Washington Right-

er, at Atlantic City, N. J., July 16, aged 57 years.—Dr. Edward L. Parker, at Brooklyn, N. Y., July 15, aged 26 years.—Dr. C. W. Rinehart, at Hot Springs, Ark., July 16.—Dr. Alembly Jump, at Fruitvale, Cal., July 11, aged 81 years.—Dr. Emmet Enos, at Kankakee, Ill., July 17.—Dr. J. M. Carey, at Groveton, Texas, July 17.—Dr. Frederick B. White, at New York City, July 18, aged 31 years.—Dr. Walter Prescott Smith, at Baltimore, Md., July 18, aged 34 years.—Dr. James E. Dwinelle, at Baltimore, Md., July 18, aged 72 years.—Dr. John T. Winter, at Washington, D. C., June 22, aged 60 years.—Dr. Alexander Mecray, at Maple Shade, N. J., June 26, aged 63 years.—Dr. Robert A. Work, at Bethlehem, Pa., June 17, aged 34 years.—Dr. Charles T. Taliaferro, at Evergreen, Ala., June 20, aged 68 years.—Dr. Carl A. W. Zimmermann, at St. Louis, Mo., June 30, aged 49 years.—Dr. Alden Hitch Steele, at Olympia, Wash., June 30, aged 79 years.—Dr. William J. Ross, at Onaway, Mich., June 27.—Dr. Frederick W. Thum, at Newark, N. J., June 27, aged 37 years.—Dr. Hubert F. Praeger, at Brooklyn, N. Y., June 22, aged 52 years.—Dr. James Quertermous, at Clay City, Ill., July 7, aged 61 years.—Dr. Bernard P. Ryce, at Meriden, Conn., July 5, aged 40 years.—Dr. William M. Simcox, at Pittsburg, Pa., June 30, aged 76 years.—Dr. Edward H. Kinney, at Minneapolis, Minn., June 30.—Dr. Arthur P. Prioleau, at Charleston, S. C., June 21, aged 48 years.—Dr. Jonathan Rhea Gordon at New York City, July 18, aged 31 years.

GREAT BRITAIN, ETC.

The Study and Prevention of Tropical Diseases.—Germany, France and the United States give large sums for the study of tropical diseases, but the British Government has hitherto preferred to leave the provision of the necessary funds to private individuals. The Schools of Tropical Medicine in London and in Liverpool depend entirely on the liberality of individuals, whose patriotic action does not always receive the recognition it deserves. An anti-mosquito campaign is now being carried on in many portions of the globe. The mosquito is known to transmit malarial infection, and efforts are being made to exterminate the anopheles. Mr. Chamberlain has approved the vote of funds by the legislative council of Sierra Leone for the immediate surface drainage of a swampy portion of the Grassfield district, in which Dr. Logan Taylor, of the Liverpool school, has been at work.—*London Chronicle.*

Manchester Royal Infirmary.—After a battle of 12 years, the board of management has recommended that a new hospital be erected on the present site, to provide 452 beds, with accommodation of 230 officers, nurses and attendants. The new hospital is to be built on the pavilion system. It is strange to erect a new hospital, at a value of \$1,000,000, upon a limited tract of ground in the center of the noisy city of Manchester. It would seem much more up-to-date to build the new hospital in the suburbs of the city.

Obituary.—Dr. John Curnow, F. R. C. P., physician to King's College Hospital, died July 5, of pneumonia, in his 57th. year. He was professor of anatomy at King's College, where he had been graduated, until 1896, when he became professor of clinical medicine. He also held a number of other important positions.

CONTINENTAL EUROPE.

A New Deaf and Dumb Asylum.—The municipal government of Wiener-Neustadt, Austria, has appropriated \$80,000 for the erection of a new asylum for the deaf and dumb, to accommodate 100 children.

The International Congress of Gynecology at Rome.—At this congress, which is to be held September 15 to 21, the first address to be delivered will be upon the medical indications for inducing delivery, by Dr. Barton Cooke Hirst, of Philadelphia. Among the other papers to be read is one on the surgical treatment of cancer of the uterus, by Dr. Cullen, of Baltimore.

Says He Has Tuberculosis. Dr. Paul Garnault, the young French physician who inoculated his arm externally with glandular matter from a tuberculous cow, June 17, and again July 15, subcutaneously, with caseous matter from the liver of a cow with tuberculosis, announced July 21, that tubercles had developed. The second inoculation was performed because he feared that the skin tuberculosis from the first application might remain superficial too long.

Professor Virchow's Illness.—Professor Rudolf Virchow, of Berlin, who recently took the cure at Carlsbad, is now recuperating at Schierke in the Hartz Mountains. He is confined to his bed by a recurrence of his illness. This relapse was accompanied by several attacks of weakness. His condition is causing anxiety on account of his advanced age.

German Ophthalmological Society.—The annual meeting will be held at Heidelberg, August 4-6, 1902.

The Preventive Treatment of Rabies.—In the Pasteur Institute, Cracow, Austria, 647 patients were admitted for treatment during 1901. Thirty-eight of these had been bitten in the face and head, 418 in the hands and body, and 191 in the legs. Out of 600 who received treatment, only 2 died (0.33%). At the Pasteur Institute, Vladivostok, Russia, 200 persons were treated without a single death. Dr. Krokiewicz, of Cracow, reports a case of rabies in a young woman 8 months pregnant, who died. Portions of the medulla of the fetus were inoculated into rabbits subdually without producing rabies, thus showing the nontransmissibility of rabies through the placenta.

Prompt Aid for Appendicitis.—Dr. Dieulafoy, at the meeting of the Académie de Médecine, Paris, July 8, spoke in favor of prompt surgical intervention for appendicitis. Examining statistics, which at first sight seemed to militate against his views, he pointed out that many operations for appendicitis, when the acute period was past, were wholly unnecessary, being performed on persons who were already on the way to cure. Surgical treatment should be applied immediately to prevent poisoning of the organism.

University Notes.—**Basel:** Dr. W. His, professor of internal medicine in Dresden, has been appointed professor of internal medicine for the summer course.—**Barcelona:** Dr. Vallejo has been appointed professor of clinical medicine, in the place of the late Dr. Robert.—**Berlin:** Dr. Leopold Landau has been made professor of obstetrics and gynecology.—**Dr. Martin Ficker,** custodian of the Museum of Hygiene of the University has been appointed director of the Hygienic Institute, and Dr. Wolpert has been made first assistant in the Hygienic Institute.—**Dr. Heymann,** professor of laryngology, has been elected corresponding member of the American Laryngological Association.—**Bonn:** Dr. R. Binz, professor of therapeutics, celebrated his 70th. birthday, July 1.—**Breslau:** Dr. Alfred Schaper, professor of anatomy, has been made director of the Anatomical Institute.—**Freiburg:** Dr. Hermann Emminghaus, professor of psychiatry, has been retired. Dr. Hoche, professor of psychiatry and director of the psychiatric clinic in Strassburg, has been appointed to take his place.—**Graz:** Dr. Erwin Payr has been appointed professor of chemistry.—**Heidelberg:** Dr. von Rosthorn, of Prague, has been appointed professor of gynecology in the place of the late Professor Adolph Kehrer.—**Lausanne:** Dr. Rabow, formerly professor of psychiatry, and since 1899 professor of therapeutics, has resigned and moved to Königsberg. In his place, Professor A. Jaquet, of Basel, Drs. Ellinger, of Königsberg, and Berdez, of Lausanne, have been chosen; in the place of Dr. Bugnon, the retiring professor of anatomy, Dr. Roud has been appointed professor of anatomy. Dr. Kasimir Strzyzowski has been appointed professor of physiological chemistry.—**Marseilles:** Dr. Cousin has been appointed professor of surgery, Dr. Delanglade, professor of external pathology, and Dr. Oddo, professor of internal pathology.—**Paris:** Professor Fournier, the well-known specialist in dermatology and syphilography, is soon to retire on completing his 70th. year. It is reported that he will be succeeded, as professor of dermatology, by Dr. Hallopeau.—**Vienna:** Dr. Carl Gussenbauer, professor of surgery, has been appointed rector of the university for the coming year.—**Dr. Ernst Ludwig,** professor of chemistry, has been appointed dean of the university for the coming year.—**Würzburg:** Dr. von Kölliker, professor of histology, embryology and comparative anatomy, has retired. Dr. Stohr has been appointed in his place.

Obituary.—The death is announced of Dr. W. Kiesselbach, professor of otology in the University of Erlangen, aged 63 years.—**Dr. Johann Maizner,** professor of gynecology in Prague, formerly assistant of Semmelweis, died recently in Klausenburg, Hungary, aged 74 years.—The death is also announced of Dr. Förster, formerly professor of ophthalmology in Breslau.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

July 5, 1902. (No. 2166).

1. The History of Edward Jenner, his Life, Works and Writings.
2. The Epidemiology of Smallpox in the Nineteenth Century. ARTHUR NEWSHOLME.
3. A Century of Vaccination: Smallpox Epidemics and Smallpox Mortality Before and Since Vaccination Came into Use. E. J. EDWARDES.
4. On the Administration of the Laws for the Prevention of Epidemic Smallpox.
MRS. GARRETT ANDERSON.
5. Vaccination Problems for Parliament. J. C. McVAIL.
6. The Complications of Vaccination. T. COLCOTT FOX.
7. Glycerinated Calf Lymph. F. R. BLAXALL.
8. Smallpox in Glasgow. J. C. McVAIL.
9. Vaccination with Glycerinated Calf Lymph.
ALBERT E. COPE.
10. Differential Diagnosis Between Variola and Varicella.
W. McCONNELL WANKLYN.

2.—In the epidemiology of smallpox the chief factor in the spread of the disease is personal infection. The disease does not always affect different countries in the same year when similar climatic conditions prevail, as it might be expected to do if the climatic conditions had a predominant influence. There is, however, some further factor than personal infection responsible for the causation of the greater epidemics and pandemics of smallpox, which, for want of a better term, Newsholme designates by the old-fashioned name of "epidemic constitution." By this is meant that at certain irregular intervals smallpox seems to be more infectious than it is at other times with equal opportunities for dissemination. Whether smallpox belongs to the group of diseases that has been shown to become epidemic chiefly in years of deficient rainfall is open to doubt. [J. M. S.]

3. Edwardes, after a study of the effects of vaccination during a century, concludes that revaccination must be made universal and not left optional if we wish to utilize its protective action to the full. The protection that an individual thus acquires is greatly increased if he is surrounded by an equally protected community; hence it is the right and the duty of the State to insist on universal revaccination. Then there will be no need for extensive isolation procedures, for there will be no smallpox epidemics. [J. M. S.]

6.—Fox contributes an article on the complications of vaccination. He speaks of the raspberry sore, an excessive degree of local inflammatory reaction, local supernumerary vesicles, generalized eruption, exanthematic generalized outbursts of true pocks, erythematous, bullous and hemorrhagic eruptions, tetanus, psoriasis, eczema, strophulus, syphilis, tubercle and leprosy. In the production of an excessive degree of local inflammatory reaction, idiosyncrasy and a too free use of the vaccinated arm are sometimes to blame. Impure lymph and secondary infection with pyogenic micro-organisms due to unclean instruments or to contact with dirty dressings or hands also contribute. The generalized eruptions of the erythematous, bullous or hemorrhagic type resemble those that have been noted after the injection of antitoxic serum and physiological saline solution and are such as may be produced by any chemical irritant. It is possible that impure lymph containing staphylococci or streptococci may contaminate the vaccine lesions from the start and produce grave systemic poisoning that may be indicated by generalized rashes or by vesiculopustular eruptions. Such results are, however, usually due to secondary contamination. [J. M. S.]

7.—Blaxall describes the methods employed in the pre-

paration of glycerinated calf lymph by the Local Government Board. [J. M. S.]

8.—McVail has demonstrated that during the Glasgow epidemic of smallpox in 1901 recent revaccination was an absolute protection against attack by smallpox, both throughout the period of the epidemic and the period of recrudescence. In 126 cases smallpox developed within 2 weeks of the vaccination, indicating that the subject was already incubating the disease when the vaccination was done. He believes that the manufacture of vaccine lymph should be carried on under Government supervision. His studies give no support to the view that smallpox selected the most insanitary districts for its field of operation in Glasgow, although the Eastern division of the city, in which the smallpox hospital was situated, had more than its share of smallpox cases. He believes that, if all the inhabitants had been revaccinated once in their lives, there would have been no epidemic. [J. M. S.]

9.—Cope describes the method of vaccinating that has given the best results in his hands. The results with glycerinated calf lymph, he says, are not uniform; but depend upon (1) the character and the age of the lymph, (2) the idiosyncrasy of the patient and (3) the state of the patient in regard to previous vaccination. [J. M. S.]

10.—In the differential diagnosis between varicella and smallpox the history is of no value and Wanklyn advises that the physician make the examination first and take the history afterward. The distinctive features are found in the rash. The rash of varicella appears on the trunk, and the forearms and hands are lightly involved; this is a constant and reliable phenomenon, in the experience of the writer. The shotty feel and umbilication are of little diagnostic use in an obscure case of suspected smallpox. The true distinction between the individual lesions of the 2 diseases lies in the depth in the skin at which the lesion is placed; the lesion of varicella is superficial while the lesion of smallpox is deep. The points for determining the superficiality of the lesions are: (1) The thinness of the covering pellicle, (2) its oval or irregular outline, the long axis is parallel to the creases of the skin and, (3) its situation in the folds of the axilla and flank, the groins and the lumbar regions. If the scabs only are present when the patient is first seen, the diagnosis of smallpox is rendered more certain if they are evenly circular and disc-like and if the brown inspissated remains of pustules are found on the thick skin of the hands. [J. M. S.]

LANCET.

July 5, 1902.

1. An Address on Patent Foods. ROBERT HUTCHINSON.
2. Five Clinical Lectures on the Causation and Prevention of Phthisis. (Lecture I). BYRON BRAMWELL.
3. On Some New Procedures for the Examination of the Blood and of Bacterial Cultures. A. E. WRIGHT.
4. Cases of Gastrotomy for Recent Gastric Ulcer. C. W. MANSELL MOULLIN.
5. A Few Observations on the Bloodpressure in Mental Disease, with a Note on the Treatment of Melancholia. H. de M. ALEXANDER.
6. Vermiform Appendix Containing Fecal Concretion on a Black Pin, Removed After Death from a Child Aged Six Years; Illness Two Days and no Medical Man Consulted. JOHN D. MALCOLM.
7. Difficulties in the Diagnosis of Smallpox. W. T. FREEMAN.
8. The Statistics of Cremation. HENRY THOMPSON.

1.—Hutchinson delivered an address on patent foods, before the South-West London Medical Society, at Bolingbroke Hospital, Wandsworth Common, on February 12, 1902. He classifies patent foods into 5 great groups as follows:

I. Foods intended to supply special nutritive constituents.

1. Proteid foods.

(a) derived from meat—meat powders: Leube-Rosenthal's Solution.

(b) derived from milk—e. g., nutrose, eucasin, protene, plasmon.

(c) derived from vegetable sources—e. g., aleurone.

(d) derived from mixed sources—e. g., tropon.

2. Carbohydrate foods—e. g., malt extracts.

3. Fatty foods.

(a) Cod-liver oil emulsion.

(b) Petroleum emulsion.

(c) Pancreatic emulsion.

4. Mixed fatty and carbohydrate foods—e. g., virol, virvis.

II. Beef Extracts.

III. Beef Juices.

IV. Peptonized Foods.

(a) Solid—e. g., somatose, peptonoids, etc.

(b) Liquid—e. g., panopeptone, wine of peptone etc.

V. Infant's Foods.

He then considers at some length the composition and advantages of most of the preparations of the market following the classification given. [F. J. K.]

2.—The first lecture on the causation and prevention of phthisis, by Bramwell, deals with the nature and etiology of phthisis, and the channels through which the infection is introduced into the human subject. Phthisis may be primary or secondary. In the majority of instances it is primary. The tubercle bacilli is given off from those individuals suffering from tuberculosis, either in the sputum, in the feces, in the urine or in the discharges of the tuberculous lesions (diseased bones, joints, skin ulcerations, etc.). Tuberculous diseases may be conveyed from one person to another by means of secretions, excretions and discharges, which contain the bacilli or its spores. The dried discharges are inhaled in the form of dust with the inspired air. Susceptible persons, when exposed to an atmosphere which is laden with dust containing bacilli, run a great risk of contracting the disease. He also writes at some length on the danger of contracting tuberculosis by milk and meat containing tubercle bacilli. The channels through which the bacilli or their spores are introduced into the human body are either (1) with the inspired air; (2) with food or drink; or (3) by means of inoculation. He refers to Professor Koch's views regarding bovine and human tuberculosis. [F. J. K.]

3.—Wright contributes an article on some new procedures for the examination of the blood and of bacterial cultures. He suggests the possibility of dispensing with the standard pipettes and the micrometrical rulings of the hemocytometer; he also writes on a method of determining under the microscope the number of micro-organisms contained in a bacterial culture; on a simple procedure for obtaining coagulation tubes of standard caliber; also as introductory to this last, a note on the practical importance of the information obtained from the coagulometer. [F. J. K.]

4.—Moullin deals with the question of gastrotomy for recent gastric ulcer, reporting 3 late cases. In addition to these cases Moullin published in the *Lancet* for October 20, 1900, 3 other cases, in which he operated for hematemesis, and all of which recovered. Of the present cases 2 were operated upon for hematemesis, one of which recovered and the other, who was very much exhausted at the time of operation, died. Three of these 5 cases had lost so much blood that transfusion was necessary at the time of operation. Attention is called to the mistake of comparing the mortality-rate of all cases of hematemesis which are not operated upon with that of those severe cases in which operation is performed. In the first class are included a large number of slight cases in which no surgical treatment would be thought of. The only way to compare the results of the 2 treatments is to take those cases in which surgical treatment is recommended and declined and compare the mortality of these with that of those in which the operation is accepted. A study of 246 cases of hematemesis from gastric ulcer occurring in the London Hospital in the five years from '95 to '99, inclusive, shows that the condition is much more apt to be fatal in patients over 30 years. In women under 30 hematemesis rarely requires surgical treatment. The author considers operation indicated when there is a single severe hemorrhage occurring in a case of gastric ulcer; when there are two separate attacks of severe hematemesis at a short interval; and when there are frequent small hemorrhages which render the patient more and more anemic. Any case of gastric ulcer, in which medical treatment is accomplishing nothing and in which vomiting obstinately persists and the pa-

tient is losing ground, should also be submitted to operation. [J. H. G.]

5.—Alexander contributes an article on the **bloodpressure in mental disease**. In simple melancholia he has found a marked elevation in the bloodpressure, whereas it is invariably high in acute passive melancholia. In acute demonstrative melancholia he has noted an elevation of bloodpressure and, in the majority of cases, an accompanying leukocytosis, while in chronic melancholia there was generally a low pressure. A low bloodpressure has been recorded in mania and in general paralysis. In pure senile mania and melancholia, the readings obtained corresponded to those registered in the same affections occurring in an adolescent or in an adult. In that variety of senile insanity which is associated with dementia, which is characterized clinically by constant fidgety restlessness, an elevation was observed. [F. J. K.]

6.—Malcolm reports an interesting case of a child who died suddenly from **appendicitis** without medical care. The post mortem revealed perforation of the appendix with a large concretion, the nucleus of which was a pin. [J. H. G.]

7.—Freeman points out **difficulties in the diagnosis of smallpox**. He gives an account of the history of a case, that of a boy, 10 years old, who, on March 15, 1902, was covered with a rash of a scarlatiniform type. Subsequently the skin peeled, but albuminuria did not develop. The case was considered one of scarlet fever. Between March 25 and 27 he was very ill; his temperature was high and node-like swellings appeared over the forehead and on the front of the tibia. Afterwards a profuse bullous rash developed. The vesicles or bullæ varied in size from that of a pin-head to nearly that of a shilling. They were all hemorrhagic and some of them were umbilicated. A papular stage preceded the vesicular stage. On April 7 the patient was much improved and the vesicles and bullæ were dried up into hemorrhagic scabs. The author thinks that the condition in this patient was a developmental erythema—an erythema of nodose type passing on to a stage of a bullous type of rheumatic purpura. The boy was successfully vaccinated after this illness. [F. J. K.]

MEDICAL RECORD.

July 19, 1902.

1. Mosquito Work in Havana. W. C. GORGAS.
2. Appendicitis as Viewed in the Early Part of the Last Century, with a Few Notes on The Essay of Mélier. THOMAS H. MANLEY.
3. Ear Complications of Measles and their Treatment. HERMAN JARECKY.
4. Some Popular Objections to Vaccination. WILLIAM R. FISHER.
5. The Hygiene of Pregnancy. FREDERICK W. SMITH.

1.—Gorgas describes the manner in which the sanitary department of Havana accomplished the ridding of the city of **yellow fever** and lessening the cases of malaria. It was the aim of the department to destroy all the stegomyia mosquitoes possible, thus leaving as few as possible to transmit the fever from patient to patient. The further effort was made to prevent the mosquitoes that escaped destruction from biting yellow fever patients and finally to kill all the mosquitoes that had become infected. The screening of patients as well as of all water receptacles was insisted upon, and oil was poured on all such drains, privies, etc., that could not be otherwise protected. A house-to-house inspection and crusade against mosquitoes was made, and infected houses thoroughly disinfected by burning with **pyrethrum powder** at the rate of one pound to every thousand cubic feet of air space. It was necessary to clean all the outlying irrigation ditches of grass and all obstructions to prevent the breeding of the mosquitoes. Gorgas believes that the remarkable decrease in the death-rate from yellow fever and malaria in Havana has been directly due to this mosquito work. [T. L. C.]

2.—Manley presents an historical review of **appendicitis of the early part of the last century** and gives a résumé of the essay of Mélier which appeared in 1827. Long before this time extended study had been made of the structure and diseases of the appendix. Robiquet had determined

the chemical composition of **appendicular calculi** and showed the structural similarity to other conditions.

[T. L. C.]

3.—In discussing the **ear complications of measles** Jarrecky details his method of treating such cases. He emphasizes the importance of having the nose and throat looked after in all children ill of measles, and advises an early incision of the drum membrane if needed or if in doubt. [T. L. C.]

4.—Fisher mentions some **popular objections to vaccination** and proposes compulsory vaccination as a solution of the whole difficulty. It would put an end to all opposition by putting an end to smallpox. This cannot be accomplished without the support of public opinion and it may be necessary that a National Board of Health be created to do this necessary work. [T. L. C.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 17, 1902.

1. The Report of Two Cases of Typhoid Spine. G. M. MOOREHOUSE.
2. Empyema in Children. F. J. COTTON.
3. The Influence of Alcohol upon Infection and its Use in the Treatment of Acute Infectious Diseases. S. J. MELTZER.
4. A Case of Subphrenic Abscess on the Left Side Following Appendectomy. E. A. DARLING.

1.—Moorehouse, who reports in full the case-histories of 2 patients with **typhoid spine**, has collected 21 other cases. In most cases bone disease and pachymeningitis were both present. The prognosis is excellent, no deaths having been recorded. The condition may last a long time, however. He advises rest in bed, a spinal jacket, good food, tonics and potassium iodide in the treatment.

[M. O.]

2.—Cotton finds that **empyema in children** usually follows lobar pneumonia, the infecting organism being the pneumococcus. Spontaneous recovery is rare, even with tapping. Operation should be immediately performed, superiosteal resection of an inch of the eighth or ninth rib in the posterior axillary line being best, with tube drainage. Irrigation at or after operation is not usually advisable. When failure to heal seems to depend on failure of the lung to re-expand, the valve or suction apparatus is indicated. This is especially of value in chronic cases. The mortality is about one in 7. Chronic empyema is rare in children, the closure of the cavity depending mainly on nutrition and adequate drainage. Recurrence may appear at any time, even years after apparent healing. The chest deformity is temporary, yielding to treatment. Long continued discharge is not infrequently followed by scoliosis, often permanent and severe. [M. O.]

3.—All experiments with alcohol upon animals serve as a warning against giving too large doses of alcohol to human beings. Meltzer believes that alcohol, in not too large doses, does not affect bloodpressure, but affects some change in the distribution of the blood, which may prove of great importance to a patient with an infectious disease, especially pneumonia or typhoid fever. Alcohol also protects the patient against excitation by stimulating the normal inhibitory mechanism of the body. Meltzer says that, while alcohol in health is often a curse, in disease it is mostly a blessing. [M. O.]

4.—Darling reports a case of **subphrenic abscess on the left side**, in a young woman of 21, appearing a month after recovery from appendectomy. Two operations were necessary for each condition. She eventually recovered. This case is interesting because, while the primary infection was on the right side, the secondary infection was on the left. [M. O.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 19, 1902.

1. The Treatment of Yellow Fever. JAMES CARROLL.
2. Ulcer of the Bladder. LOUIS E. SCHMIDT.
3. Muscular Insufficiency of the Mitral Valve. (Concluded). CHARLES SPENCER WILLIAMSON.
4. The So-Called "Spotted Fever" of the Rocky Mountains. LOUIS B. WILSON and WM. M. CHOWNING.

5. Some Notes Concerning Preparation of Teeth for Microscopical Study. MARTHA ANDERSON.

1.—Carroll contributes an article on the treatment of yellow fever. He reviews the older methods, first mentioning the treatment recommended by Warren in 1734, and then discusses briefly the conspicuous pathological lesions that are present in individuals suffering from yellow fever. He points out that the preliminary indication in the treatment of yellow fever is to remove the toxin from the circulation. This is best and most effectively done through the normal channels, with the urinary secretion, aided by free action of the skin and moderate depletion of the digestive tract. The patient's strength must be sustained by approximate stimulants during the illness. [F. J. K.]

2.—The subject of ulcer of the bladder is discussed at some length by Schmidt. After describing the various kinds of ulcers, their cause, pathology and diagnosis, their treatment is presented. Appended to the article are brief histories of five cases which the author has treated. Irrigation has proven very ineffective treatment for vesical ulcers. The author recommends curettage and the application of the thermocautery. [J. H. G.]

3.—Williamson writes on muscular insufficiency of the mitral valve. He defines muscular insufficiency as a condition in which the valves are normal and in which the mitral ring is not of such large size that the curtains do not suffice to close it, but in which the valve is incompetent because of imperfect functioning of the muscular apparatus of the valve. Muscular insufficiency may exist for a long time without producing venous stasis, if the right ventricle be of approximate normal strength. He reviews the historical data bearing upon this subject, the anatomical and physiological data, the morbid anatomy and finally discusses the clinical history and the diagnosis of the acute and chronic forms of muscular insufficiency of the mitral valve. [F. J. K.]

4.—Wilson and Chowning contribute a preliminary report to the Montana State Board of Health on the so-called "spotted fever" of the Rocky Mountains. They state that this disease has been recognized as a distinct clinical entity for 15 to 20 years. The disease is prevalent in Idaho and in Montana, and occurs in the spring of the year. Age, sex and general health of the patient appear to have no part in determining susceptibility. Mild and severe types of the disease exist and in all cases a peculiar eruption occurs. The onset of the disease is marked by malaise, for a short period, which is followed by well-marked rigor. Successive chills occur at irregular intervals with decreasing severity. Aching pains in the bones, muscles and joints are present at the onset. Headache is often severe. The urine contains a small amount of albumin at times and the tongue is thickly coated with a dry, white or brownish fur. After the initial chill the temperature may reach 103° or 104° F. For about a week the temperature ranges from 105° to 107° F., with slight evening exacerbations and morning remissions. The fever declines by lysis. The eruption makes its appearance between the second and fifth days after the chills; first upon the ankles, wrists, on the back and then extends over the entire body, the abdomen being involved last. The eruption consists of rose colored spots, circular in outline, varying in size from 2 to 3 millimeters in diameter, which disappear on pressure and reappear when pressure is released. A petechial eruption is noticed in some cases and slight jaundice is commonly present. The skin desquamates about the third week. In severe cases a low muttering delirium is present, while in

the milder forms of the disease headache is the only nervous symptom. The pulse is full and strong at the onset and gradually becomes more rapid and weaker as the disease progresses. In 5 cases the erythrocyte counts were almost normal, and the leukocytes ranged between 12,000 and 13,000 in 4 cases. The hemoglobin in 5 cases was between 50 and 60 percent. The authors claim that freshly drawn blood, when examined with a one-twelfth oil immersion objective, shows parasites sparingly in the red blood-cells. During the second week of the disease nausea and vomiting develop and in severe cases continue to the end. Constipation is a rule and tympanites is sometimes present. In 5 cases examined, the authors found albumin in the urine of each, as well as granular and bloodcasts. The respiratory rate is increased and may be labored. They point out that the prognosis, as a rule, is very favorable if the patient is transferred to a lower altitude and properly cared for. The authors have made 6 autopsies, and in all small wounds of the skin, due to tick bites, were found, and they also observed hypostatic congestion of the lungs and enlargement of the spleen. The intestines were normal and one or both kidneys showed small subcapsular hemorrhages. The meninges of the brain and spinal cord showed slight congestion. The writers have found a micro-organism in the red blood-cells, which was found in small numbers in the circulating blood, and in great numbers in the congested capillaries and tissues removed at autopsy. In the tissues, within the capillaries, from one to 5 per cent. of the bloodcells contained parasites. This was observed in the lungs, spleen, liver and kidneys. They pointed out that there is evidence supporting the view that the disease may be transferred from the sick to the well, through the contaminated ticks.

[F. J. K.]

5.—Martha Anderson contributes some notes concerning the preparation of teeth for microscopical study. [F. J. K.]

AMERICAN MEDICINE.

July 19, 1902.

1. The Composition of the Tubercle Bacilli Derived from Various Animals. A. deSCHWEINITZ and M. DORSET.
2. "Surra" or Nagana; a Report of an Acute, Fatal, Epidemic Disease Affecting Horses and Other Animals. JOSEPH J. CURRY.
3. Ankylostomiasis in an Individual Presenting all the Typical Symptoms of Pellagra. H. F. HARRIS.
4. Ankylostomiasis in Florida and Cuba; the New Species *Uncinaria Americana*. JOHN GUITERAS.
5. A Case of Severe Anemia Caused by the *Uncinaria Duodenalis*. A. B. HERRICK.
6. Notes on Gastric Acidity: Free HCl. A. L. BENEDICT.
7. Surgical Observations in Berlin. NICHOLAS SENN.
8. On Some Prevalent Obstacles to Professional Unity. W. W. VINNEDGE.

1.—DeSchweinitz and Dorset present the results of their study of the composition of the tubercle bacilli derived from various animals. Their results indicate that as there is a variation in the morphology of tubercle bacilli derived from different sources depending upon their surroundings, so there is a variation in the composition of the bodies of the germs themselves. They show further that there is a greater difference between 2 human germs, (the one attenuated, nonpathogenic for guinea-pigs, the other, almost as pathogenic for guinea-pigs as the bovine germ), than there is between the virulent human and the bovine and horse bacilli. The results so far recorded indicate the relationship between the tubercle bacilli derived from various sources and emphasize the difference between attenuated and virulent human tubercle bacilli. The writers are still engaged in the further study of this subject. [T. L. C.]

2.—Curry, reporting an acute fatal epidemic disease affecting horses and other animals in the Philippine Islands, is unable at present to determine whether surra or nagana is the proper term to apply to the disease described.

There is a strong probability that both terms are correct and that the *surra* of India and *nagana* of Africa are one and the same disease. The parasite found occurs in the blood of the affected animal in varying numbers corresponding generally to the degree of fever. It belongs to the protozoan division of the animal kingdom class of *mastigophora*, and the family of *trypanosomata*. The disease lasts from 3 to 12 weeks, the average duration being 3 to 6 weeks, although death may take place before 3 weeks, or the animal may live 3 or 4 months or more. Curry has discovered that *caribao* are affected by *surra* in the same manner as horses and mules. In order to stamp out the disease Curry recommends as preliminary and immediate measures: (1) The destruction of animal excrement in all stables and corrals, both government and private, throughout the Islands. (2) Careful and systemic inspection of all domestic animals before the rainy season begins and the radical extermination of all affected animals. [T. L. C.]

3.—Harris reports a case of *ankylostomiasis* in a patient presenting all the typical symptoms of pellagra, a disease which is now generally believed to be the result of eating fermented Indian corn. In view of the fact, however, that numerous eggs of the *ankylostomum* were found and that this parasite gives rise to digestive disturbances and profound alterations in the blood, etc., it seems not unlikely that the pathological condition was due to this cause. A feature which points against this conclusion is the strange tendency that the disease exhibited of manifesting itself only in the spring and early summer, and that it has existed for about 14 years. [T. L. C.]

4.—Guiteras presents a clinical note verifying the new species of *ankylostomum* the *uncinaria Americana* of C. W. Stiles. Guiteras' specimens were found in Florida and Cuba. [T. L. C.]

THE UNIVERSITY OF PENNSYLVANIA MEDICAL BULLETIN.

April, 1902.

1. Concerning the Benzoyl Esters of the Urine in Diabetes Mellitus, and the Clinical Significance of an Excess of Glycuronic Acid. D. L. EDSALL.
2. Diagnosis by Means of the Formed Elements of the Blood. C. Y. WHITE.
3. Memoir of the late John Ashhurst, Jr., A. M., M. D., LL. D. RICHARD H. HARTE.
4. Streptococcus Mucosus (Howard) and its Relations to Micrococcus Lanceolatus.
WARFIELD T. LONGCOPE.
5. A Series of Twelve Articles on Medical Men Prominent in the Civil and Military Affairs of Revolutionary Times—VII.—FRANCIS R. PACKARD.

1.—D. L. Edsall discusses the benzoyl esters in the urine in diabetes mellitus and the clinical significance of an excess of glycuronic acid. He states that the readiest method of determining whether an increase in benzoyl esters in diabetes is essentially due to an excess of glycuronic acid is to estimate the benzoyl esters in cases of diabetes in which there is no evidence of the presence of an excess of glycuronic acid; and also in cases in which glycuronic acid is evidently increased and to see whether the increase in the benzoyl esters is correspondingly greater in the latter cases. His experimental work in this direction shows that an excess of benzoyl esters in diabetes is not always due to an excess of glycuronic acid and that, in at least some instances and very possibly in many, the increase in benzoyl esters is due to an increase in other substances which are to a great extent part of the carbohydrate group. It seems probable that the amount of benzoyl esters varies directly with variations in the diet chiefly in the protein food. Discussing the clinical significance of an ex-

cess of glycuronic acid that there are evidences of the presence of intoxication and of the efforts of the organism to overcome this intoxication, and the demonstrations of large amounts of glycuronic compounds in the urine is a method which may be successfully used clinically. In this connection he recalls the fact that he has obtained a marked orcin reaction for glycuronic acid in a number of cases of hysteria, neurasthenia and various neuroses when all evidences of gastro-intestinal disturbances were absent. He does not believe that the presence of the glycuronic compounds will enable us to anticipate the development of diabetes. [T. L. C.]

2.—C. Y. White presents a paper on diagnosis by means of the formed elements of the blood. He states that he knows of no disease that can be diagnosed absolutely by means of the formed elements of the blood, even in malaria the diagnosis depends on the finding of the parasite which infects the erythrocyte. The examination of the blood is an essential and valuable part of a thorough examination of a patient. The blood analysis should be a thorough one and the formed elements of the blood should be studied from their morphological standpoint as well as from the number of corpuscles per cm. The blood picture in progressive pernicious anemia, carcinoma, chlorosis and the secondary anemias is given, as well as the changes which are found in the blood due to the action of toxic substances or of drugs in toxic doses. Having a complete analysis of the blood, this complete analysis should be considered only with the results with the complete clinical findings, the history of the case, the duration of the malady and the presence of possible complications. A careful consideration of the hourly study of the leukocytes in typhoid fever to endeavor to foretell a perforation does not seem to be warranted, in White's opinion, by our present knowledge of the reactions of the leukocytes during the course of this disease, to treatment and to other complications. [T. L. C.]

3.—R. H. Harte contributes a memoir of the late John Ashhurst, Jr., in which the sterling qualities of the lamented surgeon are affectionately commemorated. He concludes with the words: "To know John Ashhurst was to respect him; to secure the privilege of his friendship was to love and revere him with the love and reverence seldom given to mortals to obtain." [T. L. C.]

4.—W. T. Longcope presents a study of the *streptococcus mucosus* (Howard) and its relation to *micrococcus lanceolatus*. He concludes that a close similarity undoubtedly exists between these organisms. The biological characters appear almost identical. Capsulation and low virulence are marked features of both bacteria and the only tangible difference seems to be the character of lesions in animals; and perhaps even these are differences more of grade than of pathological processes. Under these circumstances he suggests the possibility of an organism which he obtained from a pneumonic lung representing a transition stage between the typical *micrococcus lanceolatus* and *streptococcus mucosus*. In this event it would serve, perhaps, to bring Howard's group of capsulated streptococci under the varieties of *micrococcus lanceolatus*. The latter organism, he concludes, admits of a somewhat wide variations of growth from the common type. These variations may occur as such in a certain number of pathological lesions. They cannot be considered as definite species, but should be looked upon as transient variation from the fixed type, their altered characters probably depending upon the peculiar conditions under which they develop. [T. L. C.]

5.—F. R. Packard continues his series of articles on medical men prominent in the civil and military affairs of Revolutionary times with sketches of Dr. Hugh Mercer, Physician and Brigadier-General, and Dr. John Beaty, Commissary-General and Member of Congress. [T. L. C.]

ARCHIVES OF PEDIATRICS.

March, 1902. (Vol. XIX, No. 3.)

1. A Case of Congenital Heart Disease.

EDWIN E. GRAHAM.

2. Monster Per Defectum. A. C. COTTON.

3. Pulmonary Gangrene. FRANCIS HUBER.

4. Pulmonary Gangrene in an Infant.

WALTER LESTER CARR.

5. A Case of Very Persistent Laryngeal Stenosis.

J. P. CROZER GRIFFITH.

6. A Case of Congenital Hepatic Cirrhosis with Obliteration of the Bile Ducts. MARTHA WOLLSTEIN.

1.—Graham reports the case of a child, aged one year, who was born naturally, and appeared well up to the age of 6 months. It then began to have attacks that lasted 15 to 20 minutes, in which it would become cyanosed and dyspneic. It would appear weak and depressed for several hours after the attack. These attacks appeared irregularly from 2 or 3 daily to one in 2 weeks. Early in November the attacks became much longer, and the child rallied poorly after them. The heart's action was rapid, and an occasional irregularity in the pulse was observed; but no cardiac murmur was detected. Respiration was 66; temperature, 101°; pulse, 166. The autopsy showed a beginning meningitis at the convexity, but the chief interest was in the heart which had a deficient interventricular septum, a small opening at the foramen ovale, pulmonary stenosis and a malposition in the origin of the aorta. The arrest of development in the case here reported probably occurred between the eighth and the twelfth weeks of fetal life. At this period the septa between the auricles and the ventricles have been largely formed, and the development of the pulmonary artery and the aorta well advanced. The smooth edges of the opening, free from any thickening or deposits of fibrin, which were demonstrated in the case reported, are typical of congenital heart disease. A deviation of the interventricular septum is often found in those cases in which the septum is deficient, with consequent change in the position of origin of the pulmonary artery and aorta. In the heart reported, the aorta arose in part from the right ventricle. [J. M. S.]

2.—See Philadelphia Medical Journal, Vol. VII, No. 23, p. 1073.

3.—During the past 2 years Huber has seen 6 fatal cases of gangrene of the lung. In one, the patient was a boy of 7 years, the physical signs led to the conclusion that both sides were implicated. Death finally occurred, but no autopsy was permitted. In the second case, the patient was 3 years of age. He was seen at irregular intervals. There was a large cavity on the right side, and, though the breath was extremely fetid, the amount of trouble on the left side was considered to be of such a grave nature that operation was not thought advisable. The patient died. The third patient was a child, 4 years of age. Considerable improvement took place under the use of guaiacol and tonics. The family were opposed to operation, and subsequently it was learned that the child had died rather suddenly and unexpectedly. There was no autopsy. The fourth patient was a boy, 5 years of age, who presented a history of having been squeezed in a gate while eating some peanut candy. As his symptoms developed about this time, the mother suspected that some of the candy had accidentally entered the larynx. There were marked evidences of localized trouble in one lung, and the odor of the breath was somewhat offensive. The general condition of the patient was fair. Under tonic treatment he improved. Three weeks later he coughed up a portion of a peanut. From this time on, there was a rapid disappearance of the pulmonary signs, with complete restoration to health. In a fifth case, though it could not be definitely verified, a small gangrenous focus with abscess was suspected. For a number of months an undersized girl, 5 years of age, with large adenoids, was kept under careful observation. In the beginning a pleuropneumonia of the right lower lobe was diagnosed. The high leukocytosis and the physical signs, 5 weeks after the onset, with but slight displacement of the apex to the left, led to the belief that a localized purulent collection had taken place. Exploratory puncture was performed upon 3 occasions at intervals of a few days. The first attempt revealed a bloody fluid, the second some turbid sanguineous liquid, and the third was negative. Under

careful nursing, iron, guaiacol, creosote, etc., the unpleasant symptoms subsided and a fair condition of health was established. Some cases of empyema, one of which came under the personal observation of the author, may be attributed to this cause. In the instance referred to, the true nature of the disease was not suspected until a large piece of necrotic pulmonary tissue was washed away in irrigating the pleural cavity. A sixth case occurred in a boy, 3 years old, who, for a number of months, had been troubled with paroxysmal cough, which was frequently attended by vomiting. The temperature of the patient was of an irregular type, and he complained of chilliness and sweating, loss of flesh and strength. An exploratory puncture was made with negative results, because pus was suspected. Soon after this, the mother claimed to have observed pus in the sputum, and a decidedly offensive odor to the breath. Physical examination showed numerous areas of consolidation in both lungs. An exploratory puncture on the left side below the angle of the scapula revealed thick pus a short distance below the surface. A section of the ninth rib was removed, but exploratory punctures in various directions failed to reveal the site of the abscess, because a quantity of pus escaped through the nose and mouth during the operation, emptying the abscess cavity. The patient was finally cured. [J. M. S.]

4.—Carr reports a case of pulmonary gangrene in an infant, one year old. At no time during the child's illness was there any fetid odor of the breath, nor fetid expectoration. The sputum was white or whitish yellow, had no green or brown tinge, and was not streaked with blood. The baby, however, raised much more than was usual for one of his age. The character of the temperature curve and the general condition of the child pointed to a septic process, but this could not be definitely determined to be gangrene in addition to a septic bronchopneumonia. It was thought that the symptoms were increased by the disturbed digestion and the intestinal catarrh, which persisted during almost the whole period of the pneumonia. At autopsy the left lower lobe was found almost completely solid with red bronchopneumonia, and containing, in its posterior half, a darker, brownish, softened gangrenous area. The upper lobe of the left lung showed a small area of gangrene. There was acute bronchopneumonia occupying about half the right lower lobe, with a gangrenous area about half as large as that in the left lung. The upper lobe showed a bronchopneumonic area in the apex. [J. M. S.]

5.—See Philadelphia Medical Journal, Vol. VII, No. 23, p. 1071.

6.—Wollstein reports a case of a child, 2 months old, who had presented icterus and vomiting since birth. There was no evidence of syphilis. The stools were white and curdy, and for several days before death they contained mucus and blood. The urine was greenish-yellow, acid and without albumin. Petechiæ appeared over the entire body, even in the scalp; and the hands, the feet and the legs became edematous. At the autopsy, the liver was found to be enlarged, hard, coarsely granular and deep olive green in color. The gall-bladder was small, atrophic, empty and imperforate at its neck. The cystic duct was merely a fibrous cord, and the common duct was in the same condition; the hepatic duct was also impervious. The intestinal contents were not yellow, but looked like grumous barley water, evidently due to the admixture of blood from small hemorrhages throughout the stomach and colon. There was some atelectasis in the lungs. Microscopical examination of the liver showed a marked increase in the interlobular connective tissue, which was chiefly of the older, fibrous type; but in places it was markedly cellular. The liver cells were granular for the most part, although some were fatty. The interlobular bile capillaries were distended with greenish-brown pigment granules. The condition was a congenital defect in the bile ducts, whereby these were reduced to impervious cords, causing a complete obstruction to the bile outflow and consequent cirrhosis. An autopsy proved that there was no developmental error in the structure of the liver, and as pressure from a calculus, enlarged glands or new growth could be definitely excluded, the only possible cause for the obstruction must have been an inflammatory condition occurring before birth. [J. M. S.]

ARCHIVES DE MEDECINE DES ENFANTS.

March, 1902. (Volume 5, No. 3.)

5. Primary Infantile Atrophy. LUIGI CONCETTI.
6. Congenital Occlusion of the Posterior Nares.
MAURICE BOULAY.
7. Tracheobronchial Adenopathy. P. HAUSHALTER
and FRUHINSOLTZ.

5.—Secondary infantile atrophy is very common since it follows inanition and gastro-intestinal toxo-infection. It is due to lack both of nourishing food and of absorption, just as in tuberculosis, typhoid, etc. Changes have occurred in the gastro-intestinal mucous membrane before atrophy results. **Primary infantile atrophy**, on the other hand, occurs in those infants who, from some innate defect, are unable to gain sustenance from a food which is wholly proper, both physiologically and hygienically. Digestion, assimilation, or both must be disturbed. In cow's milk and especially sterilized milk, the digestive ferments are absent or very scanty. Some food is passed unchanged while some decomposes, forming irritants and toxins. From their absorption, general gastro-intestinal infection occurs. Later, secondary anatomical changes result from this process. Besides, the assimilating ferments may be absent or less active than normal. This is noted most rapidly in premature or syphilitic infants. Concetti advises clean milk, which should not be sterilized, to which the necessary digestive ferments may be added, thus more nearly approximating human milk. For breast-fed infants the necessary ferments may be given to the mother, thus overcoming dyspeptic symptoms. [M. O.]

6.—While the common cause of nasal obstruction is the presence of adenoids, it may follow a foreign body, deviated septum, polypi, caseous rhinitis, osteoma, malformations, etc. But **congenital obliteration of the posterior nares** is very rare, only 80 cases ever having been reported. Oddly enough, this condition may not cause symptoms until the child is 10 years of age, and patients have been found with it as old as 59. A few cases died at birth, from asphyxia. These children are somewhat asphyxiated during the early months of life, sleeping with the mouth open, snoring, etc. When the condition is only unilateral, no signs are noted. The case-histories of Boulay's patients follow, in girls of 11 and 18 years. He believes that the condition is more frequent than statistics show, since it is probably often overlooked. The diagnosis is not difficult, for there is absolute impermeability. There is much mucus, and rhinoscopy may show the partition closing the nasal fossæ. By feeling with the stylet anteriorly or the index finger posteriorly, the diagnosis is confirmed. There may be anosmia, collapse of the alæ nasi, facial or thoracic deformities, sweating of the face on the occluded side, exophthalmos, etc. Of 65 cases, the occlusion was osseous in 51, partly osseous in 7, and entirely membranous in 7. Of 65 cases, 26 were bilateral; and 29 of the remaining 39 were on the right side. The occlusion may be anterior, marginal or posterior, the first being the most frequent. The pathogeny of the malformation is not clear. In the treatment Boulay divides cases into simple and complex occlusions. In the former, when everything else is normal, the occluding septum must be perforated, the orifice being kept open. The operation may be done under ethyl bromide or cocaine locally. When the occlusion is complex, other deformities accompanying it, a general anesthetic is necessary. The nasal fossa must be opened, the occluding septum perforated and removed, with care not to injure neighboring parts, and, in some cases, the opened fossa will have to be packed with gauze. If possible, this had better be omitted. [M. O.]

7.—Out of 78 autopsies upon children with acute miliary tuberculosis, enlarged tracheobronchial glands existed in 74. As 67 of the children also had tuberculous meningitis, this adenopathy was noted 63 times. The glands had been tuberculous for a long time, especially the right

pretracheobronchial and interbronchial glands, being almost as much affected as the lungs, in many cases. In 44 out of 74 cases, the caseation of the tracheobronchial glands was the most ancient tubercular focus in the body, while in 8 cases the lungs were not at all affected. Many of these children had tubercular parents, and probably became re-infected by constant inhalation of tubercle bacilli. Thus tracheobronchial adenopathy is a very frequent, but not indispensable, cause of acute miliary tuberculosis in children. When tuberculous meningitis occurs, the bacilli are carried in the blood. But whether the bacilli from caseous glands reach the blood through the lymph is by no means proved. More investigations are needed completely to elucidate the occurrence of pulmonary tuberculosis or tuberculous meningitis from tuberculosis of the tracheobronchial glands. Several anatomical diagrams illustrate the article. [M. O.]

JAHRBUCH FUER KINDERHEILKUNDE.

March, 1902. (Vol. 55, No. 3.)

9. The Operative Treatment of Laryngeal and Tracheal Stenosis Following Intubation in Children.
FRIEDRICH PELS-LEUSDEN.
10. The Etiology of Meningitis and the Diagnostic Value of Lumbar Puncture. XAVER LEWKOWICZ.
11. Cancer of the Liver in Childhood.
EUGEN SCHLESINGER.
12. Pemphigus Contagiosus with Measles; Impetigo Contagiosa. CARL LEINER.
13. Erythema Scarlatiniforme Desquamativum Recidivans.
JULIUS KRAMSZTYK.
14. Acute Epidemic Otitis Media in Children.
J. G. REY.

9.—Friedrich Pels-Leusden gives in detail the case-histories of 3 children with diphtheria, upon whom, though first intubated, tracheotomy was done secondarily. In all cases very narrow laryngeal strictures resulted which were **totally resected** under chloroform, the head hanging down. In 2 cases the results were excellent, in the other death occurred suddenly. The technique of Professor König's operation is given in full. [M. O.]

10.—After describing in detail the technique of lumbar puncture, as performed by him, Xaver Lewkowicz gives the results in 7 cases of **epidemic cerebrospinal meningitis**, 3 cases of simple meningitis, 11 cases of tuberculous meningitis and 4 cases of infectious meningitis. When meningococci alone are found, the prognosis is better than when pneumococci or mixed infection exist in the cerebrospinal fluid. The peculiarities and types of the meningococci are fully described. They have even been found in the sputum. In the cases of simple meningitis, pneumococci, streptococci and typhoid bacilli were found. In tuberculous meningitis meningeal infection probably occurs by metastasis. When there is an excess of neutrophilic leukocytes in the fluid, caseous masses probably exist in the meninges. In other tuberculous cases lymphocytes predominated. Other causes of meningitis, noninfectious in character, are toxemia, hydrocephalus, hyperemia or anemia, poisons, etc., in which the cerebrospinal fluid appears to be normal. He lays great stress upon the **value of lumbar puncture in the diagnosis, prognosis and investigation of meningitis**. [M. O.]

11.—Eugen Schlesinger reports a rare case of **cancer of the liver in a boy of 4**, with the detailed autopsy account. The liver had enlarged enormously in 4 months, cachexia, dyspnea and anorexia following. The literature of primary carcinoma in young children is reviewed, but 10 cases being found. Only 11 cases of metastatic cancer of the liver were found, generally secondary to renal cancer. The symptoms of cancer of the liver in children are increase in the size of the liver, enlargement of the spleen, ascites and cachexia. Adenoma is common in primary cancer. Metastases to other organs rarely occur. [M. O.]

12.—Carl Leiner reports 4 cases in children of **measles complicated by so-called pemphigus contagiosus**. An eruption of large vesicles appeared, became pustular and later scaly. There was some fever. The eruption was auto-inoculable and contagious. All the patients recovered. Cultures showed the staphylococcus pyogenes aureus. After

a review of the literature, he concludes that this disease belongs under the *impetigo contagiosa* group, on account of its clinical picture, bacteriological findings and inoculation investigations, since inoculation caused typical *impetigo contagiosa*. [M. O.]

13.—Julius Kramsztyk thoroughly reviews the subject of *erythema scarlatiniforme*, reporting in detail 3 case-histories. Desquamation occurs early and the disease frequently recurs. In 2 other cases a similar condition followed true scarlet fever, and as no recurrence was noted he is not sure that they were cases of *erythema scarlatiniforme* recidivans. It is exceedingly difficult to make the diagnosis at once. Otitis media and nephritis may also complicate this condition. Recurrence is generally mistaken for a second or third attack of scarlet fever. On account of the predominance of general symptoms, he believes that this should be called *pseudoscarlatina recurrens*. [M. O.]

14.—J. G. Rey has found acute epidemic otitis media common in the early years of life. Fifty-seven cases occurred, double in 49 children, making 106 ears affected. At first he believed that they were secondary to influenza, but some developed long after influenza had disappeared. In age the children ranged from 2 months to 8 years. Coryza generally preceded the otitis. Conjunctivitis or angina also existed sometimes, with fever. The disease usually ran a benign course, but in 6 cases bronchopneumonia developed. In one case empyema resulted. The cause of the otitis is generally the pneumococcus, which gains an entrance through the nose. Therefore, prophylactically, the nasal cavities of all children should be kept clean, all catarrhal symptoms needing immediate treatment. His mode of treatment follows in detail. Adenoids should be removed. [M. O.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

February 27, 1902.

1. Renal Colic, Renal Hemorrhage and Nephritis.
JAMES ISRAEL.
2. The Albumin Content of the Urine of Nephritis, under the Influence of Massage. E. EKGREN.
3. The Etiology and Therapy of Pruritis Vulvæ.
L. SELIGMANN.

1.—Israel gives an extensive discussion of the paper which Senator criticized. He insists that incision of the kidney does good, that it does so chiefly through relieving congestion, and that the attacks of colic and of hemorrhage of which he has written are rationally attributable to nephritis. The details of his argument are too extensive to be abstracted. [D. L. E.]

2.—Ekgren reports 3 cases of nephritis in which he carried out massage in order to determine whether the albuminuria was in any way influenced by this procedure. Two of the patients had granular atrophy, and one, acute parenchymatous nephritis. The amount of urine and its specific gravity were little influenced by the massage; but in practically all the observations he noted that the albumin became increased, whether the massage and passive movements were confined to the upper extremities or to the lower extremities and the trunk. The most important conclusion to be drawn from this is that massage, resistance movements and the like, should never be ordered until it is determined whether or not the patient has albuminuria; and it is certainly questionable whether the attempt to aid in overcoming the edema of nephritic cases by means of massage is safe. At any rate, such a treatment should be carried out only with frequent examination of the urine. [D. L. E.]

3.—The chief point of the present paper is the statement that in cases of chronic pruritis vulvæ the author has constantly found a diplococcus, which, in numbers, bore a distinct relation to the activity of the pruritis. It closely resembled the gonococcus, except that it stained by Gram and had decided cultural differences. No animal experiments were made, as they seemed useless in this connection. The author found that a 10 per cent. solution of guaiacolvasogen kills the diplococcus within 5 minutes. For some years he has, with entire success, treated cases of pruritis vulvæ by first healing any excoriations with indifferent applications, then applying 10 per cent. guaiacol-

vasogen—best in the evening, leaving it on over night—and repeating this for several nights. If this is not sufficient he uses a 15 or 20 per cent. solution, although in this concentration the substance is a strong irritant. If the itching returns, 1 or 2 further applications will usually overcome it entirely. This treatment, of course, does not apply to kraurosis vulvæ, in which total extirpation of the affected area is the only real method of treatment. [D. L. E.]

March 6, 1902.

1. The Distribution of Cancer in the German Empire.
WUTZDORFF.
2. Critical Contribution concerning the Question of Glycolysis. E. BENDIX and A. BICKEL.
3. Concerning Gall-Stone Ileus. KAREWSKI.
4. On Stiffening of the Stomach. I. BOAS.

1.—The author directs attention to a number of more or less interesting figures. Since 1879, the increase in the number of cases of carcinoma has been 266 per cent. In the 7 years, from 1892 to 1898, inclusive, the number of deaths per 100,000 had increased from 59.6 to 70.6. These figures speak strongly against the frequently expressed view that the increase is merely an apparent one, and that it is really due to grater care in reporting results, etc. The number of cases of carcinoma had increased far more rapidly than the number of inhabitants, and the increase had been notable in all periods of life, excepting in childhood. There had been a very striking increase in Prussia, a less notable one in Bavaria, and a very marked one in Saxony. It was notable that in some of the provinces there was a very marked increase, while in others this was much less marked. Cancer seems to be increasing in other countries, judging from the statistics at hand. [D. L. E.]

2.—The authors recently criticized Lépine for his latest views concerning glycolysis, and an answer by him appeared in the same journal. The present article is a further criticism of Lépine, which emphasizes the previous statement made, and states that the latter's answer that he used acidified methyl alcohol is not sufficient to demonstrate that he employed a satisfactory method for the determination of the blood-sugar. [D. L. E.]

3.—Will be abstracted when concluded.

4.—Boas directs especial attention to tonic contraction of the fundus of the stomach, which he finds comparatively frequent and often very marked. The process is described as occurring as follows: If one strokes the fundus of the full stomach, one notices that it rises gradually and becomes firm, and that this contraction is at times felt by the patient. The author divides this condition into 3 forms: (1) The mild variety, usually confined to only a portion of the fundus, lasting only a few seconds, not noted by the patient, and, as a rule, not accompanied by the sound of fluids passing through the pylorus; (2) strong contractions, easily felt and seen as ball-like projections, accompanied by the sound of the passage of fluids through the pylorus, readily felt by the patient, and usually slightly painful; (3) extremely strong, palpable and visible contractions, causing the stomach to rise mountain-like above the abdominal level, persisting a long time, more or less painful and accompanied by marked gargouillement. The cause is organic or functional stenosis. Stenosis from spasm of the pylorus was noted in 5 cases. As an example, he reports one instance of marked pylorospasm, in which, at the height of the attacks, it was repeatedly possible to demonstrate a spasmodic contraction of the fundus. The stiffening of the stomach Boas considers as oftentimes the first sign and as an alarm-signal of the presence of slight stenosis of the pylorus, and as extremely important for this reason, particularly in the diagnosis of atony of the stomach or gastric myasthenia. He notes a case, for instance, in which all the symptoms spoke for the presence of gastric or duodenal ulcer, and in which the usual methods of examining the stomach indicated an atony; but, in which, because of the repeated discovery of spasmodic contraction

of the stomach, he diagnosticated a mild stenosis of the pylorus. The importance of the symptom in treatment and particularly in connection with surgical intervention, is at once evident. Relative stenosis of the pylorus, due to organic contraction, will usually lead to operation; spastic pyloric stenosis is not, in Boas's opinion, a surgical affection. [D. L. E.]

March 13, 1902.

1. The Reporting of Cases of Tuberculosis. G. FRAENKEL.
2. Concerning the Tissues and the Causes of Carcinomatous Growths. FEINBERG.
3. Concerning Gall-Stone Ileus. (Continuation). KAREWSKI.
4. A Further Contribution Concerning Tetanus Bacilli in Commercial Gelatine. SCHMIEDICKE.

1.—Fraenkel gives a general discussion of the question of the control of tuberculous cases. He believes that in Germany it is now impossible to require the isolation of tuberculous cases or to insist absolutely upon their being reported, since public opinion has not reached such a point. He refers, however, to the regulations that have been introduced in New York, in particular, and strongly urges the development of greater knowledge concerning the danger of tuberculosis and the spread of teaching concerning the sources and prevention of the disease. He finishes with some statistics concerning tuberculosis in Prussia, which indicate that in 1890 there occurred 281.1 deaths from tuberculosis in every 100,000 inhabitants. There has been a constant reduction of these figures, until in 1899 there were 207.1 [D. L. E.]

2.—Feinberg has made a study of carcinoma for the purpose of determining the presence of parasites in such tumors. He states that by a special method of fixation and staining he has determined that certain vacuoles in the cells may be so differentiated from mere cell inclusions that one can positively state they are individual organisms, without any relation to the normal tissues of the human body. He describes them as having a marked membrane of double contour, which stains intensely with orange G. There is a nuclear body, which takes nuclear stain; this is surrounded by a clear zone, which does not stain. Around this zone, there is a cell-plasma that stains only with plasma stains (orange G). This plasma exhibits radiating lines. These characteristics, the author believes, differentiate these organisms from all cells, nuclei and nuclear figures, due to cell inclusions. He insists upon the importance of using absolutely fresh material and of seeing that the tumor itself does not come in contact with disinfecting fluids. The tumor should be obtained by operation and not by post mortem; and marked pressure should not be used upon the tumor-tissue during the operation. He fixes in Fleming's solution; hardens in a series of alcohols, beginning with 20 per cent. and going up to absolute; and then imbeds in paraffine. He fixes the sections on the slides with glycerine and egg-albumen, clears in hydrogen peroxide, stains with safranin or gentian-violet and orange G. He believes that the discovery of these organisms in doubtful cases makes the diagnosis of carcinoma certain, and considers that they have an etiological relation with the growth. [D. L. E.]

3.—To be abstracted when concluded.

4.—The author merely notes that he also has found tetanus bacilli in commercial gelatine, using the method recommended by Heyes, which consists in adding small portions of gelatine to agar which has been liquefied and cooled down to about 40°, the gelatine being allowed to sink into the depths of the agar tubes. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT. February 11, 1902.

1. Contribution to the Dietetics of Stomach and Intestinal Disease. A. SCHMIDT.
2. Statistical Investigations Upon the Results of Syphilis. M. MATTHES.
3. Contribution to the Knowledge of Pulmonary Tuberculosis in Infancy, with Discussion. A. QURIN.
4. Mast Cells. L. MICHAELIS.
5. Mast Cells and Exudates. A. WOLFF.
6. A Rare Anomaly of the Biliary Passages. H. KEHR.
7. Chloroform Narcosis Without a Mask. E. SCHLECHTENDAHL.
8. The Determination of the Outline of the Heart and Its Significance to the Practical Physician. C. HANDWERCK.
9. The Law of Isodynamics. RUBNER and VOIT.
10. Contusions of the Kidney, or Inflammation of the Kidney? A Contribution to the Knowledge of Subcutaneous Injuries of the Kidney. G. EDLEFSEN.
11. Hugo von Ziemssen. MORITZ.
12. Axel Key. SANTESSON.

1.—Schmidt discusses some interesting questions. In the first place he believes that the chief chemical activity of the stomach is in a chemical division of the food, rendering it more favorable for absorption. Therefore the diet for stomach diseases should be such as contributes chiefly to lightening its work. In regard to the use of raw and smoked beef he has reached a very decided conclusion. He believes that as ordinarily prepared there is entirely too much connective tissue in raw beef; that its only value in any event is the stimulation of secretion; that this stimulation can be obtained through the ordinary extracts, and therefore he would dispense with raw beef altogether in cases of anacidity. In cases of hyperacidity there is no question that an albuminous diet improves the patient's condition. Nevertheless, as the gastric glands are already in a state of increased activity, and as raw meat stimulates still further, it is not indicated in this condition. On the other hand, starchy foods should be employed because, although the hyperacidity inhibits digestion, nevertheless, as the chief function of the stomach is in breaking up bread, meats, etc., this inhibition is not of serious import. Another point is that in cases of hyperacidity the stomach should be allowed to rest for long periods. If the patient suffers from acid pains during this period, he prefers giving them alkalis to food. Therefore, he usually gives a last meal at 6 or 7 o'clock, it is very light in character; and in the morning he allows the patient to take 2 or 3 moderate meals at intervals of 2 hours, say 7, 8 and 11 followed by a restricted midday meal at 2 o'clock. In all cases of hyperacidity the patient should be kept in bed. [J. S.]

2.—Matthes, with the assistance of Martin, Dörffer and Knabe, has made a careful study of the case-histories of the medical clinic at Jena, since the year 1860. Altogether there were 1250 cases of secondary lues, and 300 cases of tertiary lues, that is to say, about 24% of all cases developed tertiary lues. Concerning these patients they were able to obtain definite information of the subsequent history in 706 cases: 568 secondary, and 138 tertiary cases. Of the former 150 had died at the close of the year 1900, and of the latter, 52 cases. The cause of death could be determined in the greater number. It was found that a very large proportion died of pulmonary tuberculosis, that a considerable proportion died of metasymphilitic conditions, paralysis and tabes, but a very small proportion of tertiary syphilis. The proportion of deaths due to other nervous conditions was inconsiderable. The paper is still unfinished. [J. S.]

3.—Qurin reports the case of a child, 5 months old, who, 9 weeks previously, had had slight catarrh of the stomach. Later the pulse and respirations became greatly increased; there was retraction of the lower portion of the thorax, and no dulness on percussion. The patient gradually grew worse; there was consolidation of the right upper lobe, metallic rales appeared and the patient died. At the autopsy the bronchial glands were enlarged and cheesy; there was a cavity in the right lung, and miliary nodules in both lungs. Pulmonary tuberculosis is excessively rare in children under 6 months old. The diagnosis is often difficult and is to be made from the progressive general cachexia, moderate cough, rales in the lungs and moderate

febrile curve. It can only be made certain when tubercle bacilli can be found in the sputum. The sputum can best be obtained in young children by quickly rubbing a stick surrounded with gauze in the back of the throat immediately after coughing. [J. S.]

4.—Michaelis calls attention to the fact that there are 2 forms of mast cells, one in which the granules are rapidly dissolved in water, and one in which they are more resistant. He regards these as possibly branches of the same species. He hardens the tissues in 96% alcohol, cuts the sections with a razor without imbedding, and staining in a saturated solution of thionin in 50% alcohol for 5 minutes, washing in 50% alcohol. The preparation is then dried and imbedded in Canada balsam. By this method mast cells are frequently found in secretions and exudates. [J. S.]

5.—Wolff draws a very clear distinction between plasma cells and mast cells. For demonstrating the latter he uses solutions of thymos or kresol violet in 50% alcohol. Preparations are fixed, stained for 5 minutes and then washed in 50% alcohol. He also calls attention to the importance of using alcoholic solutions in staining. He found the mast cells in the pleural exudate and in the blood in great numbers by this method. There was only a moderate leukocytosis, but in successive preparations the lymphocytes had increased considerably in number. It appears likely, therefore, that probably one form of irritation had produced a chemotactic attraction upon the mast cells and the lymphocytes. [J. S.]

6.—Kehr reports a curious anomaly of the gall-bladder which he found once in 655 operations. The gall-bladder was situated in the left lobe of the liver and sprang from a special left hepatic duct. [J. S.]

7.—Schlechtendahl believes that his method of administering chloroform possesses various advantages. His instrument consists of a metal tube which fits the larynx, and which is inserted into it in practically the same manner as the intubation tube is inserted. A rubber tube is attached to the upper end of this, and by means of it the chloroform is administered. In application the patient is first narcotized by the ordinary method, then intubation is practised and the narcotization continued through the tube. Extubation is accomplished by pulling upon a thread which is attached to the side of the tube. In cases of catarrhal symptoms of the lungs this method is not applicable, because the tube becomes clogged with mucus. [J. S.]

8.—Handwerck, after praising the method of Moritz for determining the size of the heart, discusses some of the surprising results obtained by this method. He found that in some cases, in which the absolute area of dulness was increased to the right, the orthographic investigation failed to show any actual increase in the size in this direction. He assumes that this is due to an alteration in the form of the heart, due to the elastic resistance of the lung, and has noticed a symptom which inclines him to believe that the anteroposterior diameter of the heart is increased. If this theory is true, then we have in the absolute area of dulness, as indicated by percussion, a better indication of the actual increase in the size of the right ventricle than in the orthographic method of Moritz. [J. S.]

9.—Rubner discusses the law of isodynamics which he worked out in 1879 and 1880 under the direction of Professor Voit. As the result of some doubts on Voit's part regarding their accuracy the results were not then published. This explains why Hösslin's views were not original, because they appeared subsequently. Voit contributes an article which practically confirms Rubner's statements. [J. S.]

10.—Edlefsen, in continuation of the discussion of his cases, mentions among the probabilities that anemia indicates a considerable loss of blood. As, however, there was only a slight and transient hematuria, it was possible that this hemorrhage was into the peritoneal tissue, a supposition augmented by the fact that the patient had pain in the lumbar region for some time. It is probable that both kidneys were affected. The considerable quantity of albumin which was subsequently found in the urine is analogous to that which appears after a transient interruption of the renal circulation. It is possible that the excessive quantity of beer that had been drunk by the patient just before the accident may have had something to do with the polyuria and the increased severity of the lesion in the kidneys.

Similar cases are not found in the literature. It is curious that in so few of the cases anasarca has been observed after the injury. The complete disappearance of the albuminuria indicates, of course, that the patient did not have chronic interstitial nephritis. The absence of any infectious disease before the injury seems to exclude parenchymatous conditions. An X-ray examination of the patient showed a shadow in the kidney region which might have been the residuum of an old hemorrhage. [J. S.]

11.—Moritz, who for years has been von Ziemssen's student or associate, contributes an obituary upon his old master, that he delivered before the Medical Union of Munich in von Ziemssen's clinical auditorium. von Ziemssen's family was Swedish, and in the 18th. century it emigrated to Pomerania, where his ancestors held important positions. von Ziemssen himself was born in 1829, and his early manhood was therefore passed in the midst of the stirring scenes of the revolution of 1848. During this time German medicine was at its lowest ebb, and exact investigation was rarely practised in the clinics. In 1850 von Ziemssen commenced his studies under Virchow. From the time of his graduation he was assistant to Haeser and Niemayer, at the same time engaged in scientific pursuits, winning general recognition by his work upon electricity in medicine. In 1870 he published an article upon the cold water treatment of abdominal typhoid. In 1863 he was called to Erlangen, where he remained 11 years, although not less than 8 universities invited him to assume the medical chair. These were Greifswald, Basel, Bern, Dorpat, Jena, Königsberg, Giessen and Breslau. In 1874 he was called to Munich. At this time he founded the *Deutsche Archiv für klinische Medizin*, the most notable publication of its class in the world, and made arrangements for the publication of his "Handbuch," which was the first of its class ever published. Subsequently he issued a handbook of general therapeutics which was many years in advance of the time. In Munich he devoted himself to neurology, diseases of the gastro-intestinal tract, and the physiology and pathology of the heart. He was also deeply interested in tuberculosis. Moritz concludes with a criticism of von Ziemssen as a scientist, as an investigator, an author, a hospital chief and as a physician. In all he was great, but Moritz believes that perhaps his greatest quality was his capacity for organization and as an individual worker. [J. S.]

12.—Axel Key was born in 1832 in Sweden. He commenced his university studies at the age of 16. He was made professor of the Carolina Institute in Stockholm in 1869 at the early age of 28 years. He remained there 35 years, during the latter 11 of which he was rector of the Institute. During this time he accomplished much scientific work, and was particularly active and beloved as a teacher. During the latter years of his life he suffered from carcinoma of the rectum, which in spite of repeated operations gradually increased and ultimately caused his death. He was one of the most important representatives of the present movement in Northern medicine. [J. S.]

REVUE DE MEDECINE.

April 10, 1902. (21me. Année, No. 4.)

1. Heredity of Odor. CH. FERÉ.
2. Clinical and Experimental Studies on the Pressure of Pleural Effusions. L. BARD.
3. A Case of Peritonitis by Propagation (without Perforation) Occurring in the Course of Typhoid Fever of Ambulatory Form. VERON and BUSQUET.
4. Potato Cure in Diabetes Mellitus and Diabetic Complications. A. MOSSE.
5. Two Cases of Malarial Polyneuritis. C. MATHIS.

1.—The secretions and the excretions of man present certain distinguishing odors. Féré calls attention to the odors of the skin. In the infant there is almost no odor to the skin. At puberty, the cutaneous secretions take on a more or less marked odor and this odor becomes accentuated in the adult. In old age the cutaneous secretions diminish and lose their odor. There is a relation between the intensity of the odors and the pigmentation of the skin; the amount of subcutaneous fat and the diet have an influence on the odor; certain regions of the body also present characteristic odors which are agreeable or disagreeable, depending upon the condition of the individual who

smells them. The nervous system has a great influence on the odors of the cutaneous secretions and certain emotions are able to determine the appearance of special odors in certain individuals. Féré reports the case of a man, aged 37 years, who, at the age of puberty, noticed that his secretions and excretions smelled like those of his father. The odor of the head was peculiar not alone to this individual and his father, but also to 2 paternal uncles and their sons. He reports the case of a woman, aged 34 years, who, after an attack of violent emotion produced by the death of her father, had attacks of ophthalmic migraine. She afterwards experienced 2 fainting fits with convulsive movements that she attributed to beginning pregnancy. She was sure she was pregnant because the sweat of her axillæ, genitals and feet had lost their odor, a phenomenon that had always occurred as soon as she became pregnant on 4 former occasions. The mother of the patient stated that in her own 3 pregnancies she had noted the same phenomenon and that another daughter also experienced the change of odor. These are cases of the heredity of odor according to the view of the author.

[J. M. S.]

2.—Bard concludes his study of the pressure of pleural effusions. (1) It is impossible to take the measure of the intrapleural pressure in serous or serofibrinous liquid effusions with sufficient accuracy for clinical purposes. (2) Intrapleural pressure in liquid effusions varies with the height of the column of fluid above the point considered and the superficial pressure existing above the effusion. The pressure of the effusion varies with the portion of the pleural cavity studied and the vertical distance from the point at which the observations are made to the upper level of the effusion. Clinically, it determines the pressure that the fluid exerts on the diaphragm or the mediastinum and upon that portion of the lung more or less deeply immersed in the liquid. The height of the fluid above the point of puncture may be determined by physical signs. It is important to know the superficial pressure and it is difficult to measure it. This pressure affects the function of the parts of the lung that remain healthy. It also influences the effects of the load upon the inferior parts of the thorax, since the pressure really exercised by the effusion is that of its weight increased or diminished by that of the superficial pressure. (3) The measure of the pressure taken with a manometer attached to a cannula plunged into the fluid is not accurate whatever process of attaching the cannula to the manometer is adopted. (4) The cause of error that usually falsifies the measurements of pressure is the presence of bubbles of air included in the column of liquid that connects the effusion with the manometer, a cause of error that cannot be corrected. This explains the irregularities and the anomalies of the figures published by authors who have studied this question. The only remedy is to use apparatus and to employ precautions to prevent this mixture. (5) A second cause of error is due to the variability of intrapleural pressure on account of the respiratory movements, a variability that falsifies the transmission of the pressure out of the chest. This cause of error ought to be considerably reduced by appropriate methods; it always obeys constant laws that allow of the appreciation of the influence of these movements with sufficient approximation. (6) The procedure that furnishes the most exact indications of the liquid pressure within the thorax is the observation of the movement of the pleural fluid in a glass tube, placed vertically parallel to the chest, and attached to a cannula. The patient should be seated and he acts after the fashion of the water in a reservoir. This procedure requires certain precautions that are easy to take, but of which the most minute observation is necessary. It also requires corrections, which it is important to determine by direct experiment. In the first place, it is necessary that the internal diameter of the cannula shall not be sensibly below that of the glass tube in which the level of the fluid stands. On the other hand, the tube should not have a diameter that allows the influence of capillarity to be too much marked. A diameter of 2.5mm., which corresponds almost to the large trocar of Potain's apparatus,

is large enough to meet this double requirement. In the second place, it is necessary to prevent absolutely all mixture of gas and fluid, that is to say, to record no pressure without being sure of the complete absence of air from the tubes. This may be accomplished by refraining from all useless adjusting, by renouncing all aspirating force other than the syphoning exercised by the tube itself and by allowing several drops of fluid to run before taking the first pressure, as much to carry out any air that might have entered on inserting the needle as to assure oneself of its absence. Theoretically, the pressure ought to be read by determining the superior point of the fluid, and taking this level as 0. Practically, it is simpler, easier and more preferable to take the point of puncture as 0, ending by taking account in the appreciation of the results of the height of the effusion above this point. (7) The level of the pressure thus obtained should be submitted to three elements of correction, all of which would diminish the height of the fluid: (a) The error of capillarity, (b) the load and (c) the error of oscillation. (8) Contrary to the classic opinion that liquid effusions present a positive pressure, varying between 10 mm. to 30 mm. of mercury, the application of the procedure described and the preceding rules to a great number of pleural effusions has shown that the superficial pressure of the largest effusion is certainly always negative on inspiration in calm respiration, and that it is also negative in the great majority of cases, if not always, on expiration. (9) Experiments on the rabbit show that it is impossible to obtain a positive fluid intrapleural pressure. Whatever fluid is injected into the pleural cavity, its excess is immediately absorbed, even if the injected substance is oil. In making the injection in an envelope of gold-beaters' skin, which delays absorption, the animal succumbs in a few minutes when the quantity injected is sufficient to produce a positive intrapleural pressure, even if it is as low as 1 cm. of water. Consequently, sudden death in cases of large pleural effusion may be attributed to the sudden establishment of positive intrapleural pressure, by the cessation of the compensatory efforts due to the exhaustion of the accessory muscles of respiration. (10) The mechanical influence of a liquid effusion, contrary to that of a gaseous effusion, is independent of its pressure and entirely subordinate to its volume. The differences in the pathological physiology of these two classes of effusion depend upon the incompressibility of the liquid and the fixed character of its volume opposed to the compressibility of the gas and its elastic force, which is equal in all directions. (11) The attentive study of intrapleural pressure in pleurisy may furnish valuable clinical indications concerning the condition of the elasticity of the lungs, and its degree of extensibility and possibly also as to whether the fluid is free or encysted. These details call for new observations and complementary studies. (12) Puncture should be done with the aid of aspiration by a simple syphon, which is easy in all cases if one takes some simple precautions. The pressure should be taken at different times in the course of the evacuation of the fluid; it is necessary to be sure each time that there are no air bubbles in the column of liquid. Toward the end of the operation it is necessary also to remember that the pressure may be false by the fact that the cannula may impinge on the surface of the lung. This latter condition is indicated by the immobility of the fluid in the glass tube. At the moment of making the puncture it is prudent to place the extremity of the glass tube in a vessel filled with fluid, placed upon the floor near the bed, in order to make sure that the tube shall remain closed and to prevent the entrance of the air in a case of negative pressure. Usually the pressure is sufficient to force the fluid into the rubber tube and to start the syphon by forcing out some bubbles of air from its lowest portion. If the flow of the fluid is not prompt, having the patient cough will start it up soon. Accidents of puncture, consecutive complications and the best therapeutic effects are obtained in making it a rule to stop the operation when the inspiratory pressure is slightly negative; that is to say when the level of the fluid in the tube reaches 1 or 2 cm. below the level of the puncture in calm expiration. The superficial intrapleural pressure may then be estimated as having nearly returned to its physiological point. The regular and methodical use of the syphon, as the author

proposes it, allows only of the evacuation of a useful quantity of fluid, and thus it furnishes the means of practising thoracentesis with much security and with more favorable results than those obtained by aspirating apparatus.

[J. M. S.]

3.—Véron and Busquet report the case of a soldier who complained of dyspeptic symptoms and vomiting for 2 weeks. He also had headache, insomnia, anorexia and pain after eating, but his stools were normal. After having taken part in some military exercises he suddenly felt a violent acute pain in the right side. Serum reaction was positive and a diagnosis of **ambulatory typhoid fever complicated by peritonitis** was made. The patient was operated upon. The parietal peritoneum was found reddened and a little thickened. There was no perforation of the intestine, although several ulcers could be seen through the serous coat of the bowel. The appendix was normal. The peritonitis appeared to have been due to the migration of some micro-organism or some toxic substance through the wall of the bowel from the typhoid ulcers. The patient died 2 days after the operation. At the autopsy no perforation of the intestine could be found. The bacillus typhosus was obtained in pure culture from the peritoneal fluid, the liver and the spleen. [J. M. S.]

4.—Will be abstracted when finished.

5.—Mathis reports 2 cases of **malarial polyneuritis**; one in a Frenchman, aged 40 years, and the other in a negro, aged 28 years. [J. M. S.]

NEUROLOGISCHES CENTRALBLATT.

February 15, 1902.

1. The Fatigue of the Tendon Reflexes and the Diagnostic Significance of this Symptom in Nervous Diseases. W. v. BECHTEREW.

2. The Trigeminal Facial Reflex and the Westphal-Pilz Phenomenon. H. LUKACZ.

3. Further Investigations of Babinski's Reflex.

A. HOMBURGER.

4. Further Communication upon Asthenic Paralysis with the Results of an Autopsy. S. GOLDFLAM.

1.—von Bechterew noted in a case of retrogressive myelitis that the **patellar reflex** rapidly became fatigued, to be restored by a brief period of rest. Gradually, as improvement occurred, this fatigue of the reflexes ceased until finally the patient was normal. Fatigue of the reflexes may therefore occur in convalescence as well as during disease.

[J. S.]

2.—Lukacz has found that **McCarthy's reflex** can be elicited by striking upon various parts of the face. It is always to be elicited by striking upon the frontal bone, usually by striking the malar bone; not quite as often by striking the root of the nose; less frequently by striking the point of emergence of the facial nerve. The reflex is bilateral, because the innervation of the upper portion of the face is synergetic in adults. The reflex, however, is destroyed when the trigeminal nerve is resected, therefore it seems to be due to irritation of the trigeminal nerve. When this reflex is elicited, the pupil always contracts after a moment, and then dilates. This is somewhat similar to the Westphal-Pilz reaction. [J. S.]

3.—Homburger has studied **Babinski's reflex** in 3 cases of recent apoplexy, all of which terminated in death. In all of them the examination could be made immediately after the attack, and it was found to occur in one within 5 minutes, and in the others very shortly afterwards. The reflex was bilateral, that is to say, before death, which in all cases appeared at the latest on the following day. It could be elicited on the sound side. This was probably an indication that perforation into the ventricles had occurred. He also observed an interesting case in a woman, 42 years of age, who had an attack of apoplexy, and 5 months after isolated dorsal flexion of the great toe on the left side could be determined. The lesion was therefore on the right side of the brain. Three days later the reflex appeared on the right side, and on the evening of the same day disap-

peared on the left, although it persisted on the right. Death occurred and at the autopsy a hemorrhage was found in the right internal capsule, that had penetrated into the ventricle, and finally destroyed the lenticular nucleus and optic thalamus almost completely. Homburger believes that this reflex depends upon the integrity of the thalamus, and therefore its arc must be completed in this region. Its disappearance or absence indicates that the thalamus has been destroyed. [J. S.]

4.—Goldflam compares his case with the one reported by Laquer and Weigert in which there was malignant tumor of the thymus, and in his own case a lymphosarcoma of the lung. Unfortunately the thymus gland was not carefully examined. The question arises whether these malignant tumors have any influence upon the myasthenia. Oppenheim has called attention to the fact that in several cases of this nature that have come to autopsy malignant tumors have been found. The long course of Goldflam's case is particularly interesting, and especially the complete, although temporary, recovery. The paper is still unfinished. [J. S.]

March 1, 1902.

1. The Pathological Anatomy of Tetany of Gastric Origin. G. ROSSOLIMO.

2. A Clinical Form of Disease Resembling Tetany that Occurs in Chronic Lead-Poisoning. H. HAENEL.

3. The Staining of the Central Nervous System With Magenta Red. P. ZOSIN.

4. Further Communications Upon Asthenic Paralysis with the Result of an Autopsy. GOLDFLAM.

1.—Rossolimo reports the case of a man, 43 years of age, who for 15 years had suffered from gastric disease. This had been accompanied by constipation, loss of appetite and occasional nausea and vomiting. He had frequently washed out the stomach. One morning on awakening he had severe headache; in the evening he committed an indiscretion in diet, slept badly that night, next day washed out his stomach, and the day following vomited one-half an hour after breakfast. On the night of the third day he was unable to sleep, there were cramps in the hands and feet, and there was profuse sweating. He became delirious, had pain in the entire body and complete inability to sleep. The following day he was admitted to the hospital. It was determined that the stomach was enormously distended, the patient was weak, walked with difficulty, the gait was staggering, and as soon as he closed the eyes he fell to the ground. The patellar reflexes were lost, the pupils were contracted and failed to react. He died 8 days after the first symptoms. During the last 3 days of his life there was a persistent state of tonic cramps involving the upper and lower extremities, the trunk, neck and face. The latter had the appearance of a mask. Even the eyeballs were involved, and the gaze was directed immovably forward. Examination of the muscles with electricity showed marked increased susceptibility to the electric current. At the autopsy there was hyperemia of the brain and spinal cord, the stomach was dilated and the pylorus contracted as the result of an old scar. The central nervous system was slightly irregular and the muscles were slightly friable but did not show microscopical changes. The picture was that common to severe intoxications. [J. S.]

2.—A man, 24 years of age, type-setter by occupation, gradually developed severe cramp in the left hand, particularly during work. Sometimes there was a disagreeable tingling in the skin. There was a gray line on the gums by the teeth which a microscopical examination of an excised portion showed to consist of a sulphate of lead. His muscles were well developed, from time to time he had attacks resembling myotonia, that is to say, there was resistance to passive or active movements of the muscles, although forcible voluntary movements instead of relieving the condition appeared to make it worse. Myotonic reac-

tion was not present although after several contractions a tonic contraction would occur. The mechanical irritability of the peripheral nerves appeared to be increased. The patient suffered from colic-like attacks. The case resembles tetany, but certain characteristic signs were absent, for instance, Chvostek's sign. The fingers were usually stretched during the cramp, which is unusual in tetany; consciousness persisted during the attacks, and they could be produced by pressure upon the nerves. Myotonia can be excluded and therefore the tetany-like condition seems most probable. Buber has called attention to a condition occurring in the nonparalyzed muscles of a case of lead poisoning somewhat similar to this. [J. S.]

3.—Zosin gives the following method for staining sections hardened in Müller's fluid. They are hardened, imbedded and cut in the usual way, and then stained from 20 minutes to an hour in 1% solution of magenta red, then washed in water, in absolute alcohol, and mounted. They resemble sections stained by Van Gieson's method. The myaline sheathes are yellow, the nuclei are brownish red, the sclerotic tissues and neuroglia are yellow and the ganglion cells are red. [J. S.]

4.—Goldflam reports 2 additional cases of asthenic paralysis: First a man, 22 years old, in whom the paralysis of the muscles developed in the arms, then the thighs, the muscles of the trunk, and finally the muscles of mastication. The functional activity of the muscles rapidly returned after rest. The tendon reflexes were somewhat increased and there was weak ankle clonus. Some improvement occurred after 4 or 5 months. One month after leaving the hospital there was an exacerbation from which the patient rapidly recovered. Six months later he had a second relapse involving the muscles of the face, with marked dyspnea. He gradually grew worse and died. The case is interesting, because the proximal portion of the extremities appeared to be more affected than the distal. The second case, a woman, 22 years of age, whose father had died of tumor of the brain, developed pain in the head, photophobia, then ptosis, disturbance in mastication, nasal voice and weak movements of the head and arm. The disease gradually increased, dyspnea appeared, and the tendon reflexes were greatly increased. After about 2 months when the symptoms seemed exceedingly alarming the patient gradually improved. Later, she had another exacerbation involving the muscles of the face, and then, after several slight exacerbations, felt so well that she married. After this she became very much worse, then improved slightly, then grew worse again, and finally became pregnant for the second time. She improved almost immediately. After a premature birth at the eighth month she improved somewhat, although still showing symptoms of muscular disturbance. The paper is still unfinished. [J. S.]

Pseudangina Pectoris.—Mercklen believes that hysterical angina pectoris is common, especially before the age of 40. It is most frequent in women. The crises in childhood are less severe than those of adult life. Almost anything may be the cause of the attack, even acute articular rheumatism. Frequent paroxysms are often noted about the menopause. Sometimes an attack occurs by suggestion, from seeing a paroxysm in another. There is precordial pain, often with a distinct aura. The paroxysms occur at night, periodically. About the precordia is generally found an area of marked hyperesthesia. Palpitation, rapid pulse and vasomotor symptoms are common. In fact the symptomatology is polymorphous. In some cases true aortitis or endocarditis may exist, yet the attacks of angina pectoris are hysterical. A number of cases were presented. The prognosis is guarded, since the condition may be incurable. Suggestion, tonics, a mineral water cure, a change of air, surroundings, etc. are mentioned in the treatment. During the attack bromides, valerian, amyl nitrite, etc., will prove of service. (*Médecine Moderne*, April 23, 1902).

[M. O.]

Original Articles.

THE TREATMENT OF THE INFANTILE DIARRHEAS OF THE SUMMER SEASON.

By JAMES H. McKEE, M. D.,

of Philadelphia.

Professor in Pediatrics in the Philadelphia Polyclinic. Physician to the Out-Patient Department of the St. Christopher's Hospital for Children, etc.

To prove that fine work has been done in the study of the bacteriology of these diseases during the past decade, one has but to cite the oft quoted researches of Booker, Baginsky, etc. But, on the other hand, these very studies have served to show us the incompleteness of our knowledge and the present impossibility of classifying these diseases from the bacteriological standpoint.

Indeed, a perusal, always profitable, of the splendid articles in Keating's Encyclopedia, forces upon us the conclusions that the *principal* etiological factors in the summer diarrheas, the various pathological changes produced in them and the cardinal principles involved in their treatment, were described in that work as clearly as they have ever been since. One feels that Holt's article in particular must stand as a classic for all time.

The difference between now and then is, that the teachings of that fine advance-guard have become the knowledge of a large body of the rank and file of the profession. And such propagation, in the United States, has been productive of great results, for these dangerous diseases are becoming less prevalent and their effects less dire.

In order that these diarrheas may be successfully dealt with, it is most important that one should adopt or should formulate a working classification of them. All such schemes are open to criticism, just as they were ten years ago; but for practical purposes such a one as this will answer:

Dyspeptic: (Due chiefly to improper or to imperfectly digested food. Bacteria may or may not play a part.)

Acute intestinal indigestion. (Dyspeptic Diarrhea.)

Infectious: (In which bacteria of different kinds play the important role. Such organisms are almost invariably introduced in food, and nearly always in cow's milk.)

1. Fermentative diarrhea. (Mild gastro-enteric infection.)

2. Ileocolitis (Enterocolitis) Acute or Chronic.

3. Cholera infantum.

This is practically the classification of Rotch and of Morse, and containing as it does the older terms applied to these diseases, and suggesting the dominant etiological factors, it may be accepted tentatively. It must be born in mind that any one of these diseases may pass suddenly or grade insensibly into a more severe or a milder form. Thus a patient with a neglected fermentative diarrhea may readily become the victim of the more severe ileocolitis. The dyspeptic diarrhea may pave the way for a severe infection. Again, the patient who has survived the terrible acute symptoms of cholera infantum may

continue to exhibit the evidences of a milder infection.

Dealing with etiology as it does, the above classification serves to direct our first thoughts toward prophylaxis.

Prophylaxis:—The physician, who would prevent the occurrence of the diseases under consideration, must look first to his patient; second, to the infant's food; and third, to the other environmental conditions of the patient.

The baby, who is weak from any cause, is more liable to contract one of these diseases than is his sturdier contemporary. Not only this, but he possibly dies from a relatively mild form of disease. I well remember a rachitic baby of thirteen months, who was seen one hot July morning, and who displayed the symptoms of a mild gastro-intestinal infection. That evening I received a phone message stating that he was worse and arrived at the house to find him dead.

One need scarcely enumerate all of the conditions which may weaken the resisting powers of the infant. The most frequent one is rickets; but syphilis, tuberculosis, anemia from any cause, scurvy, convalescence from the acute infectious diseases, stomatitis, etc., are all important forerunners of the summer diarrheas. A diarrhea in a tuberculous subject may simulate ileocolitis of the ordinary type. Such a case was observed in the wards of St. Christopher's Hospital. The child was discharged as cured, returned one month later with a similar attack, except that there was prolapse of the anus, and in this attack she perished. An autopsy revealed general tuberculosis, with well-marked intestinal lesions; though the changes which were apparently most advanced were found in the bronchial lymphnodes.

Dentition is a process which may prove of much predisposing importance, particularly in the rachitic infant. Those who deny it a pathological rôle are almost as unscientific as those who attribute to it all of the ills in the calendar. In many infants dentition does weaken temporarily the digestive functions and so may pave the way for the dyspeptic diarrhea or for the infection.

Whilst speaking of the infant, one should lay stress upon the care of his mouth. A good antiseptic mouth-wash should always be used before feeding, but when there is vomiting from any cause, oral cleansing should be resorted to more frequently and thoroughly. For the latter purpose, one of the appended prescriptions will serve:

R		
Oil of peppermint		m xxx
Oil of cloves		
Oil of gaultheria	āā	m xv
Glycerine		f. ʒ ss
Distilled water	q. s. ad.	ft. f. ʒ iii
Or,		
R		
Boric acid		gr. xxx
Hydrogen peroxide		f. ʒ i
Glycerine		f. ʒ ss
Rose water	q. s. ad.	ft. f. ʒ iii

The diet:—Few breast-fed babies suffer from these diarrheas, but that they may contract one or another form should not be forgotten.

Thus, a breast-milk rich in proteid may cause intestinal indigestion in the infant. In such cases the rules laid down by Rotch are of importance. (1) Effect dilution of the proteids by giving the baby water before each nursing. (2) Lessen the amount of proteid in the mother's diet. (3) Make the mother indulge in physical exercise up to the fatigue point. One may add that these directions do not always apply to neurotic mothers, in whose milk the proteids may run very high. In my experience nothing benefits them and the quality of their milk so much as tonics (the compound sumbul pill, the mixture of the four chlorides, etc.), a concentrated nutritious diet and a modified rest cure.

With high fat percentage in the mother's milk the writer has not met; but when superabundant fats cause diarrhea, the suggestion to diminish the amount of meat that the mother eats seems in full accord with modern physiology.

Milk infections in the nursing are very rare, but they do occur occasionally. Such accidents may be prevented by proper aseptic care of the mothers nipples and of the baby's mouth. In the practice of a medical friend, Dr. Frishmuth, a most striking case of milk infection occurred in an infant at the breast. He found the mother's undervest and corset simply saturated with decomposing milk.

With hand-fed babies we strive to prevent intestinal indigestion by the adaptation of a proper milk formula to their digestive powers and their nutritive needs; and percentage feeding in skilled hands yields splendid results. There are a number of methods of obtaining such percentage formulæ; the best of which, in the main, is through the milk laboratory; but when expense or geographic location preclude such feeding, my own preference is for the simple method of Baner. His formulæ have been good friends in a number of difficult cases.

During dentition, or when the digestion of the infant is weakened from any cause, the percentages of solid constituents must be temporarily decreased, in spite of the fact that the infant has been thriving upon a stronger formula. Or, with poorly nourished babies at such times, one may peptonize the food for a few days, and gradually lessen the amount of peptonization as the infantile digestion returns to its former state. It is well to give mothers such directions before they leave town for the summer months.

For the infant in the second year, diet-lists should always be provided, one for the first half of the year and the other for the latter. The great importance of feeding in the second year of life precludes its consideration in this article, but one may refer the seeker after knowledge to the text-books of Holt, Rotch, etc., or to such excellent mother's books as those of Griffith and Starr. The recent article by Southworth* upon the subject contains a number of valuable suggestions. It must always be borne in mind that an excess of carbohydrates in the diet at this time may furnish an important factor in the production of the fermentative diarrhea.

*Archives of Pediatrics, May, 1902.

In addition to these instructions to the mother the following one may prove of life-saving value: "If fever and prostration should accompany a diarrhea (with or without vomiting); and if the stools should be green and of offensive odor, or should contain blood and mucus, or should be very frequent and watery, give calomel, stop all milk and send for a neighboring physician."

This brings us to the consideration of the infectious diarrheas.

Writers of several years ago predicted that pure cow's milk would be obtained eventually by bottling and sealing the milk upon the model dairy farm. This prophecy has been fully realized, and the story of its fulfilment is briefly summarized in the views of Rotch, their adoption by the Walker-Gordon people and the certified milks of Newark, Buffalo, Boston, Philadelphia, New York, etc. Sterilization and pasteurization have both served useful purposes, and will continue to do so under certain conditions; but in the certified milk we have a much better answer to the pure milk problem.

In the first two years of life, in the summer months at least, certified milk is the only milk that the city baby should receive. The average baby, even in the second year, does not take more than a quart of milk a day, and it is a witless parsimony indeed which would cavil at spending twenty-eight cents more a week to secure a pure food for the baby.

At the present time one may safely make another prediction, and that is, the public knowledge of the value of certified milk will gradually force all city milk-dealers to comply with the sanitary regulations which have enabled the advanced few to secure a relatively pure milk. At present, progressive milk dealers are striving with the more difficult problem of producing a pure cream.

Possibly, tardy legislation may eventually coerce the unprogressive milkman to like endeavors.

All methods of preserving milk by means of chemical agents have been shown to be inimical to the action of the digestive ferments. The presence of such preservatives is sometimes revealed when the cook or the housewife endeavors to make junket and fails to obtain any result. Incidentally such a negative result is a demonstration of the inhibitory effect of formaldehyde, etc., upon zymolysis.

It is the firm belief of the writer that the infant in the city who is receiving a certified milk is better off than the baby in the country whose milk is not properly handled and kept. During the past three years, he has seen the worst cases of milk infection in the country, or the sick babies have originally contracted the disease in the country. While this article was in preparation a true case of cholera infantum was seen at a neighboring country resort.

Mothers who have their infants upon farms can minimize the danger of milk infection by securing the milk soon after the milking, sealing it in clean glass jars and subjecting it to a rapid cooling upon ice. The spring house should be regarded as a relic that has outlined its usefulness. Whenever the least doubt exists as to the purity of a country milk, it should be subjected to pasteurization. The pos-

sibility of the infant's contracting a disease like scurvy does not influence us when we think that omission of pasteurization may result in the more dangerous milk infection.

Ice is an essential in the proper preservation of milk for babies. In New Hampshire, the barn is a part of the house and is kept scrupulously clean, and yet we had trouble with milk from such a farm until it was subjected to a preliminary cooling upon ice.

Farmers who knowingly use the milk of a cow suffering from sore udders should be subject to criminal prosecution. The presence of the same pus cocci, particularly the streptococcus, has in several instances been revealed in the abscess pus, the cow's milk and the baby's stool. Woodward observed a most instructive example of such infection, in which the milk of two diseased cows had not only contaminated the milk of a whole herd, but also that of the numerous farms from which the city dealer derived his supply. In a country child suffering from ileocolitis and seen by the writer at St. Christopher's Hospital, a stained smear of the blood and mucus from a stool revealed numbers of streptococci. Booker found the same organisms in a number of severe cases.

The environment:—To state that the city is no place for babies during the summer months is to voice a platitude; provided, of course, that the milk-supply of the summer residence is pure in quality or is pasteurized to prevent infection.

The results of high temperature and humidity have been considered too often to deserve lengthy attention. They favor the growth of bacterial flora in the milk; they serve to enervate the infant, and the presence of miliaria rubra may cause serious reflex disturbance. With regard to thermic fever in infants we have never been convinced that the condition occurs.

Overcrowding, particularly where there are other babies with diarrhea, infected water, dirty toys and other unhygienic conditions may one or all constitute predisposing or direct causes of the summer diarrhea. Such splendid charities as model tenement erection, sea-side homes, country weeks, day nurseries, diet kitchens, etc., are doing much to remove or to mitigate such influences even in society's lowest stratum. The trolley car, the steamboat and the public park may also be utilized in preventive and corrective treatment of these diseases among the unfavored classes.

In the treatment of any form of summer diarrhea in the infant the first consideration is the diet:

In the case of the nursling we strive to modify the composition of the mother's milk along the lines indicated; too frequently an unsuccessful operation.

In the case of the bottle-fed baby, unless he is suffering from mild dyspeptic diarrhea, it is safer to withdraw milk from the diet, because the baby with such a diarrhea offers a splendid soil for infection.

With slight dyspeptic diarrheas, such as may attend dentition, the weaker milk formula or the peptonization of the milk carries us over the period of weakened digestion.

When a milk infection is present or is suspected

one invariably withdraws the milk and resumes its use only gradually after all danger is past. In these cases it is wiser to give no nourishment at all in the first twenty-four hours of the illness. Boiled water should be given at frequent intervals, however. During the second day, or if the infant becomes ravenously hungry before that, the use of barley water is indicated. Many babies will not take it, and in this case one may avail oneself of Chapin's valuable suggestion; viz, that one add a few drops of aromatic spirits of ammonia to the barley water. This has stood me in good stead a number of times. In cases in which an excess of carbohydrate, as found in the prepared foods, has been responsible for the fermentative diarrhea, barley water is positively contraindicated.

Beef-juice, if freshly prepared, is usually well borne and on the second or third day may be given in much larger amounts than those generally advocated. It occasionally causes diarrhea, but in such cases it is passed unaltered in the stool. Miller has recorded a case in which the exhibition of rare beef-juice resulted in the infection of the patient with *tenia saginata*.

In most cases the animal broths, particularly mutton and veal broths, may be given upon the third day, and may continue to replace one or two of the daily milk feedings for some time. In chronic ileocolitis they may prove invaluable. It is in this troublesome and most serious affection that the artificial foods may also be temporarily used. One should never regard them, however, as other than temporary expedients and should get the baby back upon the more natural fresh milk as soon as that may be accomplished with safety.

Milk feeding should always be resumed gradually, probably never sooner than forty-eight hours after all acute symptoms have subsided, and then only in the form of weak formulæ. Again, one must always feel one's way and upon the appearance of the least untoward symptom must again stop the milk. Chronic ileocolitis may indeed exhaust one's resources in the realm of dietetics.

The purge.—No rule in the domain of treatment meets with greater unanimity of acceptance than that which relates to the unloading of the bowel in these diseases. A purge or a laxative should always be given as a preliminary to other treatment, and not infrequently such drugs must be resorted to several times.

When there is a clear history of the ingestion of some indigestible substance and the patient is seen early, castor oil is regarded as the laxative of preference. In dyspeptic cases which are observed after several days, in cases in which there is great gastric irritability and in all of the infectious cases, calomel is the best drug. It may be given in divided doses, as it usually is; or in cholera infantum one may adopt the suggestion of Victor Vaughan and introduce a single large dose through the tube that is used for lavage.

When a laxative must be given several times during the course of the disease, unscientific as it ap-

pears in theory, calomel or gray powder may be combined efficiently with an astringent:

℞	
Hydrarg. cum cretæ	gr. 1/6
Salol	gr. i
Bismuth subnit.	gr. v
Sacchari lactis	gr. v

One dose.

Or in cases with much tenesmus castor oil may be combined in a somewhat similar way:

℞	
Ol. caryophyll.	m ii
Ol. menth. pip.	m ii
Ol. ricini	m x
Bismuthi subnit.	gr. v
Mucilag. acaciæ	
Aquæ	q. s. ad. ft. f. 3 i

One dose.

Astringents:—In many of the dyspeptic cases, and in some of the milder infections, these drugs are not needed at all. In most of the severe infectious cases their exhibition is necessary. For acute cases the salts of bismuth are the only ones in general use at the present day. They should not be administered whilst there are fever and foul-smelling stools, unless the movements are very frequent and are exhausting the patient. The massive dose of bismuth for the purpose of suddenly checking the discharges in a case of chronic or subacute ileocolitis, is positively contraindicated. In such cases the strain of elimination may be thrown upon the kidneys.

When bismuth fails in its proper sphere, it is frequently because it is administered in insufficient amounts. Not less than five grains of the subnitrate, subcarbonate or subgallate should be given to an infant of one year.

In chronic cases silver nitrate in doses of ½ grain, and administered three times daily, half an hour before feeding, is a remedy of signal value.

With tannigen and similar preparations, the writer has had no experience.

Intestinal antiseptics:—A few years ago each authority was prone to vaunt his favorite antiseptic; but now the tendency is to pronounce them all worthless or unnecessary. Possibly the pendulum has swung too far in the other direction.

When a resident at the Philadelphia Hospital, the writer observed that the odor of the stools in tuberculous enteritis was diminished to a considerable degree when salol was administered to the patients. It would appear that such an agent must decrease putrefactive changes at least. He has used salol ever since in the treatment of the summer diarrheas and believes with benefit. To an infant, aged one year, the dose is one grain, given every two or three hours and preferably before feedings. Such dosage has never in his experience led to symptoms of salol poisoning.

The repeated reports from East India as to the value of salol in true cholera would certainly seem to furnish confirmatory evidence of the correctness of this position.

Opium and its preparations:—Impressed by the powerful teachings of that great man, Horatio C. Wood, many young men have started to practise

medicine, believing that this drug in the treatment of infants is labelled with the words *noli me tangere*.

That opium and its principal alkaloid are powerful drugs, and that their administration must be carefully pursued, no one can deny, but that they are also of great value in the affections under consideration most pediatricists are agreed. The following aphorisms may be formulated respecting their use:

1. Opium or morphine is needed in relatively few cases of infantile diarrhea.

2. Its indications are practically three: (A) After their odor has lessened and the patient's temperature has fallen, when the stools continue frequent in spite of the administration of bismuth. (B) To control pain with great restlessness and loss of sleep. (C) In cholera infantum.

The preparation and the mode of administration: The last time that I heard the late Dr. Wm. Pepper discuss a medical paper, he spoke upon this very subject and stated his preference for the local use of opium by the rectum. He believed that one thus lessened the inhibitory effect of the drug upon the secretion of the gastric and intestinal juices. Opium used in suppository is certainly most efficient in meeting the first two indications; 1-20 of a grain of the extract may be incorporated in a small suppository, and the dose may be repeated in from four to six hours if necessary.

Dover's Powder, the deodorized tincture and paregoric are preparations which various authorities administer by the mouth.

In cholera infantum, morphine, preferably in combination with atropine, should be given hypodermically.

As to the dose:—One uses opium to secure a definite effect, and the result determines the dosage; but a safe working-rule is to select a minimum dose for an adult and apply Young's rule.

For a one year old infant the dose would be determined as follows: The minimum dose for an adult is $\frac{1}{8}$ grain of morphine. Add 1, the babies age, to the No. 12. This gives us the result 13. Now $\frac{1}{8}$ divided by 13 equals 1-104 of a grain; 1-100 of a grain is the dose that Holt recommends in cholera infantum. It is safer to err upon the side of a small dose, as this can be repeated.

Enteroclysis and hypodermoclysis:—It is the consensus of opinion that the former measure has been much abused, that it has been employed when it was not indicated, and has been overdone in cases in which its proper use might have done good. It still remains, within its proper sphere, one of the most valuable agents in our armamentarium. One may state with regard to it, that it is indicated:

1. When irritating material still remains within the bowel and is giving rise to mechanical or bacterial disturbance.

2. When, in acute cases, fever and foul smelling discharges persist for several days.

3. In cholera infantum, when it should be supplemented by lavage. It is used here not only as a cleansing measure, but also to combat the anhydremia. If such patients are seen early in the attack when the temperature is quite high, iced saline

solution is very valuable for lavage and enteroclysis; but when prostration has supervened and the surface temperature is low, hot solutions (110° F.) are preferable for both purposes.

4. In acute cases one needs no other solution than the commonly employed one of sodium chloride.

5. Except in cholera infantum, enteroclysis should very rarely be used more than twice daily, and seldom more than once. In the former disease one uses it more frequently until the results are accomplished.

6. In chronic ileocolitis, tannic acid or silver nitrate injections given once daily may prove more valuable than any drugs given by the mouth.

The writer still uses a soft female catheter for enteroclysis, and, in chronic cases particularly, one should be afraid of the use of a stiffer instrument. When the baby is struggling, it is best not to try to pass the catheter more than two or three inches, as it may turn upon itself, but in a patient who is quiet it may often be passed a much greater distance. The funnel or the bag which holds the fluid should never be held or suspended more than two or three feet above the patient.

Hypodermoclysis is a most effectual measure in the treatment of cholera infantum or of that condition, seen in ileocolitis, which has been styled hydrocephaloid. The sterile normal salt solution which is used for this purpose should be higher in temperature than the bodily temperature and should be introduced in smaller amounts (two to four ounces) than those usually advocated.

Stimulants:—With regard to the administration of alcohol, a great diversity of opinion exists. In mild cases it is not needed, but in those in which marked prostration is present, alcohol is most valuable. In obstinate vomiting, as in cholera infantum, iced seltzer or soda with brandy is one of the few combinations which may remain on the stomach. Even the brandy, in this condition, may have to be given hypodermically.

Neither brandy nor old whiskey should be given needlessly, but when a stimulant is called for, either one, in doses of from 10 to 30 minims, is indicated.

In cholera infantum atropine sulphate (1-600 to 1-400 of a grain), and strychnine sulphate (1-300 to 1-250 of a grain), are both drugs of worth. Strychnine is also of value in protracted cases.

Treatment of the fever:—The cold pack supplemented by friction is the best agent we possess to combat the effects of high temperature. In milder cases the cold sponge may suffice to reduce the baby's fever and to add materially to his comfort. The patient should not be dried thoroughly, but a film of water should be left upon the skin.

The ice-water enema has been mentioned, and is another powerful method of coping with hyperpyrexia.

In cholera infantum which has advanced to the second stage, the hot bath, mustard bath or hot pack may serve to improve the surface circulation.

Complications:—The most frequent and most feared complication is catarrhal pneumonia. Some inter-

esting bacteriological studies have shown that the intestinal pathogenic organisms do not usually penetrate the intestinal mucosa to a great depth, and are not found in the blood. In cases complicated with catarrhal pneumonia the organisms found in the pneumonic lung are often of other varieties than the intestinal bacteria. Such finds are very suggestive and support the conclusion that such pneumonias are aspiratory in character, the weak condition of the patient favoring such an occurrence. And this conclusion again suggests the importance of the toilet of the mouth and pharynx.

When the pneumonia has occurred, its treatment does not differ from that of catarrhal pneumonia observed under other conditions.

Nephritis is a complication which appears more rarely than was formerly thought, but which must be energetically treated when it occurs. The treatment should be initiated by a withdrawal of animal broths from the diet. In a very limited experience (two cases, in chronic ileocolitis) sparteine sulphate has proved to be the most valuable drug. Caffeine and nitroglycerine are other remedies of value.

The hot pack is most efficient in stimulating the skin to activity, but the writer has had no experience with pilocarpine in this condition.

In cases in which marked edema appears but in which there are no urinary findings of nephritis, the same lines of treatment will prove useful. These cases are much more common and, while they do not exhibit evidence of true nephritis, they do appear to display a renal insufficiency. A study of the total solids passed by these infants in the 24 hours would be most interesting, but it would also be very difficult to pursue.

Convalescence:—This period should be most carefully watched and managed. Nature's tonics are of predominant importance at this time, but their beneficial effects may be materially contributed to through the use of drugs. Strychnine, arsenic and iron are the best of the tonic remedies at this time.

Strychnine, particularly when anorexia exists, is well administered as the tincture of nux vomica, using a good old port wine as a vehicle. Infants readily take one or two minims of the tincture in one half or one drachm of the port.

Arsenic and iron are usually used in the time honored forms of Fowler's solution and of the syrup of the iodide of iron.

For babies in the second year, the writer often combines the iron and arsenic in the good old mixture of the four chlorides. The preparation is sometimes taken under protest, but fulfils indications admirably.

In conclusion, it may be said that the treatment of these diseases, shifting as little as it has during the past decade, may be said to have arrived at a somewhat unassailable position. Our best endeavors should be and are directed toward prophylaxis, but when the summer diarrheas occur in spite of preventive measures or because they are imperfectly carried out, the majority of authorities are agreed upon the essential principles of treatment.

THE TREATMENT OF ACUTE MILK POISONING— SUMMER DIARRHEA.

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The brilliant advances in medical science that have distinguished the last two decades of the nineteenth century have conferred no more beneficent heritage upon the unborn generations of the new century than the knowledge that summer diarrheal diseases must be largely relegated to the class of the preventable infections. Physicians who have had the opportunity, afforded by large public clinics, of observing the diseases of infancy and childhood during the past ten years, have remarked the gradually diminishing prevalence of summer diarrheal diseases and their generally milder manifestations. This has been attributable to two prime factors: First, a steady improvement in dairy methods of producing, handling and marketing the milk-supply of our large cities; and second, a more widely spreading knowledge among the laity, even of the poorest classes, of the cardinal principles of domestic hygiene, and of enlightened methods of infant feeding.

The humblest housekeeper has learned that ice is an indispensable necessity in summer, and few mothers of average intelligence now come to hospital dispensaries who are not well aware that sound milk and scrupulous cleanliness in its preparation are the strongest safeguards against many of the dangers of their babies' "second summer."

While we may look forward with abundant hope to a time when milk infection, thanks to continued improvements in dairy management, shall become an increasingly rare accident, at the present day it must be recognized as one of the most important and widespread perils that periodically assail the health and often the life of every infant that depends for its sustenance upon the milk of the domestic cow.

Nor must it be assumed that the ordinary natural fermentative changes in cow's milk are alone to blame for all cases of intestinal disturbance.

There is accumulating evidence to show that certain favorable atmospheric and seasonal conditions play an important role in favoring the growth of rarer forms of bacterial life, which, by air-borne infection during the earlier stages of dairy handling, become a widespread source of milk contamination, and thus serious intestinal disturbances may be set up by the use of milk apparently fresh and sweet. For this reason the summers of certain years may be productive of more serious outbreaks of intestinal diseases than those in which the general range of temperature alone may prove most trying.

There is reason to believe that the present summer may be marked by a more widespread prevalence of diarrheal diseases than we have been accustomed to in the past few years. In view of this the present paper may be of not untimely interest.

The discussion of the treatment of summer diarrheas naturally falls under three heads: (1) Prophyl-

actic treatment; (2) dietetic treatment; and (3) medicinal treatment.

Prophylactic treatment.—The cardinal principle of prophylaxis lies in the use of pure cows' milk as a basis of the infant's food. By pure milk is meant the mixed milk of a herd of perfectly healthy tuberculin-tested cows, which contains a fairly constant average percentage of fat, proteids and sugar; which is free from artificial coloring matter or preservatives; and which contains a minimum count of bacteria of all varieties to the cubic centimeter, with complete absence of any varieties of pathogenic organisms. As a means to this end we must also insist upon rigid periodical inspection, by a competent veterinary surgeon, of the health of the cows, and of the sanitary condition of the dairy buildings and pasture; upon the personal health of the dairy hands and their freedom from contamination by contagious diseases; and upon the most scrupulous cleanliness and asepsis in every step of the preparation of the milk for delivery, which includes sterilization of all implements and vessels coming in contact with the milk, and the plentiful use of ice from the time the milk is bottled to the moment of delivery to the consumer.

In this connection attention should be directed for a moment to the very valuable work which has been accomplished in this field by the Pediatric Society of Philadelphia, which has, for more than two years, through its Milk Commission maintained a supervising control over the milk supplied under its certificate by four producers of prominence in the city. The practical results of this work, which have been recently reported to the profession by Dr. S. M. Hamill, the Secretary of the Commission, have given renewed encouragement to the Society to continue and enlarge this field of usefulness. While milk produced under these elaborate precautions costs a little more than the ordinary grade of milk, this slightly increased expense should not be allowed to weigh against the danger that may attend the use of inferior milk, that is so likely to cause illness during the hot weather of summer. I have frequently found that even in dispensary practice mothers are only too glad to get the best certified milk that can be bought, rather than run increased risk with the grade of milk they have previously been using. It must be remembered, however, that with the delivery of the milk to the consumer the responsibility of the producer ends and that of the mother begins. We must therefore insist upon a liberal supply of ice in the baby's refrigerator, and upon scrupulous cleanliness in the care of all the feeding utensils.

When certified milk cannot be obtained, it is desirable that the supply for the day's feeding should be obtained from the morning milking, and, if possible, that a fresh supply from the evening milking should be used for the preparation of the night feedings. Ordinarily, milk is delivered to the consumer only once in the day; but when the dairy is near at hand, double delivery may be easily arranged. In the city it is highly important to insist that the milk should be delivered directly into the

hands of a member of the household. Several weeks ago the writer was able to trace a case of milk poisoning to the fact that the milk jar had been left exposed without ice upon the door step early in the morning, an hour or more before the servants came downstairs. The milk was reliable, one of those certified by the Milk Commission, but this exposure without ice to the warm temperature prevalent a few weeks ago was sufficient to set up changes that were quickly manifested in the attack of diarrhea that upset the baby, until then in perfect health.

What has been said of the purity and freshness of milk applies with even greater force to cream. As ordinarily sold, gravity cream is unfit for infant feeding at any time of the year because of its age, but in hot weather its use is criminal. The same objection does not hold against centrifugal cream from pure milk. It is a much safer plan, however, to avoid separated cream altogether during the hot weather, making use of the cream layer of fresh bottled milk, by skimming or syphoning, or obtaining milk of various fat strength by the dipper-method suggested by Dr. Henry Dwight Chapin, of New York.

During extremely hot weather, pasteurization or even sterilization of the milk mixture may be resorted to as a method for preservation; but it must not be forgotten that neither of these processes can make wholesome a milk already unfit for food, though they may retard further changes. For this reason commercial pasteurization or sterilization of milk is not a guarantee of safety from the ordinary dangers of milk feeding, and even suggests a lack of confidence on the part of the producer in the original purity of his product.

Another often unrecognized cause of deterioration of milk in the household may be traced to a rather common habit of heating the night bottle quite hot just before the parents retire, and keeping it warm in a cozy or in the bed itself until such time as the baby wakes for its feeding. No more favorable conditions for producing rapid souring of milk could be desired; and in a previous contribution to the subject (*International Clinics*, October, 1900) the writer has shown by experiment the startling rapidity with which bacteria may increase in a milk mixture kept for several hours under similar conditions. A feeding mixture partially peptonized at the time of its combination and pasteurized by raising it to a temperature of 167° F. was used in these experiments. A count of the colonies of bacteria was made just after the peptonizing process was completed, and the sealed bottle after cooling in the refrigerator was then placed within a teacozy in contact with a hot-water bag, the temperature of which was about 115° F. At the end of 3 hours another count was made, the milk being still warm enough to feed to a baby. The following observations were made:

Before, 685; after, 263,010.

Before, 39,435; after, 128,347.

Before, 143,738; after, 1,559,375.

Before, 14,500; after, 62,634.

Before, 67,236; after, 1,593,218.

These figures were the means of duplicate results on different culture media. It is quite likely that, if unpasteurized milk had been used in these experiments, the results of the second count would have been even more startling than those obtained in the experiments.

Another precaution that may be helpful in very hot weather is to give no milk that has been kept over night from the supply of the day before, which at the time of delivery is likely to be already 12 to 18 hours old. If the fresh supply of milk cannot be obtained before the first morning bottle is due, a bottle of albumin water or of condensed milk mixture may be given. In this way the child may escape even a mild infection, which is especially desirable when we remember how difficult it often is to overcome an infected condition of the intestine as long as the hot weather lasts.

Again, it will often be advantageous to weaken the strength of a baby's food mixture slightly during the hot weather. A child who is taking a mixture which is just within his digestive capacities may avoid a digestive diarrhea in the enervating weather of summer if the fat and proteid percentages are somewhat decreased. The simplest way in which this can be accomplished is by fractional dilution of his ordinary formula. If, for instance, he is taking a mixture of 6 oz. of any formula containing over 1.50 per cent. of proteids, a half ounce to an ounce of the bottle may be removed and its bulk made good by the addition of an equal quantity of diluent. It is then very easy to get back to the regular formula, when so desired, by gradually omitting the additional diluent and increasing by equal amount the original mixture. This plan avoids frequent recalculation of formulæ and may be left to the judgment of the mother without requiring frequent supervision by the physician.

In many instances the danger of serious milk poisoning may be avoided if, at the slightest sign of disturbance of the stomach or bowels, the mother has been previously instructed to stop milk feeding at once and give a good dose of castor oil, which should be followed in the cases showing a tendency to greenness and curdiness of the stools by small doses of calomel, say one-twentieth of a grain three or four times a day for two or three days. If the mother is taught that her baby may live comfortably and safely on a diet of little more than water for several days, there will be no difficulty in getting her to stop milk feeding for a time whenever the bowels become disturbed.

It seems scarcely necessary to refer to the popular fallacy that looseness of bowels in summer is a necessary accompaniment of teething. As to the question of teething, however, a word might be said: The nervous erethism attending the eruption of teeth may at times and in more susceptible infants produce a slight increase in the frequency of movements without other disturbance in color or appearance than would be expected from the greater rapidity with which the food has passed through the bowel. The diagnosis in every case, however, must

be made by exclusion, and it is always safest to regard any case of irregularity in summer weather as a possible beginning enterocolitis and to treat it accordingly. In the presence of a summer diarrhea, however, dentition becomes a factor of considerable importance, adding greatly to the child's discomfort and doubtlessly aggravating the nervous irritability of the bowel. Under these conditions lancing of the gum is a rational procedure and is perfectly safe when performed with a sterilized knife, the little wound being treated with antiseptic lotions for 48 hours following the operation.

Dietetic Treatment.—In the presence of a summer diarrhea of any and every degree of severity the first dietetic principle is absolutely to interdict the use of cow's milk. This principle is often violated, either because the baby may object for a time to taking a substitute which does not taste like his usual feeding mixture; or, without the physician's knowledge, the mother may keep on giving "tastes" of milk to prevent the baby's being "starved to death."

It is just as rational to expect to cure an attack of milk infection while milk is continued in the diet as to attempt to cure the morphine habit while morphine is given to secure sleep and quietness, or, perhaps with a closer analogy, to control glycosuria without excluding starches and sugars from the dietary. In such cases it is not the milk itself which may be harmful, but the continuance of favorable conditions for bacterial development kept up by the fresh supplies of the preferred culture medium for the bacteria already swarming in the intestinal canal. Milk starvation of the infant really means milk starvation of the bacteria, and as this culture medium is no longer supplied, the great bulk of bacteria perish for want of sustenance. Milk starvation, conjoined with intestinal antiseptics for the middle gut and enteroclysis for the large bowel, constitutes the chief therapeutic formula for the treatment of such conditions. The next question is: What substitute for milk should be used, and how long should milk starvation be practised?

One of the most important needs of the system, in this as in many other conditions of infectious illness, is water. It is, therefore, important that an amount of water approaching that to which the child is accustomed in health should, if possible, be administered by the mouth, and with this may be given a modicum of food. Thus, albumin water, salted or sweetened, barley water, acacia water, rice water or, sometimes, Vals or Vichy may be given at intervals of two hours in quantities somewhat smaller than that of the usual bottle meal. With this may be given, if otherwise indicated, a small dose of brandy or whiskey according to age, with half to one or two teaspoonfuls of one of several concentrated albumose or peptone preparations, which are usually well borne. If the stomach is very irritable, albumin water is usually better retained than the other preparations. If the stomach is especially intolerant of reasonable quantities of fluid, one or two teaspoonfuls of raw beef-juice for a time may be employed. This does not preclude the use of appropriate drug treatment which should be early begun. Whatever deficiency of fluid may

be occasioned by inappetence or distaste for the accustomed feeding can usually be supplemented by the intestinal irrigating fluid, which is in part absorbed and enters the circulation, where it acts as a stimulant to the heart and also especially to the kidneys, which respond, as a rule, very promptly.

The length of time during which fresh milk should be withheld from the diet will vary according to the degree of severity of the case and the promptness with which the intestinal discharges become normal in frequency. The most common mistake is to resume milk feeding too early, thereby furnishing material for re-infection within the intestinal canal, even though the milk itself may be perfectly sound.

With babies who are in good condition at the onset of an attack of summer diarrhea, fresh milk should be entirely withheld for from five to six days to a week, and frequently even longer. Under the plan of feeding above suggested, a well-nourished, healthy baby will show little evidence of starvation even at the end of the week. By this time, however, or in some cases much earlier, the number of bowel movements will have decreased to one or two a day, and other evidences of intestinal irritation will have subsided. Even before this time the baby may show signs of hunger, and it will then become necessary to add something to the watery mixture to give it a body. It has been a fact of frequent observation in dispensary practice that babies with diarrhea who had been previously fed upon condensed milk could be put back upon this diet earlier and with greater safety than the babies fed upon fresh milk. This is doubtless to be attributed to the fact that condensed milk ordinarily is a sterile preparation and that the percentage of fat and proteids in weak dilutions are quite low, both of which qualities are for the time of considerable practical importance.

It has, therefore, seemed of advantage to make use of this property of condensed milk by employing it in very weak dilutions for a time in preference to an immediate return to fresh milk. A dilution of 1 drachm to 4 ounces of egg or barley water offers a satisfactory strength for most cases. In some instances even this weak mixture is not well digested and then partial peptonization may be resorted to.

After the movements have become natural in consistency and frequency, the most satisfactory plan for returning to a fresh milk diet is to prepare and sterilize the milk mixture to which the baby has been accustomed, at first in quarter or half of the usual amount for the day, and to begin by taking out not more than half an ounce of the condensed milk mixture or of the other food that is being given, as prepared for the feeding, and replacing it by an equal quantity of the fresh milk mixture. This gradual substitution of one mixture for the other may be continued with varying rapidity, according to the strength of digestion, until half of the feeding consists of the fresh milk mixture; after this, or even before, the condensed milk may be omitted altogether and the feeding will consist of a one-in-two dilution of the original mixture, which will contain just half of the original percentages. From this point

the proportion of the milk mixture may be cautiously increased according to the digestion as judged by the bowel movements, until all added diluent is omitted and the baby has returned to his usual feeding. Since, however, the intestinal mucous membrane is still very prone to irritation, the child may not be able to take the full strength of his original feeding mixture for a considerable length of time, say a month or six weeks. In many cases partial peptonization of the mixture may be very helpful; and in some instances, in the convalescence from a very severe attack of the disease, the whole plan of feeding may require change, and in these cases a differential modification of the proteids by means of whey mixtures may offer the most satisfactory solution of the dietetic problem.

In concluding this division of the subject I cannot too emphatically commend the excellent results to be obtained during convalescence from the severer grades of the disease in young infants by a temporary resort to partial or complete wet-nursing. Provided the woman be in good health and her baby thriving, no theoretical objections as to differences between the age of the sick baby and the period of the nurse's lactation need be taken into account, provided, of course, the colostrum period has been passed. Even if the woman cannot supply sufficient milk for the whole nourishment of the convalescing baby, one, two or three nursings a day will be of invaluable aid; and even if she can only spare a little milk, say 5 to 8 ounces a day, this may be used with a diluent in a sort of human milk modification, the amount supplied being apportioned as equally as possible in the bottles of the artificial feeding mixture. A few ounces of human milk with the balance of the bottle made up with pasteurized whey will, in the more serious cases, supply a form of nourishment for a limited period that may save life and bring about rapid restoration to health. In these cases the human milk acts not only as a food, but as a powerful vital tonic and hematinic.

Medicinal Treatment.—The medicinal treatment of summer diarrhea should begin with a good dose of castor oil, or of castor oil and spiced syrup of rhubarb in the proportion of two parts to one, which should be given as soon as the milk feeding has been stopped. If the stomach is very irritable, small repeated doses of calomel or of mercury with chalk may be used at first, the dose of oil being withheld until the stomach is sufficiently quieted to permit of its administration. In the simple diarrheal cases the initial dose of oil may be followed by calomel in small fractional doses (1-24 — 1-16 grain) three or four times a day for two or three days, for its antiseptic action on the intestinal contents.

As soon as the bowels have been thoroughly unloaded, an intestinal irrigation with normal salt solution should be ordered. This may be intrusted to the mother, who should be instructed to have the solution in the bag of a temperature of 110° to 115° F., to allow for cooling during the progress of the operation. The ordinary smallest-size nozzle of the fountain syringe may be used, and if the bottom of the bag is not raised more than 18 inches above the child's body, this slight elevation will insure a

Stimulants are often needed in the severer cases. Of these, whiskey or brandy may be given with the food or separately according to their acceptability to the little patient. The pulse should be carefully watched and at the first signs of weakness digitalis or strophanthus should be added, at first in doses of fractional parts of a minim (one-eighth to one-quarter minim) every 2 or 3 hours. Strychnine should be avoided because of its stimulating effect on intestinal peristalsis. When the stomach is very irritable or is intolerant of medicines, it may be ne-

cessary to administer stimulants hypodermically. In this case digitalin in doses of one-four hundredth to one-two hundredth grain, or even larger, may be given every 4 to 6 hours, or nitroglycerine under appropriate indications.

In the cases that approach in symptoms the suddenness and severity of a true cholera infantum, treatment must be prompt and radical, beginning with gastric and intestinal lavage, followed by full doses of calomel and free stimulation, especially by hypodermic injection. Hypodermoclysis may prove a valuable adjunct to this treatment, especially when serious exhaustion has already occurred before medical aid has been sought.

Treatment of Complications.—If the case is brought promptly under treatment and is managed along the lines indicated, it will rarely be necessary to treat unusual complications. In all cases, however, one must be on the lookout for symptoms referable to the kidneys, the lungs or the brain.

With free elimination maintained by irrigation of the bowels, renal congestion or actual nephritis are of rare occurrence. The action of the kidneys, however, should be watched and, if marked diminution in the quantity of urine excreted is observed, a specimen should be obtained for examination.

At times a patchy congestion of the lung or actual bronchopneumonia may be a complication of the severer cases. As a rule, it is rather insidious in its onset and may be detected only by careful routine examination. For such cases counterirritation of the chest by amber oil or a turpentine paste, conjoined with cardiac stimulation with alcohol, digitalis or ammonia will usually prove effectual, except in the neglected septic cases, in which the pneumonia is only a feature of impending dissolution.

In the same way, in the cases of severe toxemia, cerebral symptoms may become a controlling feature. While true meningitis may occur, the cerebral symptoms are often attributable to toxic irritation of the meninges or to the effects of an unrecognized uremia.

These conditions, of course, demand treatment along general lines. Much can be done, however, to prevent these severer complications by prompt and rational treatment in the early stages of the intestinal disease.

THE SUMMER DIARRHEA OF CHILDREN.*

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Summer diarrhea is an unfortunate term, as it means nothing specific but is used to include all the forms of acute diarrhea that children fall a victim to during summer. It is too broad a subject to be treated of fully in this short paper, so I shall confine my remarks to the most important features of the more serious forms of diarrhea, which include acute gastro-enteric infection, cholera infantum and ileocolitis.

As to the exact cause of these diseases we are as

yet very ignorant, but we know this much, they occur during hot weather and are more prevalent in overcrowded and unhygienic surroundings. They also occur principally in bottle-fed children, and there is little doubt that improper foods and improper feeding are the prime cause in the great majority of cases. That these diseases are due to specific micro-organisms there is little question, but as yet we are not satisfied what these organisms are.

As to the exact pathology of these diseases we know little, and if we did know more, it would be of very little use to us in their treatment, for it is simply impossible to make a differential clinical diagnosis. In acute gastro-enteric infection we find on autopsy nothing beyond a slight congestion or hyperemia and perhaps a little thickening of the mucous membrane, and nothing to account for the serious and so often fatal symptoms observed during life. It is the same way in cholera infantum, there is simply a superficial congestion and often the gut has a washed-out blanched appearance. In ileocolitis we have a real lesion in the intestine, a decided ulceration of greater or less severity in the lower small intestine and in the colon.

The symptoms of the serious forms of diarrhea are too familiar to all of us to need repeating here, for any man who has observed a few cases has a lasting impression made on his mind. I would like, however, to say a word in regard to the symptoms of cholera infantum. It is a common error with some physicians, as well as laymen, to call all serous diarrheas cholera infantum. This should not be so, for cholera infantum is a very clearly defined disease so far as symptoms are concerned. Any man who has ever seen one case should never forget it. It is one of the most serious of all diseases among children, and is due to some active toxic agent. The great prostration and rapid loss of flesh, together with the incessant vomiting and purging of a clear serous fluid, are the characteristic symptoms of cholera infantum. In ileocolitis there is often blood and pus in the fecal discharges, and there is a great deal of tenesmus and pain, while in gastro-enteric infection there is a characteristic greenish tinge to the stools, together with mucus, but rarely any blood.

In the treatment of summer diarrhea the average medical man has his own well-defined routine ideas, but we should not be content with our present knowledge of this subject, for, judging from the enormous mortality from this disease at present, we still have a great deal to learn about it.

There is no other class of diseases in which preventive treatment can do so much. We cannot properly treat this disease unless we look at the conditions which produce it. The seat of the trouble is in the gastro-enteric tract, and in our management of healthy children we should at all times see that this tract is kept in a normal healthy condition, and this cannot be done unless we pay strict attention to the feeding of all children that come under our care, whether they be breast-fed or bottle-fed. It is not only necessary that a child should be properly

*Read before the Alumni Society of the Medical College of Virginia, Richmond, Va., May 8, 1902.

fed during the hot summer months in order to prevent diarrheal diseases, but it should be fed properly all the year around. If a child's digestion is overtaxed during the winter months, we shall see signs of it as soon as hot weather begins. The great majority of cases of diarrhea is of the fermentative class, and the slightest indigestion will often start up fermentation and perhaps a serious diarrhea unless taken in time.

There is no question about the fact that much of this diarrhea is preventable, and it is as much our duty to use all possible means to prevent it, as it is to try to cure a patient when we are called in to treat the same. Dietetics can only be learned through clinical experience, and every man who does general work should try to familiarize himself with the best methods of feeding children, if he is going to practise among them. The average man is very lax in his attention to this part of his work, and, instead of giving explicit instructions to mothers and nurses, he leaves the feeding of the child entirely to their discretion and judgment. It should be remembered that a breast-fed child can, by irregular and too frequent nursing, be as easily upset as a bottle-fed child. I cannot attempt to go into infant feeding here, for it would make this paper too long. The treatment of the great majority of these diarrheal diseases is simply dietetic if seen at the beginning. Many a case is prolonged and aggravated by persistent and improper feeding.

In every case of diarrhea I am called to, the first thing I direct is to stop the milk at once, whether breast or bottle, and then I give a purge to clean out the canal, even if there has been profuse purging. I usually give castor oil if the stomach is not too irritable, as castor oil is quick in its action and also soothing to the inflamed mucous membrane. If the stomach is irritable I give calomel in small broken doses, or if there seems much acidity in the stools I give the old fashioned mixture of rhubarb and soda. I withhold all food for six to twenty-four hours according to symptoms, and give abundantly of water, and if there is much prostration I give brandy well diluted with water. After the intestinal tract has been thoroughly cleaned out and the symptoms have subsided to some extent, I begin and give as a food albumen water (very weak) perhaps a weak broth, preferably chicken. Or in some cases I give some of the liquid concentrated beef foods, such as liquid peptonoids or panopeptone, well diluted with water. I withhold all milk until all acute symptoms have passed, and this is usually from a few days to a week. I never give any milk until the fever has subsided. If the temperature remains up after the acute stage has passed this is a bad indication and shows some serious lesion of the intestine. The temperature in this disease should be watched as closely as in any other acute disease.

The only thing in the line of drugs I have found useful is bismuth in some form—either the subnitrate or subgallate. I have obtained excellent results with each. I use the subnitrate in large doses, 10 to 20 grains, every two or three hours, and the subgal-

late in doses from 3 to 10 grains, every two or three hours, in emulsion always. The great majority of my patients get along with no other drugs whatever, but if there is much pain and restlessness and a great deal of tenesmus I give opium in some form, preferably paregoric, as it is rapidly absorbed and at the same time stimulating. I use opium only when positively indicated and always use it alone and never put it into any so-called diarrhea-mixtures, to be given after each action.

I rarely ever find occasion to use any other drugs than the ones above spoken of. I have tried the various antiseptics and astringents so often recommended, but I find them of little or no value and in most cases positively harmful.

The nausea in these cases is often very persistent, but I find that if everything is withheld from the stomach for a few hours the nausea usually disappears; however, if it does not, I give an abundance of lukewarm water, let the child vomit it and in this way wash out its own stomach. Nothing is so good for nausea as absolute rest from everything. It is rarely ever necessary to use the stomach-tube to wash out a child's stomach for nausea.

Irrigation of the colon, in the treatment of diarrhea, was very much in vogue a few years ago, but from what I can learn it is now not so much employed as formerly. The reason is plain, I think. It only does good in a certain class of cases, and often acts more to exhaust the child than anything else. In cases of colitis I have seen good results from irrigation with cold normal salt solution or sodium bicarbonate solution (one ounce to one quart of water).

One thing that should be insisted on in all cases of diarrhea is absolute rest in the recumbent position. Rocking is bad for any sick child. Do not allow the mother or nurse to jump the child up and down in order to quiet it or to carry it in the upright position over her shoulder.

Opium is a drug very much abused in the treatment of diarrhea. It has its field, but it is limited. In my opinion it should never be used by enema in young children, for you don't know when it is going to be absorbed and you don't know when to repeat it. I never could see the rationale of giving castor oil and opium together, or opium and calomel together. You lose the good effects of both drugs. Opium does more harm in many cases of diarrhea than can be conceived of. It checks secretions and stops peristalsis and this is seldom what you want, for the treatment of diarrhea in almost every case is eliminative; you want to get rid of the poison.

In cholera infantum drugs and food by mouth amount to little till the acute attack is over. In the extreme prostration, active treatment should be instituted. The surface temperature should be restored by hot applications, and enemata of hot salt water should be given. Hypodermic stimulation is needed. Morphine and strychnine and brandy act well here. The system needs fluids and needs them badly, and it is often necessary to give the normal salt solution under the skin, for there is no disease, the poison of which abstracts so much water from

the system in so short a space of time as does that of cholera infantum. After the acute stage is over cholera infantum should be treated as other forms of diarrhea.

There is nothing in medicine more difficult than to know what to feed some of these patients on, especially the serious and long continued cases. After the acute stage is over, I usually resume the milk diet. I begin with a very dilute mixture and usually predigest it. If this is taken well, I increase the strength of the milk as the child grows better. In some cases it makes no difference how exact and careful we are in preparing and giving the milk, the symptoms seem aggravated and we have to stop the milk. Barley or rice water may be substituted for it, but children, as a rule, tire of barley and rice water very soon; however, if a little beef juice is added to it, they take it better.

Most people think that if the child is breast-fed the question of diet is settled, but in my experience this is not the case, for I have experienced the greatest trouble in feeding a breast-fed child during an attack of acute diarrhea, when you need a solution of milk very weak in fats and proteids. It is impossible to regulate the quantity and quality of food from a breast and, as a rule, the mother is anxious and worried about her child's condition and her milk is no suitable article of food for any child. I do not hesitate to take the child from the breast and let the mother use a breast pump till all acute symptoms are over.

There is one thing more I should like to call attention to and that is the idea held by some that fresh air will cure these cases regardless of every thing else. The importance of fresh air—either mountain or seashore—cannot be overestimated, but fresh air will not cure any case so long as the patient is improperly fed or treated by drugs. I have seen many a patient brought to the seashore and the mother had the idea then that everything possible had been done for the child, but the child gradually grew worse, so she had determined to go back home, because the place did not agree with her child; however, before leaving she happened to come by my office to ask me why the seashore did not agree with her child. Upon investigation I found the child taking perhaps a half dozen nauseous drugs, as a rule some form of opium, and usually some form of food entirely unsuited to its condition. I discontinued the drugs and changed the food, and gave the little ones a rest, and often the rapid improvement was astonishing.

In closing, there are a few points I wish especially to impress upon you: First, that summer diarrhea is to a great extent a preventable disease, and it is our duty to do all we can to instruct the mother and nurse in the care and feeding of children. Second, in our treatment of summer diarrhea we should always stop the milk, give a purge and then carefully regulate the diet for a few days even in the simplest and mildest cases, and in this way we will prevent many a case of the more serious forms of diarrhea. The treatment of the first few days is the most important in all cases, and even the

simplest cases should never be neglected under the delusion that it is natural for a teething child to have diarrhea.

THE TREATMENT OF SUMMER DIARRHEA IN YOUNG CHILDREN.

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No one having as yet suggested a more scientific name for the diarrhea so common in young children during hot weather, the term "summer diarrhea" still holds its place in medical nomenclature. In discussing the acute enteric diseases of infancy, Morse (1) admits that, in the great majority of cases, it is impossible to tell whether or not organic changes have occurred in the intestines. In some cases such changes surely exist. The main symptoms of this condition are very frequent bowel movements, fever, vomiting and pain. In a series of over 600 cases in my service in the medical dispensary of St. Christopher's Hospital for Children, during June, July and August, 1901, I found diarrhea in every case; fever in over 80%, vomiting in about 50%; and probable pain in over 30%. While other symptoms occurred, they were by no means common. Besides, an eruption, stomatitis, pharyngitis, rhinitis, bronchitis, bloody stools, etc., were often noted as complications.

The undoubted cause of the condition lies in the intestinal contents. Though this condition may vary in seriousness according to individual idiosyncrasy and to the general physical condition of the child, it may be stated as a general rule that the grade of severity of the condition bears a direct relation to the length of time which elapses before the entire intestinal contents, the cause of infection, have been evacuated. Not only is the condition on this account grave when untreated, but organic intestinal changes are sure to follow in time, with severe intoxication. While breast-fed infants are often affected, the condition is, in them, easily controlled, simply by stopping milk temporarily.

Before discussing the question of drugs, it is important to recall several items of general hygiene, of value in the prophylaxis of summer diarrhea. Infants need a daily morning bath, especially in hot weather, when a sponge-bath may often be given in the evening besides. They should be kept out of doors continually in good weather, when possible, preferably in a coach, protected from strong winds. As a general rule the amount of food taken by infants should be diminished somewhat during the summer. If breast-fed, the length of the feedings should be shortened; if bottle-fed, a smaller quantity should be allowed. Older children, from 18 months to 3 years, should have their diet-list decreased to only bread and milk, except for dinner, when more may be given. Water is necessary for the maintenance of good health, and nurses should

(1). J. Lovett Morse, Archives of Pediatrics, June, 1902, page 446.

be reminded to offer children small amounts of boiled water frequently.

The first and by far the most important treatment of summer diarrhea is absolute withdrawal of food, no matter what the infant is taking. All milk and other foods are to be stopped, and a diet of barley water ordered, to be given every 3 hours for children over 3 months. Albumen water is not nearly so satisfactory in most cases, though it may be effective when barley water, for any reason, disagrees. This general rule may be varied slightly for older or large, healthy children. In such cases I suggest that all food be stopped except milk, which, if the child particularly wants it, may be given every 3 or 4 hours, with lime water, if vomiting does not persist. Should vomiting persist, however, a return to absolute barley water diet will be necessary. This method has proved successful, normal health reappearing after a few doses of calomel. On the other hand, in very young infants or those who are severely prostrated, panopeptone or liquid peptonoids, in doses of 15 to 30 drops, added to the barley water, acts as an excellent and often necessary stimulant. Brandy and whisky are not to be given, except in special cases. Nor should milk be given again until the bowel condition warrants it, at least 24 hours, most often 48 hours, rarely longer than 3 to 4 days, after its withdrawal. By that time milk with lime water can usually be begun.

It is well to tell the mother to keep the child in its coach out of doors if possible, if not, in the largest room she has, and to keep the windows open. In severe cases a change of air is often life-saving. She should be shown how to sponge the child off, and this is ordered 3 to 4 times a day when fever persists. She is also told to note the number and character of the bowel movements, and is cautioned against giving any milk until permitted by the physician. When milk is started again, either pure or modified, it is given in gradually ascending amounts, if each is well borne. When the child has been on a formula before illness, a lower formula is first ordered, but this may be raised soon to what was formerly digested.

A few years ago the practice of irrigating the colon and washing out the stomach of all these infants was general. Realizing that this was overdone, physicians have now gone to the other extreme, hardly using enteroclysis sufficiently. It is immediately indicated when great prostration exists, with evident intoxication. It is always of service when the child has but infrequent stools, which contain blood, much mucus, etc. But it is usually unnecessary to repeat this proceeding more than once, the next day. Gastric lavage is indicated when vomiting tends to persist, and in serious cases. It should not be forgotten, too, that enteroclysis with normal salt solution at 75° or 80° is a means of reducing hyperpyrexia; while a similar enema at 100° or 105° is excellent, should collapse occur. Also, whenever erythema or eczema intertrigo results, not powder, but sweet-oil or vaseline will be the most efficacious local application.

But few drugs are necessary. As vomiting was

noted in over 50%, calomel was most frequently given. This is best prescribed in doses of 1-10 grain, in combination with 1/2 grain of salol and one grain of sodium bicarbonate, every half hour or hour for 10 doses. When there is no vomiting, from one to 4 teaspoonfuls of castor oil are given. Of 100 cases in which this treatment was followed, recovery resulted in 97, in from 3 to 5 days, without any indication for other medication. In but 3 cases was it necessary to give astringents to check the diarrhea. It is most probable that many more such cases might have been collected, had the mothers come back to report recovery. If frequent bowel movements persist 5 days, bismuth subnitrate is indicated, in doses of from 10 to 20 grains every 3 hours, best combined with 1/2 grain of salol. For I have noted that fever shows a tendency to persist when these small doses of salol are omitted. Opium should only be given later, or when marked nervous symptoms develop. It is best to give the deodorized tincture, in 1/4 to 1/2 minim doses once in 3 hours, if necessary, or Dover's powder, 1/4 to 1/2 grain, as Kerley (1) does. During convalescence a few drops of tincture of nux vomica will often be of service.

Up to last year it was exceedingly difficult to impress upon mothers the fact that, as soon as summer diarrhea begins, the best treatment is starvation. But now that the Health-Boards of the large cities distribute hygienic regulations for the care of babies and dispensary physicians continue to reiterate these facts, knowledge is gradually supplanting ignorance among the poor. That, with the cool weather so far this summer, has caused a marked diminution in the number of cases of summer diarrhea. As this knowledge becomes yet more widespread and general practitioners cease overdressing infants, the result will be an even greater decrease in the mortality from summer diarrhea.

THE MENTAL DISORDERS OF CHILDREN.

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(Continued from page 92).

Little by little, mental impairment becomes more marked. The thoughts gradually become disordered and disconnected. The patient passes into a condition of mutism. In other cases, again, speech remains quite good, though the impaired quality of thought is made manifest as soon as the patient begins to talk. Unsystematized delusions or delusions that are poorly systematized may also be noted; in older children delusions that are comparatively well systematized may be observed. In the initial period, which lasts for months and sometimes for a year or more, the emotional attitude is one of continued depression and it is needless to say that during this phase of depression the delusive beliefs, whether they are systematized or not, are of a painful character. There is also a striking diminution

(1). C. G. Kerley, Archives of Pediatrics, June, 1902. page 410.

of thought, an absence of spontaneity and a paucity of ideas. Emotionally the patient becomes indifferent to those about him. He is usually quite irritable and in numerous ways reveals a more or less marked loss of self-control. After the affection has lasted for some time, for many months or longer, elements of exaltation and expansion gradually make their appearance. The patient indulges in causeless laughter, in boisterous conduct, in physical restlessness. He poses, he declaims, is childish, silly, theatrical and often there are signs of automatism, the patient remaining quietly in such position as he happens to be placed, or suddenly stops in the act of carrying out a gesture and assumes for the time being a more or less fixed attitude.

Somatic signs of ill-health are, of course, present. The patient often sleeps very little, has difficulty in falling asleep or the sleep is broken and disturbed by unpleasant dreams. Often, in the early developmental period, the child complains of not feeling well, complains of headache, of unpleasant sensations about the head or of being tired. It looks bad, its circulation may be depressed and there may be coldness of the hands and feet or some lividity of the extremities. It is weak, lacks its customary spontaneity and energy, ceases to play, is listless and indifferent. In other words, it is passing through a neurasthenic or, more properly speaking, a neurasthenoid stage. During the period of depression there may be decided refusal of food, though later, as the period of expansion is reached, the patient may manifest an abnormal appetite. The reflexes are, as a rule, exaggerated. This is true of all the tendon and muscle reflexes. The pupils are very frequently dilated. In young girls menstruation is not established, or, if established, becomes scanty, irregular or ceases altogether. Generally there is decided loss of weight during the period of depression; during the subsequent phase of expansion the body weight, as a rule, increases.

The course of dementia præcox is generally a gradual one. In the larger number of cases, unfortunately, it ends in permanent mental loss, in marked dementia. In some cases decided remissions make their appearance, which are of considerable duration. In others again the progress of the disease is permanently arrested, and in such cases the mental condition may be one of partial impairment, marked or relatively slight in degree. In many of the cases in which a remission occurs, a partial re-education of the patient is possible, so that he can acquire a knowledge of light occupations, such as gardening, simple sewing or fancy work and light household duties. In a comparatively limited number of cases, a more or less decided recovery ensues.

The symptoms of dementia præcox vary, of course, greatly in different cases. As Kraepelin has pointed out, they may conveniently be grouped into three clinical forms; in all of them we have present, first, the elements of a dementia, and second, the elements of depression and expansion. In one form, described by Kahlbaum and Hecker

under the name of hebephrenia, we note that the psychical factors of the stage of depression or of the stage of expansion are very poorly defined. There is present mental enfeeblement, but the initial period of depression does not attain a decided or profound depth. The picture of melancholia may be simulated, but the emotional pain falls, as a rule, far short of the intensity observed in that disease. Hallucinations of hearing are very frequent, though their presence cannot always be demonstrated. Hallucinations of vision and other senses are also observed. Delusions are present in a large number of cases, but they cannot be elicited in all. They are always of a transient and fragmentary character and bear no relation to each other. They are never, or very poorly, systematized. During the period of depression they are necessarily of a painful character, associated with fright, punishment, torture, persecution or self-blame, while in the stage of expansion they are of a directly opposite character and are associated with wealth, power and importance. In keeping with the phase of depression, the phase of expansion attains in most cases a merely moderate height.

Occasionally, especially in very young hebephrenics, delusions, as such, cannot be said to exist; the stage of depression being mainly characterized by a group of neurasthenoid and hypochondriacal symptoms and a painful emotional state, the child giving no outward sign of being delusional. Indeed, the initial stage is in some cases of hebephrenia entirely overlooked, the child being merely regarded as having grown lazy, stupid and indifferent. Similarly, the stage of expansion may be mainly characterized by physical exuberance, boisterous conduct, laughing, clapping of hands, extravagant gestures, tossing, tumbling, destructiveness. Dementia, more or less marked, progressive or interrupted by remissions, always dominates, we should remember, the clinical picture.

In the second form of dementia præcox, termed by Kahlbaum katatonia, we have present, as in hebephrenia, dementia and the elements of depression and expansion; to these are added a third factor, namely, special motor disturbances, convulsive phenomena, spasm of muscle, fixation of gesture, automatism, cataleptoid attitudes. The phases of depression and expansion are more pronounced than in hebephrenia—the altitude of the wave is greater. The intellectual factors of the dementia also appear to be somewhat more pronounced; the delusions, though still disordered and not systematized, are, notwithstanding, more pronounced and better defined. Indeed, they may approach the condition which we find in the third form, namely, that to which Kraepelin has applied the term dementia paranoides.

Dementia paranoides is characterized by dementia with marked and well-defined phases of depression and expansion, together with well-formed delusions, more or less systematized. As in the paranoia of the adult, the tendency to fixed and systematized delusions becomes the most prominent feature of the disease.

It is not always possible to draw sharp lines of

distinction between the various forms of dementia præcox; thus cataleptoid phenomena, transient in character, may be observed in a case otherwise deserving to be classed under hebephrenia, and slight degrees of automatism may be observed in cases otherwise coming under the head of dementia paranoides. Notwithstanding, the differentiation between the various forms holds good for the great mass of cases. As Pickett¹ has shown, in the younger patients dementia præcox is apt to assume the form of hebephrenia; in those slightly older, the form of katatonia; and in those still older, the form of dementia paranoides. This fact stands in direct relation with the greater intellectual development of the older patients.

It should be added that the prognosis differs somewhat in the various forms. According to Kraepelin, in hebephrenia about three-fourths progress steadily to decided dementia; about 17 per cent. terminate in moderate dementia, while 8 per cent. make apparently a good recovery. In katatonia the prognosis is somewhat more favorable, 13 per cent. making a good recovery. This estimate, however, is apparently based exclusively upon asylum cases. In a not insignificant number of patients suffering from undoubted hebephrenia the symptoms are of so mild a character as never to necessitate the commitment of the patient to an institution. In some of these cases the degree of the final dementia is but slightly marked, while in others still the affection terminates in a more or less pronounced recovery. Katatonia, it should be added, may come on much more rapidly than hebephrenia—indeed, suddenly—and it is also more frequently interrupted by remissions. Dementia paranoides offers the most unfavorable prognosis of all.

It is fitting that we should pause to consider briefly the little that is known of the etiology of this important and serious affection. The most prominent etiological factor of the development of dementia præcox is heredity. According to Troemner, hereditary factors are present in 70 per cent. of all of the cases. That a history of hereditary neuropathy can be obtained in a large number of cases there is no doubt, and my own experience would indicate an even larger percentage. Among exciting factors of the disease, illness, shock and injury are not elements of moment. It is not improbable, however, that overwork in children, especially overstudy, mental overstrain at school, is occasionally an exciting cause of no small importance. We are all of us aware of the tremendous structural and functional changes that take place in the organism at the time of puberty, and it is not surprising that, at this period, mental and nervous overstrain should act deleteriously.

Many of the symptoms presented by dementia præcox suggest strongly that the disease is the result of an auto-intoxication—of a poison elaborated perhaps by one of the ductless glands, by special tissues or perhaps the result of some profound modification of the general metabolism of the body. However, we are to bear in mind the necessity of

care and observation of children as they approach the years of puberty, and especially the avoidance of nervous overstrain, fatigue or excitement. I am quite satisfied that in many cases great damage is done by subjecting boys and girls to excessive pressure at school at this most important epoch of their lives. Especially is the danger great in children of a neuropathic heredity. In the latter abnormal precocity sometimes invites the very excesses in education which are so dangerous. While precocity and genius may in themselves be perfectly normal phenomena, we should bear in mind that quite frequently they are only the surface showings of a neuropathic constitution. Especially is this the case when they are attended by the symptoms of a disturbance of health neurasthenic in its nature, and when in addition the child gives evidences of an unusual tendency to introspection, to reserve, to quiet; when it reveals profound movements of the emotions out of all keeping with its years, when it possesses in an abnormal degree the poetic and artistic, the depressive and expansive temperament.

Not all cases of dementia præcox, especially of hebephrenia, are recognized by parents or, for that matter, by physicians. In many instances the symptoms of the affection are not pronounced and, indeed, never reach so high a degree of development as to make the recognition of the mental disease inevitable. A boy or girl, for instance, instead of being regarded as ill, is merely looked upon as having become lazy and stupid, and now physical punishment and disgrace are added to the misfortune of the patient. If now the patient runs away from home, is captured and repeats his attempts at flight, he is simply regarded as bad and incorrigible and is finally committed to a reformatory. There can be no doubt that some, at least of the so-called incorrigible children, are in reality cases of hebephrenia. This is likewise true of youthful tramps and vagabonds. Vagabondage in adult life is often merely a continuation of early wanderings from home—an expression of the tendency to run away observed in the development of hebephrenia. Two other conditions, masturbation and prostitution—especially early prostitution—are both very frequently the result of hebephrenia; and this is also true of other forms of moral obtusion and criminal tendency.

In the beginning of this address I drew a sharp distinction between idiocy and imbecility, on the one hand, and insanity in children, on the other. As in many other departments of human knowledge, it is found that sharp distinctions, while they serve to express general truths and are in the main correct, are not absolutely so. Thus, we find that in dementia præcox there is a great and almost overwhelming factor of heredity—a factor which justifies the assumption that in dementia præcox the defect is organic—not grossly organic, but at least such a modification of the structure of the nervous system as to predispose it to degeneration. When we add to this the fact that many cases of dementia præcox present anatomical peculiarities significant of arrested and abnormal development, we see that,

1. Journal of Nervous and Mental Diseases, August, 1901.

after all, the gulf between idiocy and imbecility, on the one hand, and dementia præcox, on the other, is not as great as we would at first sight suppose.

Among the specific forms of insanity met with in the adult one only is deserving of mention as occurring in childhood, namely, paresis. Juvenile paresis, I need hardly say, is an affection which is exceedingly rare. Notwithstanding, quite a number of cases have been placed on record in recent years. Inherited syphilis appears here to be the essential factor. The disease does not differ in its important features from that observed in the adult, save that the mental symptoms are usually those of a simple and uncomplicated dementia. This fact is in keeping with what we have already noted in other forms of insanity occurring in childhood, namely, the absence of elaborate and well-defined delusions, such as are dependent upon a mature mental organization.

Hysterical and epileptic insanities should perhaps be mentioned, although their occurrence is excessively rare in childhood. They do not merit a special description, as the symptoms are essentially the same as in the adult. In the first we have present, in more or less marked degree, the well-known stigmata of hysteria, while in the other we have a history of epileptiform attacks, typical or more or less modified in character.

The form of mental disturbance most frequently supervening in hysteria is that of delirium, occasionally accompanied by great excitement. At times more or less prolonged confusion supervenes. In some patients a persistent change of character, with more or less marked dementia, is the outcome. This result I have never observed except in adults.

When insanity supervenes in epilepsy, it manifests itself in attacks of delirium, usually of short duration, though sometimes prolonged. Occasionally it is mental confusion and stupor that is observed, and in cases that last long enough and in which the epilepsy is very severe, a more or less confirmed dementia is the outcome. Slowing of the mental faculties, a mild dementia, as we all know, is not an infrequent accompaniment of the insanity of epilepsy.

A discourse on the mental disorders of children would hardly be complete without some reference to the subject of treatment. It would not be in place, however, to discuss the care and training of feeble-minded children; here therapeutic methods prove of comparatively little value, except in the single instance of cretins. I need only allude to the enormous value of thyroid extract in the treatment of myxedematous idiocy. The results that have been achieved in this field of late years are so brilliant and so well known as to make comment unnecessary.

In the treatment of the insanities of children we are forced to depend mainly upon the application of general physiological and hygienic principles. Discouraging as the outlook is at first sight, much is frequently accomplished. I have occasionally observed brilliant results in the neurasthenic insanities of children; and in a not insignificant number of

cases of hebephrenia and katatonia these measures are followed by arrest in the progress of the symptoms, and at times by actual recovery. Our object should always be to force up the nutrition by all possible means—rest methods, partial or complete; massage; full and, if necessary, forced feeding; exercise; bathing; out-of-door living. Certain it is that a percentage of cases yield to these measures. Tonics may also be employed as they are indicated, and this is also true of drugs that regulate the various functions. In periods of excitement, sedatives and narcotics may be given, but they should always be employed in a minimum amount, never continued for too long a period and varied from time to time. In cases which become stuporous, or in which depression becomes very marked, it is perfectly justifiable to make use, for a time, of thyroid extract. Occasionally the thyroid extract proves of benefit though it must be admitted that in the larger number of cases it has thus far failed to yield a satisfactory result.

We should not forget also that in a certain number of cases dementia præcox ceases to progress, and in these the patient may be left in a condition in which some retraining and re-education is possible. Besides, in a small number, the affection terminates in final and spontaneous recovery. With such facts before us, no case should be abandoned as hopeless, but should be given the benefit of all the measures at our command.

The treatment of mental diseases, both in children and adults, is unfortunately still limited to the application of general principles. Our methods still lack the precision and special direction which it is hoped a more intimate acquaintance with the pathology of these affections will give. Such a knowledge is the promise of the future.

BOLNITCHNAIA GAZETA BOTKINA.

March 6, 1902. (Vol. XIII, No. 10.)

1. Cardiac Asthma and Affections Allied to it.
L. V. POPOFF.
2. Scientific Principles Underlying Hospital Régime and the Acting Legislature Concerning the Civil Hospitals in Russia. S. S. VIRSALADZE.
3. On the Influence of Disinfection by Steam on Some of the Physical Properties of Clothing-material.
P. A. PATSANOVSKI.

1.—Will be abstracted when concluded.

3.—Patsanovski investigated the effect of steam under pressure on the various materials employed for clothing and arrived at the following conclusions: (1) Under the influence of live steam at a temperature of 114-115°C., for 15-45 minutes, the thickness of the material is increased, sometimes more than twice. (2) The weight of a square centimeter is increased. (3) The specific gravity is in the majority of cases diminished, i. e., the cloth becomes less compact and tears more readily. (4) As to the effect on color, light gray and light blue are the colors most affected, both changing to yellowish-brown. (5) The external appearance of the cloth changes to a certain extent. The cloth loses its lustre and smoothness. [A. R.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8.

VOL. X, NO. 5

AUGUST 2, 1902

\$5.00 PER ANNUM

The Mayor's Veto.—Mayor Ashbridge of Philadelphia has had the grace and judgment to veto the bill for the purchase of the "Cannon-Ball Farm." It is safe to say that His Honor has never performed a public act that has received such wide approval.

As we announced in our last issue, we have had the proposed site inspected by a highly competent sanitarian, in order that we ourselves, as well as our readers, might have a more reliable basis of judgment than that afforded by the political critics and opponents of the present administration. After mature reflection we have decided to publish this paper by Dr. Leffmann, even though the occasion for criticism has passed by with the Mayor's veto. There are several reasons that influence us to do this.

In the first place, Dr. Leffmann's report is a good example of what such a report should be. It is a dispassionate statement of the conditions of the proposed site as he found them. There is no disposition to exaggerate evils, and there is a distinct tendency to counteract the exaggerations of some of the critics of the measure. Hence we believe the report is an unbiased and judicial one and that it shows all the more conclusively how entirely unfit the place is for the site of a hospital. The importance of this showing is that it reveals to the medical profession of this city the lack of judgment of those of our city councilmen who could be induced to consider for a moment without the advice of experts the selection of such a site for a hospital for the city's dependent sick. From this point of view Dr. Leffmann's paper has a value that is not diminished by the Mayor's veto. It suggests to every physician (although its author nowhere expresses such an intention) the grave question: Are councilmen safe men to be entrusted with such a duty without the advice of experts? Is there any guarantee, unless they seek competent advisers, that they will do better in the future than they have done in the past? Dr. Leffmann's suggestion of two Municipal Hospitals for Philadelphia is worth serious consid-

eration. This city covers such a wide territory that inconvenience is bound to arise from *one* hospital wherever it may be located.

Finally, Dr. Leffmann's suggestion of a possible danger of conveyance of the disease by insects from the hospital to persons outside of it, is in line with our increasing knowledge of the rôle of insects in the propagation of disease.

Danger from the Municipal Hospital.—A very exaggerated popular alarm is arising in this city about the supposed dangers from the Municipal Hospital, or hospital for contagious diseases. One thing is certain: This hospital must be located somewhere; and if it is to be removed from its present site, it must be put on another. That there is any grave danger to the surrounding population, if such a hospital is properly conducted, is somewhat of an open question. We have never heard that smallpox raged in excess around the present hospital.

The exact mode of conveyance of smallpox is practically unknown, although that the disease is highly contagious in the ordinary sense is not to be doubted. It has been proved not infrequently, however, that modern methods of sanitation can do much to control or even eradicate the disease from a town or community. This being so, there is every reason to believe that in a well-conducted smallpox hospital the avenues of contagion could practically be controlled. In the city of Cleveland the health authorities claimed that they controlled the epidemic by house-to-house and person-to-person inspection and sanitation. In Philadelphia a thorough house disinfection has again and again proved efficient.

While caution is a good thing, popular prejudice and popular panic are very bad things and should not be allowed to control this important public measure.

Diagnosis by Means of the Serum of the Blood.—The importance of this subject and the vast amount of research work which has been done in this field

lend a particular interest to the paper of Dr. Joseph Sailer which appears in the *Proceedings of the Pathological Society of Philadelphia* for June, 1902. Dr. Sailer has presented a critical study of the literature and places the subject before us in its present status clearly and forcibly. He calls attention to the fact that some five years ago hematologists began to realize that the study of the formed elements in the blood, while interesting and of considerable value, did not indicate changes that were absolutely pathognomonic of a great number, if any, conditions of disease. They sometimes contributed to a diagnosis, at other times were misleading, and there were various manifestations in the blood which were not indicated by the study of the formed elements. It was the study of immunity which led to the investigations seeking to determine the changes in the blood that rendered it capable of producing disease or of preventing its occurrence. The chemical side of the problem has proven to be most important and a study of the physiological chemistry of the blood has a decided bearing on the diagnosis of disease. Dr. Sailer's paper deals with the serum reactions which seem to be definitely established, and his discriminating review of the subject of agglutination can be heartily commended. Of the large number of theories which have been suggested to explain agglutination none has as yet been established by a sufficiently complete series of observations to enable it to obtain general acceptance. In regard to the hypothetical substance by which agglutination is brought about, Sailer states that at present too little is known about it, particularly of agglutinin, to enable us to draw any conclusions regarding this substance, save that in its reactions to heat it bears some resemblance to ferments and that at least two substances are necessary in order to manifest this action. He closes by quoting the advice of Gruber who refrains from giving this substance any name that presupposes a separate entity. We commend Dr. Sailer's paper to those of our readers who are interested in this important subject as an admirable and concise review of the work that has already been done. In looking over the numerous studies to which these problems have given rise, one cannot but be impressed with the possibilities of this interesting field of research.

Mussel Poisoning.—The question of poisoning by mussels has been taken up recently in a very elaborate and painstaking study by Jorgen Thesen (*Arch. f. experim. Path. u. Pharmak.*, Bd. XLVII, Hefte 5 und 6). The forms of poisoning due to mussels are: The mild, erythematous type, in which there is

comparatively little disturbance, and which seems to be quite as much the result of individual idiosyncrasies as of any poisonous property in the mussels themselves; the somewhat more severe intestinal type, which may show comparatively mild symptoms or may exhibit very active disturbance of the gastro-intestinal tract and which closely resembles the toxic gastro-enteritis due to a host of other causes; and, most important of all, because of its gravity, the paralytic type, which is characterized by acute peripheral paralyses, closely resembling those due to curare. It is this latter form of poisoning that Thesen has investigated and the nature of which he discusses. These three forms of poisoning cannot be clearly separated; but, as a rule, the three types of symptoms are most prominent in the different classes of cases, respectively. Mussel poisoning has been known for as long as 125 years, but the actual description of the condition has been comparatively recent and the knowledge of the subject that has, so far, been furnished has been chiefly due to Virchow, Salkowski, Brieger and Max Wolff. The last three authors have contributed some interesting facts concerning the poison itself, Brieger's work particularly being well known in connection with his other work on ptomaines. Thesen's work shows that the poison which he found in the mussels in the harbor of Christiania is apparently the same as that found by Salkowski at Wilhelmshaven. It is a substance which is very soluble in water and alcohol and which is readily destroyed by heating with alkalies but which may withstand even high temperatures when in neutral or acid solution. It is not precipitated by platinum chloride. Thesen has also made the interesting observation that the poison is readily broken up by the action of bacteria, and that consequently, in studying it, some bactericidal substance must be added to the solution in order to prevent its destruction. He has not been able to convince himself that the poison which he has isolated is identical with Brieger's mytilotoxin. The most interesting parts of Thesen's very extensive and painstaking work are those which apparently demonstrate that the poison is not, as had been thought by some previous investigators, the product of an infection of the mussels or of pathological metabolic processes in them, but is rather due to their absorbing and retaining poisonous substances that are present in the water. He, at least, makes it quite conceivable that this is the case; for he found that, after adding curare, strychnine or an extract of poisonous mussels to the water in which he had placed nonpoisonous mussels, the latter acquired the same poisonous properties as the

mussels which were found to be poisonous when collected. He wholly disagrees with Wolff, who believed he showed that the poison could not be found preformed in the water. The other interesting point in Thesen's work, and one that has in it a strong warning note, is that, while he was led to examine mussels from a certain portion of the harbor because of eight cases that were observed in persons who had eaten mussels from this region, he found that those taken from the various portions of the large harbor were, in most instances, poisonous; that, in other words, this food, when obtained from quite widely separated regions, was likely to be, in many instances, very poisonous. It is, consequently, essential in regions in which mussels are used as food to determine, as far as possible, that there is no opportunity for the access of the poisonous substances to the waters in which the mussels live, and it is likewise of extreme importance that those who use this food should learn the circumstances under which mussels become poisonous and the methods of preventing the further cases of poisoning.

Psychiatry in America.—It is much to be wished that some of the younger generation of psychiatrists in this country would confine themselves in their writings to telling how much they themselves know instead of describing how little other and older persons know. In a paper read at the recent meeting of the American Medico-Psychological Association at Montreal, Dr. Louise G. Robinovitch read a paper in which she drew a comparison between the work done in European asylums and that done in American asylums. The comparison was altogether uncomplimentary to the American institutions and reads like a travesty. We are not surprised to learn from a foot-note by Dr. Robinovitch herself that the reading of her paper was "received with marked disfavor." It could be roundly criticised for poor taste, if for nothing else. We are quite convinced that American hospitals for the insane occupy as high a plane of efficiency as some of their critics. Some of these hospitals are doing good scientific work, and all of them are at least discharging the duty for which they were primarily instituted, i. e., the care of the insane. Questions of classification, on which Dr. Robinovitch lays such exaggerated stress, are justly not deemed of as much importance among us as the cure of patients. Her paper was merely academic.

We can only deplore, for their own sake, the strabismic vision of those students in psychiatry who can see nothing but what is admirable in

Europe and nothing but what is reprehensible in America. The only injury done is to their own influence.

Incontinentia Ani.—One of the most distressing conditions with which mankind is afflicted is that of incontinence of feces. When the mental condition is benumbed, an involuntary bowel movement stirs up to more emotion than a similar event in the case of an infant, but to the subject of an uncomplicated paralysis of the sphincter ani, a person otherwise in good health, the unhappiness, misery and wretchedness of such a condition is all but unbearable. It is the mental suffering and worry rather than the physical discomfort which harrasses the patients, and this is due not only to the disgust with which they regard themselves, but also because they are repugnant to society and are a burden to their relatives and caretakers.

To relieve such individuals and restore them to the community is a task which it seems few have undertaken. Excepting the suturing of a lacerated sphincter and the twisting of the rectal tube by the method of Gersuny we have read of no plan, until recently, of attacking these cases with the idea of restoring the retentive power of the lower part of the rectum.

In the *British Medical Journal*, October 20, 1900, Lennander, of Upsala, described a plastic operation for sphincteric incontinence, the steps of which are as follows: After making a horseshoe-shaped incision around the ischiorectal fossa the posterior part of the levatores ani and the anterior part of the coccygeus are dissected out, and the levatores ani separated from the coccyx and coccygeus, care being taken to avoid the nerves which supply the levator ani. The portions of the levator ani springing from the coccyx and coccygeus are brought forward and affixed to the rectum in such a way that they will compress the rectum on either side; and a portion of the glutei are separated from the sciatic ligament, the sacrum and coccyx and are brought forward and stitched together in the median line, anteriorly to the levator ani and the skin of the anus and posteriorly to the periosteum on the sides on the coccyx. These muscles form a strong horizontal beam for the pelvis and embrace the rectum posteriorly and laterally. By the simultaneous contraction of the levator ani and the glutei the rectum is compressed laterally and lifted upwards and forwards, the anterior and posterior walls also meeting. Three cases have thus been operated upon. In one the sphincter ani and part of the rectum had been destroyed by a phlegmonous inflammation; in the second incontinence followed a prostatectomy; in the third the lower rectum had been excised for

carcinoma. The first two were practically cured and the third markedly improved.

In November, 1901, Rushmore published, in the *Annals of Surgery*, an account of an operation which he terms anorectal transplantation. His patient had been gored in the rectum by a bull, and a number of operations had been performed to relieve the incontinence of feces which resulted. Rushmore excised the coccyx, separated the rectum from the surrounding parts as high as the peritoneum, and sutured the anus in the upper angle of the wound just below the sacrum. This maneuver formed a rectal pouch, the bottom of which was about 3 inches below the transplanted anus, and the posterior wall of the rectum was folded back on itself to form a thick valve just inside the anus. At the end of 2 months the patient's bowels would move once or twice in the morning and he would then be comfortable for the rest of the day.

Chetwood, in the *Medical Record*, April 5, 1902, reports a case in which incontinence of feces followed the goring of a steer. He dissected a band of muscular tissue from either gluteus muscle; these ribbons of muscle were passed around the gut and the ends fastened to the front. The patient regained full control of the bowels.

In lieu of the operations indicated above an artificial anus might be made in the inguinal region, separating the muscles as is done in the McBurney operation for appendicitis; this would certainly make the patient a much more desirable companion than if nothing were done.

The Negro Population of Philadelphia.—According to figures recently published, Philadelphia is having a large increase in its negro population. In 1870 there were 22,147 negroes in this city; in 1880, 31,699; in 1890, 39,371; in 1900, 62,613. In thirty years, therefore, the colored people have increased almost 3 to 1. This, of course, is vastly in excess of the increase of the white population. Philadelphia receives constantly a large migration of negroes from the South. Any one who hires colored servants in this city will soon observe this fact. A large proportion of such servants are from below Mason and Dixon's line. It is rather too much to say, however, that "another decade will see Philadelphia the center of the greatest density of national negro population." A white population of nearly 1,500,000 will make such an assertion look absurd.

The negro problem is not one of mere figures; it concerns hygiene, sanitation, education and criminality. The last eight men hanged in Philadelphia, in a period of about two years, have been negroes.

The same ratio in the white population would have meant about 186 white men hanged.

Dr. T. H. Jaggar, in his article on the West-Indian Volcanoes, in the *Popular Science Monthly*, appears to think that there is no mystery about the mode of death of the victims at St. Pierre. There is no need for calling in any unusual gas. "The people of St. Pierre were killed by steam, hot dust, falling stones, falling buildings, drowning, burial alive and burning." Surely all that was enough to kill anybody.

Mr. James A. Le Roy writes entertainingly in the *Outlook* on Health Problems in the Philippine Islands. He goes over much ground which has already been covered more or less in our columns. We merely wish to commend his article as a popular account of the situation. It will do something to open, or keep open, the public eye on the subject, especially when he notes that the death-rate in Manila has been lowered almost 50 per cent. since the American occupation. Now let us watch Cuba.

We have heard with regret that Dr. Simmons, editor of the *Journal of the American Medical Association*, has been obliged to submit to an operation for gall-stones. The latest intelligence about the sick man is favorable, and we hope for him a speedy and complete restoration to health.

Current Comment.

AN INTERESTING MEDICAL JUDGMENT.

A short time ago Judge Doherty, of Montreal, delivered an important judgment in a medical case. A man met with an accident by which his foot was crushed. He was admitted to the Royal Victoria Hospital, where Drs. Bell and O'Brien removed the toes and part of the foot. Two weeks later the entire foot was removed. The man entered suit against the hospital and the doctors. The judgment was that the doctors had invaded the patient's rights, as he had the control over his own body, and that a surgeon has no right to perform an operation against the will of a patient unless life is concerned. It was also held that, as the condition of the limb was improved by the second operation there were no damages. The case was, therefore, dismissed.

—*The Canada Lancet.*

MANY LISTERS.

The number of those bearing the name of Lister who have been eminent in medical science is remarkable. Edward Lister, educated at Eton and Cambridge, was a physician to Elizabeth and James I, and his younger brother Sir Mathew, filled the same office to Anne of Denmark, James I and Charles I. Martin Lister, son of Sir Martin and nephew of Sir Mathew, was a famous zoologist and second physician to Queen Anne. Lord Lister is now 70.

His wife was a daughter of the late Professor Syme, of Edinburgh, a surgeon of the first eminence. She died a few years ago. But for Lord Lister's great discovery in 1867, known as the antiseptic treatment, the operation on King Edward could not possibly have been attempted. Lord Lister has the distinction of being the first medical peer.

—*The Philadelphia Press.*

Correspondence.

DELAYED ERUPTION IN MEASLES.

By A. H. SCOFIELD, M. D., of Coggan, Iowa.

To the Editor of the *Philadelphia Medical Journal*:

Allow me report 2 cases of measles, unique in my experience. A child in the family had a typical attack of measles. About 10 days later 2 other children, aged 5 and 8, came down with fever, headache, cough, slight conjunctivitis and epistaxis. The maximum temperature in one case was 103°, in the other considerably less. At the end of a week the temperature in both cases fell below 100°, no eruption having developed. Finally a well marked eruption developed on the *tenth* day of the disease in the more severe case and on the *fifteenth* in the milder one. The only fact having any possible bearing on the delay of the eruption is that, the day before they were taken ill, both children waded for some time in decidedly cold river water and became thoroughly chilled.

Reviews.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners by leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M. D., Chicago; Alexander D. Blackader, M. D., Montreal; H. C. Wood, M. D., Philadelphia; T. M. Rotch, M. D., Boston; E. Landolt, M. D., Paris; Thomas G. Morton, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh, and John Harold, M. D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. J. B. Lippincott Company, Philadelphia and London. Cloth, \$2.00. Volume 1, 12th. series; 84 illustrations; 3 colored plates.

This volume of *International Clinics* fully sustains that general excellence which has rendered this well-known series so acceptable to the medical public. Illustrated biographical sketches of S. Weir Mitchell and John A. Nyeth lend the work an interesting personal character. These sketches are contributed by Dr. Guy Hinsdale, who also is the author of a short article on the climate of New England. In the department of therapeutics Dr. Arthur J. Meigs gives his views on the use of opium in daily practice. Dr. I. Boas discusses habitual constipation and Dr. H. C. Wood, Jr., continues from the last volume, a description of the methods of investigating the actions of drugs. Prof. I. Hallopeau presents an able lecture on the treatment of acne. In the department of medicine we find an able study of the significance of basophile granules in red corpuscles with especial reference to their occurrence in chronic lead poisoning. This is from the pen of Dr. C. E. Simon. Dr. John C. Hemmeter contributes a timely article on gastrointestinal and auto-intoxication. This work also includes a number of excellent papers on surgical subjects, and

among the contributors are Drs. Bayard Holmes, D. M. Greig, John Marnoch, W. L. Rodman, Frederic Griffith and J. K. Young. Dr. A. Boissard furnishes an interesting paper for general practitioners as well as obstetricians on the contest between the advocates of symphyseotomy and the partisans of Cesarean section. Dr. B. A. Randall reports a case of deposit of chalk in the tympanic membrane and a case of mastoid disease due to smallpox. One-third of the book is taken up with the review of the progress of medicine during the year, 1901, by Dr. E. W. Watson. Dr. Watson's work is well done, but we regard it as somewhat out of place and not precisely within the scope of a series of this character. The illustrations are admirable and the typography fully up to the Lippincott standard. [T. L. C.]

A Manual of Surgical Treatment. By W. Watson Cheyne, M. B., F. R. C. S., Professor of Surgery in King's College, London, and F. F. Burghard, M. D., F. R. C. S., Teacher of Practical Surgery in King's College, London. Vol. VI, pp. 498; 124 illustrations; 8vo. Cloth. Lea Brothers & Co., Philadelphia and New York. 1902.

This volume contains the chapters on Surgical Affections of the Tongue and Floor of the Mouth, of the Pharynx, Esophagus and Neck, and of the Abdomen, so far as pertains to the abdominal wall, stomach and intestines and the peritoneum. The remaining affections of the abdominal viscera will be discussed in a subsequent and final volume. It was hoped to complete the work in six volumes, but it has been found that such a course would make the sixth volume too bulky. Hence the necessity arose to divide the material into two volumes.

The authors have maintained the high standard set in the previous volumes. The work continues to be written in most excellent English, which shows that the authors combine literary power with surgical knowledge. The perusal of the book edifies, because the reader is not constantly annoyed by the obvious literary faults, so often found in professional works, and instructs because of the advanced surgical knowledge exhibited by the writers. [J. B. R.]

Transactions of the Louisiana State Medical Society, Twenty-second Annual Session. New Orleans, April 18-20, 1901.

This volume of *Transactions*, like similar books, contains much that is interesting, and a little that is new.

Probably the most instructive paper and certainly the most voluminous in the volume, is that contributed by Professor George E. Beyer, of the Tulane University of Louisiana, on the Mosquitoes and their Relation to Disease. The worker in almost any line of medicine and surgery will find some papers that will particularly interest him.

[W. A. N. D.]

Toxic, Diathetic and Infectious Angina Pectoris.—Marcklen considers that this condition, neuralgia of the cardiac plexus, may be of a toxic, diathetic or infectious origin. In these cases the coronary arteries show no lesions, for these causes act directly on the cardiac plexus, or they provoke arteriosclerosis and finally coronary arteritis. Thus the diagnosis of the kind of angina pectoris present is exceedingly difficult. Toxic angina is due to tobacco, tea, coffee, alcohol, lead, uremia, etc. The diatheses, which may cause angina, are rheumatism, gout, diabetes, etc. Among the infectious diseases it is noted most often in typhoid fever, influenza and malaria. These attacks are all, as a rule, spontaneous, nocturnal and periodical and may sometimes be associated with vasomotor and cardiac symptoms. Recovery may follow withdrawal of the poison, or true coronary angina may develop. (*La Médecine Moderne*, May 28, 1902).

[M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Bills for Purchasing Petty's Island and Cannon-Ball Farm Vetoed.—The Mayor of Philadelphia, July 25, vetoed the bill authorizing the purchase of part of Petty's Island for the erection of the Philadelphia Almshouse and Hospital for the Insane; also the bill authorizing the purchase of Cannon-Ball Farm as the site for the Municipal Hospital. His objection to the former property was that it belonged to the State of New Jersey. The latter he deemed undesirable for hospital purposes.

Typhoid Fever at Easton, Pa.—Several cases of typhoid fever have appeared among the employes of the Sterlingworth Supply Company, West Easton, and over 50 men are ill with symptoms suspicious of typhoid fever. All those who are sick drank water from a spring which is thought to have been poisoned by the flooding of the pool during a recent freshet. The works are closed on account of this epidemic.

Camp Meetings Closed.—Two colored camp meetings at Collingdale, near Darby, Pa., were closed, July 27, by order of the State Board of Health, to prevent a spread of smallpox.

The Health of Philadelphia.—The report for the week ending July 26 showed a marked decrease in all the contagious diseases except scarlet fever, of which the same number of cases, 49, with 2 deaths, was reported, as compared with one death during the preceding week. Fifty-one cases of typhoid fever occurred with 10 deaths, while 63 cases with 10 deaths were reported during the week before. Twenty cases of diphtheria with 5 deaths occurred, compared with 36 cases and 8 deaths during the previous week. Only 4 cases of smallpox, with one death, were reported, while 13 cases with 3 deaths were reported the week before.

NEW YORK AND NEW JERSEY.

Loomis Sanatorium, Liberty, N. Y.—Dr. H. M. King, of Grand Rapids, Mich., has just been appointed physician-in-charge, replacing Dr. J. Edward Stubbett.

Milk Impurities in Brooklyn.—It has recently been found that as high as 43,000,000 bacteria existed in 15 drops of a specimen of Brooklyn milk. The milk was on sale, was not sour and its condition was not apparent on superficial examination. The investigation was conducted in the Hoagland laboratory, on behalf of the King's County Medical Society. It is expected soon to establish in Brooklyn a certified milk, the purchasers of which will have the reasonable assurance that it contains not more than 30,000 bacteria to the cubic centimeter.

\$500,000 for Charity.—Among the various charities, to which large sums of money were left by the late Mrs. M. J. Walker, of New York, \$50,000 were given to the Fresh Air Fund for improving the condition of the poor, \$100,000 to St. Luke's Hospital, \$25,000 each to the Fordham Home for Incurables, New York Institution for the Blind, St. Luke's Hospital for Indigent Females, etc., and various large sums to many other important charitable institutions.

WESTERN STATES.

The Plague in San Francisco.—On July 13 another case of bubonic plague was discovered in San Francisco, death occurring on the same day. This makes the 59th. case of plague in San Francisco since the outbreak of the disease last year.

Dr. Simmons' Illness.—We regret to learn that Dr. George H. Simmons, editor of the *Journal of the American Medical Association*, was operated upon, July 13, for gall-stones. It is a pleasure to add that the latest reports from Chicago indicate a steady progress towards satisfactory recovery.

Experiments for Preventing Scarlet Fever.—The superintendent for the Municipal Laboratory, Chicago, is now conducting a number of experiments upon pigs which have been inoculated with scarlet fever, in the hope of discovering a preventive serum against scarlet fever. As the experiments were considered too dangerous to be made in the city, a large farm lot was secured in Michigan for the purpose.

Medical Societies Consolidated.—The Wayne County Medical Society and the Detroit Medical Society were consolidated, July 25, in the city of Detroit. Instead of being purely local, the new organization will have a national

scope. The new society continues under the name of the Wayne County Medical Society of the city of Detroit.

Fighting the Mosquitoes in St. Louis.—The city of St. Louis has recently passed an appropriation sufficiently large for purchasing disinfectants, with which to destroy the larvæ of mosquitoes. Crude oil will be used upon the stagnant pools in and about the city.

CANADA.

Winnipeg Free From Smallpox.—The smallpox hospital was closed July 12. It has been occupied almost continuously since last October, and of all the patients treated only one death occurred, in an infant one week old.

New Brunswick Medical Society.—The twenty-second annual meeting was held in St. John, July 15 and 16. The following members read papers: Dr. Atherton, Fredericton; Dr. C. R. Shaugnessy, St. John; Drs. Laughlin, Milton and McLaren, St. John; Dr. C. M. Campbell, Halifax; Dr. G. A. B. Addy, St. John and Dr. Lawson, St. Stephen.

Infant Mortality in Montreal.—One hundred and eight babies died in Montreal during the week ending July 19. This is a greater percentage than for the previous week. Infantile debility is set down as the cause of death. The death-rate for the week was 167.

Trinity Medical College is making some important changes in the course of instruction for the coming session. The third and fourth year classes will not be required to attend lectures together, as the courses will be different. According to the new plan, students of the third and fourth years will be required to attend about 130 lectures.

The Toronto Clinical Society has elected the following officers for the coming year: President, Dr. Edmund E. King; vice-president, Dr. George R. McDonagh; corresponding secretary, Dr. W. J. McCollum; recording secretary, Dr. George Elliott; treasurer, Dr. Geoffrey Boyd.

The Medical Society of Nova Scotia held its thirty-fourth annual meeting at New Glasgow, July 2 and 3, under the presidency of Dr. John W. Mackay, of New Glasgow. The society will meet next year in Antigonish. The following officers were elected: President, Dr. J. J. Cameron, Antigonish; first vice-president, Dr. W. G. Putnam, Yarmouth; second vice-president, Murdoch Chisholm, Halifax; secretary-treasurer, Dr. Huntley McDonald, Antigonish.

The Maritime Medical Association met this year in Charlottetown, P. E. I. Among those who contributed papers were: Dr. W. B. Geikie, Toronto; Dr. H. D. Hamilton, Montreal; Dr. Stoddart, Pueblo, Colorado. Officers elected were as follows: President, Dr. Murray McLaren; vice-president for P. E. I., Dr. P. C. Murphy, Tignish, P. E. I. for New Brunswick, Dr. R. L. Botsford, Moncton; for Nova Scotia, Dr. G. M. Campbell, Halifax; secretary, Dr. T. D. Walker, St. John, N. B.; Treasurer, Dr. C. A. McPhail, Summerside, P. E. I.

MISCELLANY.

Cholera in Egypt.—News from London states that, on account of the cholera in Cairo, the British regiments are leaving Cairo to camp in the desert. The disease has appeared in all quarters of Cairo and temporary hospitals are being erected. The drinking fountains have been closed. The epidemic is said to be of a most virulent character, the natives dying in the streets soon after being attacked. For the week ending July 25, 307 cases, 227 of which proved fatal, were reported in Egypt. One hundred and twenty new cases of cholera were reported July 26. July 27, 52 fresh cases and 38 deaths occurred in Cairo. One Englishwoman has been attacked by the disease.

Cholera in the Philippines.—Cholera, which had been diminishing for a week, suddenly increased to 78 cases in Manila, July 24, the largest number reported in one day since the outbreak of the disease. The removal of the quarantine on vegetables and fruits possibly accounts for this new outbreak. During the 48 hours ending July 27, 150 fresh cases were reported in Manila. Dr. Perry's latest report, dated June 7, says that in the villages 1/10 of the entire population has died of cholera.

The Death-Rate of Havana.—The sanitary condition in Havana is fast becoming what it was before the coming of the Americans. The splendid system inaugurated by General Ludlow is being superseded by one as lax as his was stringent. The prominent thoroughfares and conspicuous parks are, of course, receiving attention. The back streets

markets, back yards and sewers, where the real danger lies, are, however, being neglected. Plumbing is no longer being done as it was before May 20 of the present year. Then the engineer and sanitary departments were kept busy and the owners of unsanitary places were forced to comply with requirements which freed the city from pestilence and made it one of the most healthful places on the globe. The first month's regime has seen the death-rate of Havana increase enormously, and the conditions which existed prior to 1899 are gradually but surely returning. The government pleads poverty and thus the impossibility of maintaining the standard where Americans left it. The Platt amendment provides specifically that the same standard of sanitation inaugurated by the government of intervention must be maintained by the Cuban authorities and it is probable that a vigorous protest will be sent to Washington. During the week of June 21, a break occurred in the 42-inch main of the Havana water works, depriving the city of fresh water for nearly a week. Old cisterns and wells were used, and it is feared that typhoid fever and other diseases will result.

The Healthiest Town in the United States.—According to the records of 1901, Ellsworth, Wis., with a population of 1500, was the healthiest place in the United States. But 2 people died in this town, one of the deaths being from smallpox. Iowa is the most healthful State, showing a mortality record for the year of only 9.2 per 1000. Arizona is the most healthful territory, with a record of 8.3 per 1000. Louisiana has the highest percentage of deaths, her record being 20.65 per 1000. Among the cities Charleston, S. C., heads the list with a death-rate of 29.11. New Orleans comes next with 24.44; Washington, D. C., 21.14, New York, 20; Boston, 19.7; San Francisco, 19.34; Cincinnati, 18.88; Philadelphia, 18.27; St. Louis, 17.67, and Chicago, 13.88.

A Correction.—On page 517 of this Journal, issue of March 22, 1902, there appeared an abstract of a paper on Specific Medication, by Andrew H. Smith, from the *Medical Record* of March 15. In this abstract a typographical error occurred in our mentioning *phosphate* of creosote for *carbonate* of creosote, the drug mentioned in the original article.

Obituary.—Dr. R. M. Hunt, of Nevada City, Cal., July 15, aged 75 years.—Dr. F. W. James, at San Jose, Cal., July 17, aged 77 years.—Dr. Jacob Marti, at Kiel, Wis., July 18.—Dr. R. M. Anderson, at Petersburg, Va., July 19, aged 84 years.—Dr. Charles A. Shannon, at Stephens City, Va., July 21.—Dr. Abram Mills Fanning, at New York City, July 20, aged 39 years.—Dr. Joseph Biddle Wilkinson, at New Orleans, La., July 21.—Dr. L. M. Gregory, at Crystal Falls, Mich., July 21, aged 75 years.—Dr. John T. McLean, at Alameda, Cal., July 15.—Dr. L. C. Pollard, at Point Eastern, Va., July 22.—Dr. Carlo Imperatori, at New York City, July 24, aged 69 years.—Dr. E. Lee Wager, at Charlestown, W. Va., July 23, aged 78 years.—Dr. Eugene Grissom, at Washington, D. C., July 27, aged 71 years.—Dr. H. C. Welfley, at Shenandoah City, Page county, Va., July 25, aged 45 years.

GREAT BRITAIN, ETC.

Emigration From Ireland.—The final summary of the Irish census returns shows that during half a century more than 3,000,000 persons have emigrated from Ireland, and that 80 per cent. of them have gone to the United States.

Eyeglasses in the English Army.—The Minister of War has authorized officers and soldiers, to whom eyeglasses or spectacles are a necessity, to wear them on and after March 1, 1902, not only when off duty, but also when in active service.

Medical Practitioners in the United Kingdom.—The 10 cities in the United Kingdom containing the largest number of medical practitioners are the following in numerical order: London, Glasgow, Edinburgh, Manchester, Liverpool, Dublin, Birmingham, Leeds, Brighton and Belfast. The average number of physicians, per 10,000 of the population, reaches its highest limit, 23.08, at Clifton; next comes Bournemouth, 24.38; with Harrogate, 21.11; Cambridge, 21.09; Weston-Super-Mare, 20.47, and Bath 20.07. The other cities all contain less medical practitioners. In London there are about 12 medical men per 10,000 of the population.—*Lancet*.

A Municipal Crematory.—The first municipal crematory in England has just opened at Hull. The construction cost \$13,000, but the expense of cremation will not be higher than that of an ordinary funeral.

Immigration to Canada.—In the house of Lords, July 25, the Under Secretary for the Colonial Office stated that in 1901 the number of Americans who emigrated to Canada was 17,987, while, to the most recent date, this year, the number was 24,100. The Under Secretary also said that in Western Canada land was being taken up with unexampled rapidity, not only by Americans but by Englishmen and other Europeans. This process bids fair to make the Canadian wheat fields an important factor in the wheat supply of the world.

A Donation.—It is announced that the Maharajah of Jai-pur, India, has given the sum of \$25,000 to King Edward's Hospital Fund on the occasion of his visit to London recently, for the coronation.

German Cancer Investigation Committee.—The director of the Cancer Research Laboratory of the Middlesex Hospital, London, Alexander G. R. Foulerton has been appointed a member of the German Cancer Investigation Committee.

A Living Monstrosity.—At Martley, Worcestershire, a woman of 36, whose husband is over 60, was delivered of a male child, April 9, totally without arms, legs or thighs. The child is living and appears healthy.—*Worcester Journal*.

CONTINENTAL EUROPE.

To Restore the Appetite.—It is reported that an Austrian physician, by applying carbonic acid gas at a temperature between 100° and 120° F. below freezing, has found a means for giving sick people an appetite. The cold carbonic acid, wrapped in a bag of brown holland, is placed upon the epigastrium a half hour before meals. A layer of cotton wool is inserted between the bag and the stomach. It is said that after 5 days' treatment a good appetite returns.

A National Congress of Hydrology, Climatology and Geology.—The 6th. annual meeting will be held in Grenoble, France, September 28, 1902. Papers will be read on the action of mineral waters on the human system, the influence of altitude, heat and cold on respiration, and the origin and nature of the various mineral waters of France.

Ten Years Mortality in the Alps.—Statistics of the fatal accidents in the Alps for the last 10 years show a total of 275. Thirty-seven % of these were in the Central Alps, including Switzerland, 13% in the Western Alps, and nearly 50%, 133, in the Eastern Alps. Of the 301 deaths which resulted from the 275 fatal accidents, 190 were Germans or Austrians, 48 Swiss, 23 Italians, 18 Englishmen, 15 Frenchmen, and 27 of other nationalities. Seven of those killed were women, 73 were guides, and 14 porters.

Remuneration of Russian Army Surgeons.—When he is first engaged, a Russian surgeon starts upon the salary of \$400 a year. On this pay he remains 4 years, when he is advanced to \$500 yearly for 4 years. Four years later this is increased to \$650; then to \$750; the final remuneration, the highest which he can obtain, being \$2750 a year. When compared with the salaries of American Army surgeons, it will be noted that Russia pays less than half the amount received by U. S. military surgeons.

The Resistance of Tetanus Toxin to Putrefaction.—In a recent medicolegal case in Russia, Dr. Symanski proved that tetanus toxin long resisted putrefaction; for it was discovered in a dead body 36 years after burial.

Cholera in Russia.—It is reported that cholera has broken out in the Government of Astrakhan, 15 deaths being reported July 25. In Mukden, Manchuria, there were 757 cases between July 3 and 14, 81 Russians and 363 Chinese dying from the disease.

The Age of Appendicitis.—Professor Lannelongue recently stated, at a meeting of the Académie des Sciences, Paris, that an Egyptian mummy of the 11th. dynasty, dating back about 5000 years, showed the results of an operation for appendicitis.

Sweden's Low Death-Rate.—Sweden's last census records the lowest death-rate yet attained by a civilized nation. During the last 10 years it only averaged 16.19 per 1000.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

July 12, 1902.

1. A Lecture on Myopathy and a Distal Form.
W. R. GOWERS.
2. A Note on the Teaching of the History of Medicine.
WILLIAM OSLER.
3. On Some Results Obtained by Disinfection and Isolation Against Cholera. MARC ARMAND RUFFER
and C. ZACHARIADES BEY.
4. An Epidemic of Dengue Fever. F. O. STEDMAN.
5. The Treatment of Typhoid Fever. N. E. NORWAY.
6. Five Cases of Perforated Gastric Ulcer Treated by Abdominal Section and Suture, with Remarks on the Treatment and Prognosis of these Cases.
GEORGE HEATON.
7. Removal of One-third of the Stomach with Three and a Half Inches of Duodenum for Cancer.
J. LYNN THOMAS.
8. Recent Operations on Stomach, Gall-Bladder and Bile Ducts, and for Extra-uterine Pregnancy.
J. SCOTT RIDDELL.

1.—Gowers has suggested that the decay which results from defect of life might be called **abiotrophy**. He reports several cases that he considers to be examples of muscular abiotrophy. Two of the patients suffered from the pseudo-hypertrophic form and one from the facioscapular form. He also calls attention to a form that he terms distal **myopathy**. This muscular disease affects the hands and feet together with the tongue and the upper part of the face. The electrical excitability of the muscles is lowered in proportion to their feebleness. The disease is considered to be an example of a primary myopathy, which differs from all recognized forms of primary myopathy in the purely distal distribution of the affection in the limbs and in the normal state of the muscles near the trunk. Gowers believes that the disease is the result of a defective vital endurance inherent in the embryonal tissues from which the muscular structures of the body arise; a defect variable in distribution, in character and in tendency. No positive result can be obtained from the administration of medicine of any kind. Muscular exercise is the one agent that will produce benefit. [J. M. S.]

3.—The presence of **cholera** in the Hedjaz was officially promulgated March 7. All pilgrims from the north were quarantined for 15 days at Tor, where their effects were disinfected, and every sick person was sent to either the hospital for ordinary diseases, to the cholera hospital or to the suspects hospital. Out of 26,139 pilgrims 54 cases of cholera developed. The disease showed a mortality of nearly 80%. In spite of a severe plague of flies, the disease did not spread in the cholera camp and, consequently, Ruffer and Zachariades Bey are somewhat sceptical concerning the spread of cholera by these insects. [J. M. S.]

4.—There was an epidemic of **dengue fever** in Hong Kong during the last 3 months of 1901. Stedman uses sodium salicylate and hot baths to relieve the pain during the febrile stage. The pain that is noticed after the febrile stage he treats with salicin, potassium iodide, massage and rubbing with stimulating liniments. [J. M. S.]

5.—Norway treats **typhoid fever** in the following way: He first gives one grain of calomel with 10 grains of phenacetine. He then gives the patient a mixture composed of $\frac{1}{2}$ dram to 1 dram of essence of pepsin; 10 minims of dilute nitrohydrochloric acid; 20 minims of glycerine; and enough water to make $\frac{1}{2}$ ounce. This mixture is diluted with $\frac{1}{2}$ glass of water and is given in small quantities every hour. The author believes that it will enable the patient to digest the nourishment given him. If the heart appears to need stimulation he adds 10 minims of spirit of chloroform to the above mentioned mixture. If pain is

present or if the patient cannot sleep, he adds a solution of morphine hydrochlorate to the mixture. [J. M. S.]

6.—Heaton reports 5 cases of perforated gastric ulcer treated by abdominal section with a successful issue in 2. [F. T. S.]

7.—Thomas reports a case of carcinoma of the pylorus in which it was necessary to excise one-third of the stomach and $3\frac{1}{2}$ inches of the duodenum. The growth was removed between clamps, the cut ends of the stomach and duodenum closed with sutures and a gastrojejunostomy performed. The patient survives at the end of 10 months. [F. T. S.]

8.—Riddell reports 5 successful gastro-enterostomies, 3 for malignant disease of the pyloric end of the stomach, one for inflammatory tumor and one for gastric ulceration; a partial gastrectomy for cancer and a gastrostomy for stricture of the esophagus with a successful issue in each instance are also reported. Riddell also gives the histories of 3 cases of stricture of the choledochus in which cholecystenterostomy was performed (one death), of a case of choledochotomy for choledocholithiasis and of 3 cases of tubal pregnancy. In operations for the anastomosis of hollow viscera he prefers Robson's bone bobbin. [F. T. S.]

LANCET.

July 12, 1902.

1. Five Clinical Lectures on the Causation and Prevention of Phthisis. (Lecture II). BYRON BRAMWELL.
2. On the Acetone Series of Products in Connection with Diabetic Coma. F. W. PAVY.
3. The Subcutaneous Injection of Sodium Cinnamate. A New Departure in Therapeutics. LOVEL DRAGE.
With a Note on the Preparation of Sodium Cinnamate Solutions Suitable for Hypodermic Injections.
GILBERT T. MORGAN.
4. The Hetol Treatment of Tuberculosis. O. AMREIN.
5. An Explanation of the Cause of Inequality of Pupils in Cases of Thoracic Aneurysm. R. CECIL B. WALL
and E. W. AINLEY WALKER.
6. Preliminary Note on the Chemical and Therapeutic Properties of Lachnanthes Tinctoria.
J. A. GARDNER, HAROLD R. D. SPITTA and
ARTHUR LATHAM.
7. Leukocytosis in Appendicitis.
C. J. NEPEAN LONGRIDGE.
8. A Case of Excision of Chronic Gastric Ucer.
THOMAS H. KELLOCK.
9. The Treatment of Early Mental Cases.
F. S. TOOGOOD.

2.—Abstract will appear when concluded.

3.—Drage contributes an article entitled **the subcutaneous injections of sodium cinnamate, a new departure in therapeutics**, to which is appended a note by Morgan on the preparation of sodium cinnamate solutions suitable for hypodermic injections. Drage thinks that the beneficial action of sodium cinnamate is due to the fact that this drug produces a general leukocytosis, which is likely to be of avail in the repair of tissue damaged by inflammatory, cancerous or tuberculous process, because it is the leukocyte of one kind or another which is the agent of destruction or repair. He reports a case of tuberculosis of the lungs occurring in an individual, 60 years of age, treated with one injection of 15 minims of the solution of sodium cinnamate into the skin with the result that the expectoration of the patient diminished and a month later it was very small in amount. He reports another case which he believed to be cancer of the pancreas occurring in a patient, 60 years of age. After the first injection of sodium cinnamate the patient vomited and suffered great pain. He was given 2 injections of 30 minims each twice a week. A third case is reported, one of chronic inflammatory middle ear disease, occurring in a man, 20 years of age. Thirty minims of sodium cinnamate were injected behind the mastoid and after 2 weeks a second in

jection was given. Marked improvement in the local condition followed. Morgan states that the therapeutic application of sodium cinnamate described in the preceding communication was rendered practicable by the discovery that this salt dissolves in glycerine to form a clear solution which can be easily manipulated in the hypodermic syringe. This observation was the outcome of his own experience on the solubility of the substance in various media, an investigation which was undertaken at Drage's suggestion. [F. J. K.]

4.—Amrein reports his results with the hetol treatment of tuberculosis, during a period between 1899 and 1901. The author always began his treatment by injecting (intravenously) one mg. (0.001 gm.), and the injections are repeated every third day, increasing the dose—after two injections of a similar dose—by one mg., until 10 mg. had been reached; then by $2\frac{1}{2}$ mg. until from 20 to 25 mg. (maximal doses) had been reached, using a solution of 1 per cent. up to 10 mg. and a solution of 5 per cent. from 10 mg. to from 20 to 25 mg. A table is appended which shows the results of 13 cases treated by hetol measures. The author remarks that real positive success was obtained in 4 cases out of the 13, but as the patients had been undergoing a cure in high altitudes (9 of them at Davos-Claendal and the others at Arosa) it is quite impossible to say whether these results are caused by the injections or not, and whether they could not have been obtained by the climatological dietetic treatment alone. He believes that they are not at all different from some cases, which he treated, of a similar character, in which no injections were made. [F. J. K.]

5.—Cecil, Wall and Walker contribute an article entitled **an explanation of the cause of inequality of pupils in cases of thoracic aneurysm**. Their conclusion, which is based upon clinical observations and experimental evidence, is that inequality of pupils associated with thoracic aneurysm is usually due to inequality of the bloodpressure in the ophthalmic arteries, resulting from an abnormal vascular condition. They make the following general summary: A.—The explanation, which ascribes the anisocoria at times occurring in cases of thoracic aneurysm to interference with the sympathetic, is unsatisfactory. (1) On anatomical grounds; (a) because in the majority of cases there is no evidence of implication of that portion of the sympathetic nerve trunk containing pupil dilator fibers; and (b) because it is not established that sympathetic filaments supply the sac wall of the aneurysm. (2) On physiological grounds; (a) because the explanation supposes that the same conditions may produce sometimes irritation and sometimes paralysis of the nerve; (b) because cases are rare in which there is any evidence apart from the pupillary change and that the sympathetic is involved; and (c) because the pupillary changes are not those met with in cases in which the sympathetic is involved. B.—(1) Alterations in the vascular conditions may be associated with alteration in the size of the pupils. (a) High arterial tension is associated with small pupils; and (b) low arterial tension is associated with large pupils. (2) The physical explanation of this phenomenon is probably to be found in the spiral structure of the vessels of the iris. C.—Local inequalities of the bloodpressure may be associated with inequalities of the pupils. (a) Clinical evidence: (1) Enlargement of the pupils is frequently associated with diminution of the temporal and radial pulses on the same side of the body. (2) Obstruction of the carotid artery on one side of the neck is associated with enlargement of the pupil upon the same side. (b) Experimental evidence: (1) Obstruction of the carotid in rabbits is associated with enlargement of the pupils on both sides, owing to the freedom of circulation at the base of the brain. (2) Injection of water into a carotid artery of a dead rabbit causes narrowing of the pupil upon the same side. (3) Digital compression of the carotid artery in the human subject is associated with enlargement of the pupil upon the same side. [F. J. K.]

6.—Gardner, Spitta and Latham contribute a prelimin-

ary note on the chemical and therapeutic properties of *lachnanthes tinctoria* and draw the following conclusions: It would appear from the above that lachnanthes consists largely of a resinous substance or substances and some body which is precipitated by lead subacetate and is soluble in water. Further, so small a dose as 5 cc. of an aqueous solution of the material obtained by alcoholic extraction of the plant is sufficiently powerful to kill guinea-pigs, whilst doses varying from 1 to 3 cc. of the same solution do not exert any inhibitory action upon the progress of tuberculosis but rather seem to hasten it. Further experiments are being made and will eventually be published. [F. J. K.]

7.—Longridge presents a table of 20 cases showing the results of **blood examination in cases of appendicitis**. His conclusions correspond to those of Cabot, DaCosta, Joy, Wright and others. The advantage of the leukocyte count in these cases is that it shows whether or not the morbid process is increasing. More important than the quantitative count is the qualitative count of the leukocytes, since an increase in the polymorphonuclear cells out of proportion to the other elements is indicative of progression. No leukocytosis is found in cases of mild catarrhal appendicitis, in cases of fulminating appendicitis in which no resistance is offered, or in cases of longstanding abscess.

[J. H. G.]

8.—Kellock reports a case of **excision of a chronic gastric ulcer** in a woman, 36 years of age. The ulcer was situated in the posterior wall of the stomach near the cardiac extremity of the lesser curvature. The case is very interesting, as it showed an elongated band attaching the site of the ulcer to the lesser omentum and resulting in a separation of the structure of the omentum. The band was divided and the ulcer, with an indurated portion of the stomach wall, excised. The wound was closed with 3 layers of sutures, one in the mucous membrane, one in the muscular wall, and the third in the serous coat. The patient was fed by the rectum for 7 days and made an uneventful recovery. The final outcome of the case was most satisfactory. It is thought that the band had been produced from an adhesion, the result of a former attempt of the ulcer to perforate. [J. H. G.]

9.—Toogood discusses **the treatment of early mental cases**. Toogood thinks that early mental cases, amongst the nonpauper classes, who very properly object to the Poor-law Infirmary, should be treated in a general hospital. He remarks that such a course would be very beneficial to the student who, as a rule, knows nothing whatever of lunacy and has probably never seen a certificate. To the patient and his friends the advantages will be enormous; two-thirds of the patients will be cured and no stain of lunacy will rest upon the patient or his family. Those of us who work amongst the lower classes know that a person who has once been an inmate of a lunatic asylum has a very poor chance of obtaining settled employment where he is known, whilst the marrying prospects of the girls of the family are materially reduced. The "stigma" of lunacy is a very real one and must be taken into consideration. The mental wards of a hospital would, of course, have to be licensed or registered, and would be subject to the inspection of the Visitors in Lunacy. [F. J. K.]

MEDICAL RECORD.

July 26, 1902.

1. Typhoid Fever From Sources Other Than Water-Supply. M. A. VEEDER.
2. Electrical Reactions of the Gastro-Intestinal Musculature and Their Therapeutic Value. G. W. McCASKEY.
3. Penetrating Injuries of the Eye With or Without the Presence of a Foreign Body in the Organ, and the Treatment. J. MORRISON RAY.
4. Quantitative Changes in the Blood in Pulmonary Tuberculosis. MARTIN L. SEVENS.
5. Classical Example of Landry's Paralysis. WILLIAM BROADACRE PRITCHARD.

1.—Veeder discusses the subject of typhoid fever from sources other than the water-supply. The history of the typhoid bacillus planted and living in garden earth is yet to be sufficiently studied. It survives in the ground just as successfully as it does in water. There are localities in which typhoid fever is perpetuated from year to year because of soil contamination primarily. In these cases, if there is any contamination of the water-supply, it is secondary to that of the soil and the disease may be spread from the soil itself without the aid of water. The writer states that typhoid bacilli in the soil grow to the surface even at the end of so long a period as a year, and, once at the surface, conveyance to the stomach is possible in a great variety of ways. Veeder reviews at length the subject of infection by the typhoid bacilli. [T. L. C.]

2.—McCaskey has studied the electrical reactions of the gastro-intestinal musculature and their therapeutic value. He concludes that electricity is a valuable auxiliary in the treatment of muscular atony of the stomach and intestines, although adequate and properly balanced nutrition must be maintained. Faradism is the preferable form of electric treatment, the effect of galvanism being problematical. The resistance of the mucous lining of the digestive tube offers no great obstacle to the passage of either current. Electric currents, when applied either percutaneously or with one or both electrodes in mucous-lined cavities, pass directly through the abdominal cavity and the walls of the contained viscera thus following the line of least resistance. It is impossible to produce a physiological peristaltic wave of the stomach by any method of electrical stimulation either experimentally or clinically. Intragastric faradization, and possibly the percutaneous application, produce an increase of tonicity of the stomach-wall with measurable but slight shrinkage in volume. Intracolonic faradization especially, if the opposite pole is in the stomach, if continued several seconds, produces active peristalsis. Localized contraction of both the intestinal and gastric musculature can be produced by local application of a concentrated current upon the mucosa; if continued it will incite peristalsis in the intestine, but not in the stomach. [T. L. C.]

4.—Stevens has studied the quantitative changes in the blood in pulmonary tuberculosis. The number of red corpuscles is usually higher than the patient's appearance would suggest. In many cases the count is normal. A low count when present is suggestive of low resisting power or an unfavorable complication. There is a true oligemia in the majority of cases. The hemoglobin and the corpuscle-worth are so uniformly subnormal as to justify the conclusion that anemia is a characteristic of the disease. The specific gravity is low, but a little higher than corresponds with the hemoglobin. The number of leukocytes varies from one-half to 4 or more times the normal number, depending upon the stage of the disease; the character of the infection, the resisting power of the individual and the presence of complications. [T. L. C.]

5.—Pritchard presents the notes, without autopsy record, of a classical example of Landry's paralysis. The symptoms came on suddenly after exposure to the rain and at first were those of excessive lassitude and general weakness. A week later paralysis began in the left foot and was rapidly progressive. The patient died from paralysis of the pneumogastric. [T. L. C.]

MEDICAL NEWS.

July 19, 1902. (Vol. 81, No. 8.)

1. Illustrative Errors and Difficulties in the Diagnosis of Affections of the Biliary System. C. L. GIBSON.
2. The Nonheredity of Acquired Characters.

LAWRENCE IRWELL.

3. The Morning Drop; Its Treatment.

FRED. C. VALENTINE.

4. Is Vivisection a Benefit to Man and Animals and Justifiable? E. STUVER.

5. Hepatic Gout and Its Treatment.

J. LEFFINGWELL HATCH.

6. Report of a Case of Cerebral Tumor.

FRANK HALLECK STEPHENSON.

7. Observations Upon Two Interesting Cases of the Local Manifestations of Hysteria in Joints and Muscles.

PRESCOTT Le BRETON.

- 1.—Gibson reports 4 cases in which tumor in the region

of the gall-bladder gave rise to confusion. Clinically, we expect to find an enlargement of the gall-bladder principally in 2 conditions: (1) The so-called hydrops of the gall-bladder when the exit to the secretions of the gall-bladder is hindered by an obstruction of the cystic duct, provided the walls of the gall-bladder be sufficiently distensible; (2) compression of the common duct, without, as in tumor of the pancreas; (3) other sources of enlargement, such as empyema of the gall-bladder, are rare, and yet it is the general custom to lay considerable stress on the presence or absence of the gall-bladder. [T. M. T.]

2.—Irwell considers it the duty of scientific men "to educate their masters," the sociologists and the legislators, by demonstrating to them that the hypothesis of the heredity of acquired characters is not sustained by reliable evidence, and that the complete recognition of the Darwinian principle of the selection, by Nature and artificially, of those who are congenitally "the fittest" is the only method by which the human race can obtain permanent control of its destiny. [T. M. T.]

3.—Valentine states: (1) That the morning drop is ordinarily a symptom of local or constitutional disturbance; (2) that when it is not due to either of these it is maintained by overtreatment or artificial sexual irritation; (3) that according to its cause it must be treated; locally, if due to a local cause, and constitutionally, if faulty metabolism or food irritation be the provoking element; if sexual irritation be the cause, it must be stopped; (4) that, if the morning drop be due to overtreatment, this must be discontinued; (5) that its treatment is within the sphere of the general practitioner. [T. M. T.]

5.—Hatch believes that certain forms of hepatitis are due to excess of uric acid in the blood, the result of defective metabolism, and when a certain limit is reached, a toxemia and a consequent nervous explosion with symptoms of headache, vertigo, vomiting, wandering pains, cramps, trembling of the limbs, fever, etc., occur. This justifies its being classed among the rheumatic manifestations under the name of hepatic gout. The condition is amenable alike to other manifestations of their class, to treatment by administration of colchicine and salicylic acid capsules, and complete removal of the symptoms may be effected if this be persistently carried out. [T. M. T.]

6.—Stephenson gives the symptoms of these tumors as follows: (1) General, irrespective of location; (2) focal, those dependent upon the treatment of the neoplasm; (3) topical, those at the superficial site. The author reports a case with the following interesting points: (1) Its onset and general appearance, suggesting neuralgia; (2) the short duration of the symptoms of suffering in comparison to the serious ravages in the brain by the tumor; (3) the absence of so many symptoms of brain tumor when a growth of so great size and so much destruction was present; (4) the absence of mental impairment, when such an extent of damage had resulted; (5) the marked improvement of the left hand and arm, when such damage had occurred in the brain; (6) the early and continuous neck and occipital pain, which latter disappeared almost entirely, its place being taken by supra-orbital pain directly over the seat of tumor. [T. M. T.]

7.—Le Breton says cases of wry neck in females under 30 years of age are often of hysterical nature, according to Gowers, and this is probably true of males of the same age. Whitman, out of 212 cases of torticollis, found but one case of associated hysteria, 181 cases were of the class of acute spastic torticollis due to irritation of the peripheral nerves of the nasopharynx, the muscles involved being those supplied by the spinal accessory. Gowers states that fly-blisters are of great service in hysterical cases, and that rarely after an apparent cure relapse may occur and the persistent form of wry neck develop. [T. M. T.]

July 26, 1902. (Vol. 81, No. 4.)

1. A Few Notes on Syphilitic Bubo. A. RAVOGLI.
2. Tobacco Heart: What it is and What Its Treatment. FRANK D. MAINE.
3. The Changes of the Leukocytes in Disease as an Aid to Diagnosis and Prognosis. THOMAS R. BROWN.
4. A Study of Burns. MARY F. MUNSON.

1.—Ravogli concludes that the alterations of the lymphatic glands are the cause of the leukocytosis in syphilis. The hypertrophy of the connective tissues forming the follicle of the gland, together with the hypertrophic cor-

dition of the bloodvessels induced by the syphilitic virus, prevents greater elaboration of the white elements of the blood, which in a large quantity remain accumulated in the alveoli as mononuclear leukocytes. The swelling of the lymphatic gland is not from a genuine inflammatory process, but from a hyperplastic process representing that which is found in the tissues affected with initial sclerosis. The accumulation of the lymphocytes in the cavitory system of the gland is not the result of an active exudation, but rather of a passive exudation on account of the difficulty which the lymphatic elements find in going through the affected glandular tissue. [T. M. T.]

2.—Brown states that there are different forms of white bloodcells; so are there different forms of pathological leukocytosis, according to which these forms are increased; thus we may have: (1) The common or polymorphonuclear neutrophilic leukocytosis, the condition met with in most infectious diseases and inflammatory conditions; (2) eosinophila or eosinophilic leukocytosis, a rarer but no less interesting condition, met with regularly in various diseases of the skin, in bronchial asthma and myelogenous parasites, besides being met with occasionally in a variety of other conditions; (3) lymphocytosis, the passive leukocytosis of Ehrlich, the condition met with normally in childhood and present in various morbid processes associated with diseased conditions of the lymph apparatus and in a few of the acute infectious diseases, as whooping cough and typhoid fever. [T. M. T.]

3.—Munson gives 4 negations to be observed in order to obtain perfect results in the treatment of burns: (1) Never use a dry dressing. (2) Never forcibly remove the skin or deeper tissues; prevent their removal, if possible. Keep the wound free from pus with a liquid antiseptic and nature will remove the dead tissue, by healthy granulations beneath. The skin is a protection. (3) Never use any oils or salves. If these are used, pus will form. (4) Never change dressings too frequently. A perfectly antiseptic liquid dressing will keep the wound clean and odorless; hence change is not necessary. The earlier a burn is dressed, the better for the comfort of the patient, but it can be treated at any stage with equal success. [T. M. T.]

THE NEW YORK MEDICAL JOURNAL.

July 19, 1902. (Vol. LXXVI, No. 3.)

1. Subcutaneous Division of the Tendo Achillis for the Relief of Equinus Following Infantile Paralysis. RUSSELL A. HIBBS.
2. On the Contraction of the Iliopsoas Muscle as an Aid in the Diagnosis of the Contents of the Iliac Fossa. S. J. MELTZER.
3. The Early Diagnosis of Uterine Cancer; Operative Limitations. JOHN O. POLAK.
4. The Histrionic Development of Mental Disease. THEODORE H. KELLOGG.

1.—Hibbs, in his article on **subcutaneous division of the tendo Achillis** states that the modifications of the function of the calf in the cases reported was the result of: (1) The shortening of the muscle in the production of the deformity; (2) the further shortening of the muscle as the result of the lengthening of the tendo Achillis by tenotomy in the correction of the deformity and (3) the still further shortening of the muscle as a result of the lengthening of the tendon caused by the elongation of the structure forming the bond of union between its divided ends. [T. M. T.]

2.—Meltzer by **elevating the psoas muscle** found: (1) It can be used as a landmark; (2) the elevation brings the viscera above it nearer the surface and nearer the palpating finger; (3) the outlines of the viscera are more easily palpable when they are moved under the fingers while riding on the elevated back of the psoas than when they are flatly stretched on the even surface of the iliac fossa; (4) by repeated increasing and decreasing the flexion of the thigh the viscera move to and from our fingers and sometimes render to palpation an assistance similar to that which it derives from the respiratory movements; (5) when the active flexion approaches a right angle, the viscera can often be felt moving perceptibly headward on the steep slope of the psoas elevation. The movement is

absent when the viscus is adherent; (6) by alternate abduction and adduction of the thigh while in a flexed condition the psoas elevation moves from side to side and arrests the palpation in many ways. [T. M. T.]

3.—Polak concludes his article with the following points: (1) The early diagnosis is possible; (2) the earliest symptoms differ, depending upon whether the disease begins during menstrual life or after the menopause; (3) during menstrual life, compare every bleeding with what it has been in the same woman. Be suspicious of intermenstrual spotting and serous discharge; (4) after the menopause any serous or sanguineous discharge is significant; (5) examine every woman over 50 who may exhibit any menstrual vagary or persistent leukorrhea; (6) limit radical operations to those cases in which the disease is confirmed to the uterine tissues. [T. M. T.]

July 26, 1902.

1. Excision of the Knee for Vicious Deformity and Tuberculous Disease in the Adult. VIRGIL P. GIBNEY.
2. Spinal Cord Conditions in Severe Anemias. ARCHIBALD CHURCH.
3. Some Clinical Observations in Intestinal Surgery. A. MORGAN VANCE.
4. Late Manifestations of Hereditary Syphilis in the Nose and Throat. W. S. ANDERSON.
5. A Case of Epithelioma of the Auricle and Auditory Canal. THOMAS R. POOLEY.

1.—Gibney reports in detail 3 cases of **vicious deformity of the knee** with tuberculous disease, in which he performed **excision** of the knee with success, not as a last resort, but in the stage in which fixation and appliances are generally regarded as sufficient. [M. O.]

2.—In **severe anemia** that part of the **spinal cord** which is less well supplied with bloodvessels, the posterior portion, first shows **sclerotic changes**. This follows with intoxication, cancer, etc., also. The symptoms are often obscure, though they may resemble tabes, spastic paraplegia, or multiple neuritis. These symptoms diminish as the anemia is overcome by normal salt solution, iron, tonics, etc. Six case-histories follow. [M. O.]

3.—Vance reports the case-histories of 3 gunshot wounds of the intestine, a strangulated femoral hernia, and a stab wound of the intestine. In every case operation was followed by recovery. He advises catgut for suturing the intestine. **Operation is indicated immediately**, and drainage is necessary. [M. O.]

4.—Late manifestations of hereditary syphilis in the nose and throat occur but rarely. Anderson reports 3 such cases, all females at the age of puberty. He advises tonics, antisiphilitic treatment and local treatment. [M. O.]

5.—This very rare condition, **epithelioma of the auricle and auditory canal**, was observed in a man of 58, having existed 5 years. It was extirpated. Sixteen months later there was recurrence of the growth in the auricle, with metastasis to the cheek. Recovery followed the second operation, excision of both new growths. Details of the treatment are given. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

July 24, 1902. (Vol. CXLVII, No. 4.)

1. Remarks on Cancer of the Uterus. MAURICE H. RICHARDSON.
2. The Present Status of the Operative Treatment of Cancer of the Uterus. W. L. BURRAGE.
3. Operation for Cancer of the Uterus. EDWARD REYNOLDS.
4. Cancer of the Uterus. W. M. CONANT.
5. Intestinal Invagination in Infants and Children with the Report of a Case Successfully Treated by Laparotomy. CHARLES GREENE CUMSTON.

1.—Richardson's article consists of numerous questions with answers as follows: Under what conditions may we expect permanent relief from the removal of a malignant growth? Permanent relief may be reasonably expected

when the disease is confined to the uterus. (2) Is the removal of a malignant growth advisable, even though a cure is not reasonably to be expected, and the general condition of the patient may even be aggravated? No; the removal of the growth under these conditions is not only not advisable, but it is not justifiable. (3) Is the extirpation of the carcinomatous, nonprolapsed uterus to be considered as one of the duties of the surgeon? Yes; it should always be considered as one of the duties of the surgeon. (4) If so, (a) what is the best method; (b) how is it to be done; (c) what special precautions are necessary; (d) what are the dangers and how can they be guarded against? (a) Depends upon circumstances; (b) the vaginal operation and the combined vaginal and abdominal operation; (c) special precaution not to injure the bladder, rectum and uterus; (d) uremia, exhaustion, embolism. (5) What cases, considering location and extent of the disease, are to be operated upon? For radical cure, only those cases in which the disease is confined to the cervix, if in the uterine body; to the cervix, if in the cervix, though a cure may be attempted if a very limited area only of the vaginal membrane is involved. (6) Can a satisfactory diagnosis be made in the individual case as to the feasibility and successful issue of the operation? In 90% a satisfactory diagnosis can be made that the operation is not feasible and that the issue will not be successful. In the remaining 10% which seem favorable, dissection will show that in a considerable number extirpation is not feasible and a successful issue is not to be expected. (7) Is the cure complete with the successful issue of the operation and healing of the incision, or are further therapeutic measures indicated? This last question it is not necessary to answer. [T. M. T.]

2.—Burrage concludes his paper with the following: (1) Absolute cure of cancer of the uterus by operation is rare. By the best methods of operation thus far produced a small proportion (5% to 10%) of cases are well 5 years after operation and a smaller proportion 10 years after; (2) the results of operation for cancer of the body are much more favorable than those for cancer of the cervix; (3) all cases of uterine cancer, except those advanced cases which have developed vesicovaginal or rectovaginal fistula, should be operated on, if not with the prospect of effecting absolute cure, to prolong life and relieve suffering; (4) in the early cases of cancer in which the disease, or so far as can be determined, has not gone outside of the uterus and the patient is in good condition, the best operation is the abdominal operation of Werder, because when operating in this way the operator is able to form a judgement as to the condition of the broad ligament, ovaries and tubes and pelvic lymphglands by sight and touch, and the danger of implanting carcinomatous tissue is reduced to a minimum; (5) in the advanced cases in which the disease has gone outside the uterus, in those patients who are in too poor a condition to withstand an abdominal operation and in very stout patients, vaginal hysterectomy or curetting and cautery are to be chosen. [T. M. T.]

3.—Reynolds divides cancer of the uterus into: (1) Cancer of the body; (2) cancer of the cervix. In operation in the first division, if done early, we may expect a fair percentage, though not a large one, of permanent cures. In early squamous cell cancer of the cervix the percentage of permanent cures is exceedingly small and in adenocarcinoma in this situation it is even smaller, while, in moderately advanced cases in either location, the percentage of permanent cures may probably be left out of view in considering the indication for operation. [T. M. T.]

4.—Conant gives 4 possible results if the radical operation is done: (1) A cure; (2) a relief from present suffering, from hemorrhages, from foul vaginal discharge, and this discharge is so characteristic and nauseating that it is almost impossible to live in the same room or house with a patient; (3) a condition that in some respects is worse, because the disease seems to spread more rapidly after operation; but because it is removed from the vagina there is not the danger of hemorrhage or of foul discharge,

so that, although the disease may be more active, it is not, all things considered, as distressing; (4) death. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 26, 1902.

1. Section on Ophthalmology. Chairman's Address.
FRANK ALLPORT.
 2. Jacques Daviel and the Beginnings of the Modern Operation of Extraction of Cataract.
ALVIN A. HUBBELL.
 3. A New Operation for the Relief of Severe Cases of Rectovaginal Fistula. A. PALMER DUDLEY.
 4. High Amputation of the Cervix versus Hysterectomy for Carcinoma of the Cervix. C. C. FREDERICK.
 5. Operation for Recurrence of Cancer after Hysterectomy. E. W. CUSHING.
- 4.—See Philadelphia Medical Journal, June 21, 1902 page 1107.
5.—See Philadelphia Medical Journal, June 21, 1902 page 1108.

AMERICAN MEDICINE.

July 26, 1902.

1. Lobar Pneumonia in Infants.
WILLIAM FITCH CHELSEA.
2. A Case of Pancreatic Fistula of Three Years' Duration with a Chemical Study of the Fluid Eliminated.
FRANCIS W. MURRAY and W. J. GIES.
3. The Great Importance of Drainage in Bullet Wound of Intraperitoneal Viscera. L. M. TIFFANY.
4. Finger Tips Totally Lost; Their Reconstruction by Sponge Education. GEORGE E. ABBOTT.
5. Dietetic Treatment of Pulmonary Tuberculosis.
D. OLIN LEECH.
6. Iodipin-Phosphor. ROBERTS BARTHOLOW.
7. Medicine and the Universities.
LEWELLYS F. BARKER.
8. Renal Surgery as Practised by Professor James Israel.
NICHOLAS SENN.

1.—Cheney states that lobar pneumonia is a common affection during the first two years of life in San Francisco. He lays especial stress upon the importance of a thorough physical examination in order to determine the diagnosis. For the first few days the diagnosis may be in doubt, but persistent high temperature, persistent rapidity of respiration, the decided prostration and the increasing cough usually make the observer positive within 48 hours. The disease runs a course very similar to that in the adult. It is about a week from the beginning of symptoms before remission takes place. The typical crisis of adult life is quite common. The prognosis is almost invariably a good one. Treatment should be supportive. [T. L. C.]

2.—Murray and Gies report a case of pancreatic fistula of three years' duration, with a chemical study of the fluid eliminated. In conclusion, the writers state that this case is similar to the exceptional one of Körte in showing that after incision and drainage of a true pancreatic cyst, (1) general recovery may be rapid, (2) the function of the pancreas remains normal, (3) patients enjoy excellent health, (4) with the persistent permanent fistula eliminating a transudate containing (a) a minimal proportion of solid matter, (b) a maximal percentage of water and (c) little or no pancreatic enzyme. The writers further state that the case is different from any other on record in the length of time that the fistula has persisted and in the quantity of fluid steadily eliminated from it. [T. L. C.]

4.—Abbott reports 2 cases illustrating a method of constructing totally lost finger tips by "sponge education." After anesthetization, a straight incision is made from side to side under the stump. This gives a straight flap the back of the finger into which the nail develops should any part of the matrix have been left. The end of the stump is then incised into 4 triangular flaps, having the

pices at the center of the nail-flap and their bases at the circumference of the stump. These are then dissected up so that when the finger is held upright they form a crown round the stump except at the back which was occupied by the matrix flap referred to. Into this crown is placed a sponge graft into which the granulations are to grow. The sponge is held in place by adhesive plaster bandaged with gauze and the sponge kept constantly wet with warm normal salt solution. Every three days the sponge and dressing are changed. Excellent results were obtained in both cases. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

March 20, 1902.

Investigations concerning the Central Nervous System in Foot-and-Mouth Disease in Cattle.

G. SCAGLIOSI.

Toxinemia. S. KAMINER.

Concerning Tuberculosis Verrucosa Cutis.

M. JOSEPH and G. TRAUTMANN.

Bone-Charcoal as a Substitute for Iodoform.

A. FROMMER.

Concerning Gall-Stone Ileus. (Conclusion).

KAREWSKI.

1.—The central nervous systems of 3 animals were investigated. These were from a cow which had died of the disease, from the fetus obtained from this cow, and from another cow which was killed 8 days after the fever was past and while there were still aphthæ. The most notable points were that the central nervous system showed marked changes in the ganglion-cells, the Nissl-bodies showing marked degeneration and the whole cell becoming homogeneous in staining and exhibiting vacuole formation. These changes were much less marked in the cow that was killed when practically well. The tendency to become homogeneous was the most striking change in the cells. These changes in the central nervous system strongly indicate that the tendency to paralysis exhibited by the animals is not the result of the general furunculosis, which makes movement difficult, but is chiefly due to the changes in the spinal cord. The latter changes are undoubtedly toxic, and they are more marked in the neighborhood of the most severely involved extremities. Scagliosi believes that, by investigating the nervous system, it may be possible to determine whether the animals had been entirely cured of the disease. He thinks it probable that the meat from such animals would be fit to eat if the central nervous system were demonstrated to be normal. [D. L. E.]

2.—The author gives a general résumé of his studies concerning iodophile reaction in the leukocytes. He believes that the iodine reaction develops in rabbits and guinea-pigs as the result of the action of certain bacteria and their toxins. It can be produced by diphtheria toxin, but not by tetanus toxin; and the effect of the former can be prevented by producing a high grade of immunity. He considers that this throws a side light upon the difference between the action of diphtheria and of tetanus toxins, and perhaps upon the biological differences in the toxins. Clinically, he thinks that the iodophile reaction may be obtained when toxins and bacteria are present in sufficient quantity in the blood; and therefore, considers that there can be no question as to the diagnostic value of the reaction and especially believes that it is of the utmost importance in bacteremia and toxemia, in determining the indications for operation.

[D. L. E.]

3.—The authors first give statistics concerning the cases seen in Joseph's Polyclinic for Diseases of the Skin. Extending all cases of venereal disease, they find that of 26 persons who came under treatment for skin diseases, 11 exhibited tuberculosis verrucosa cutis; 41 of these were men, 9 of them being cabinet-makers, 8 butchers, 5 locksmiths and 4 merchants, the others having various occupa-

tions. It is a notable fact that 3 of the 8 butchers were engaged solely in killing cattle suffering from tuberculosis. When other persons working at the abattoir were investigated, it was found that of 39 veterinarians and 28 stampers, none were known to have been infected. This was probably because they were much more careful than the ordinary workmen. After referring to the literature, the authors decide there is no question that tuberculosis of animals may be conveyed to the skin of man. The fact that cabinet-makers were relatively so frequently affected is probably due to their frequently injuring their hands in their occupation, and often infecting themselves by spitting on their hands. The authors discuss the question whether tuberculosis verrucosa cutis is really tuberculosis, and decide that there can be no doubt that it is. The fact that, as a rule, tuberculosis of the skin is a comparatively harmless disease is not a satisfactory argument for the harmlessness of tuberculosis of cattle, when engrafted upon human beings; for human tuberculosis itself shows very great differences in virulence when it affects different parts of the body. The treatment recommended is 30 per cent. resorcin paste. [D. L. E.]

4.—Bone-charcoal has been recommended as being a valuable substance in the treatment of local tuberculosis. It was used in a large series of cases by Frommer, including tuberculosis of the bones and joints, suppurating glands after removal with a sharp spoon, etc. It often caused painful swelling of the joint, with a rise of temperature, and sometimes produced an acute abscess; and the therapeutic results obtained were not very unsatisfactory. The author, therefore, does not recommend it. He does, however, recommend the use of nonsterilized iodoform-emulsion. The danger of poisoning consists chiefly in the use of sterilized or old iodoform-glycerine-emulsion. He has never seen poisoning from the fresh, nonsterilized emulsion and has never seen any infection from it. He has used it in about 1000 injections. Free iodine is excreted in the urine after the injections, so that the iodoform probably furnishes free iodine or organic iodine compounds in the body. The general condition of the patient often improves after these injections, partly as a result of improvement in the local condition, but partly, also, as a general effect of the organic iodine combinations. [D. L. E.]

4.—Karewski gives a general study of the literature concerning gall-stone ileus and reports a series of cases of his own. He says that the results depend upon the size of the stone. Obstruction may occur, even if the stone is not itself big enough to cause obstruction, through the irritation and reflex contraction which it causes. This irritation may soon cease, and the case go on to natural recovery; or the same process may be repeated at various parts of the digestive tract and there may be numerous attacks within a few hours, days or weeks. They may finally result in death. The irritation may also be so marked as to cause paralysis of the intestine. The intestinal wall may be so damaged as to cause ulceration and perforation or localized peritonitis. The stone may even be discharged externally. Occasionally, a diverticulum is formed, and the stone firmly lodges in it. An exact diagnosis is, as a rule, impossible. The nature of the case has usually been demonstrated by operation or autopsy. Sometimes, however, the diagnosis may be made with considerable probability, if the intestinal obstruction appears shortly after attacks of gall-stone colic; but, even then, rupture of the gall-bladder, etc., may cause extremely similar symptoms. The most important symptoms indicating the occurrence of the condition, however, are that there is evidence of obstruction of the intestine; but that, for some time afterward, feces and flatus are passed, there being fecal vomiting associated for some time, with the natural passage of feces. This symptom is chiefly due to the high seat of the obstruction. Very early fecal vomiting is one of the most important signs, particularly when the general condition

remains fairly good. Obstruction due to disease of the intestine itself also commonly causes more general prostration. Pain is not likely to be extreme, although it increases; the meteorism is also likely to be mild, and not only may it be absent, but the abdomen may be sunken in. These symptoms are, however, noted only in the very beginning; later on, the symptoms common to peritonitis of all kinds will appear. If the diagnosis is made, or if the condition is strongly suspected, the author advises the use, first, of bloodless methods of treatment; these are usually, however, wholly worthless; and operation should be undertaken very early, if there is no immediate result from the medication or physical methods of treatment.

[D. L. E.]

March 27, 1902.

1. An Unusual Cataract Operation. J. HIRSCHBERG.
2. On the Method of Examining the Pupils. O. SCHIRMER.
3. Concerning the Cause of Cancerous Growths. Remarks upon the Communication of Dr. Feinberg in *Deutsche Medicinische Wochenschrift*, No. 11, 1902. O. HERTWIG.
4. How Can we Best Determine the True Borders of the Heart. G. GROTE.
5. An Instance of a Large Psammoma. M. A. LUNZ.
6. A Communication concerning the Treatment of Meteorism. A. OPPENHEIM.

3.—Hertwig agrees with Feinberg as to the general appearances of the objects which he describes, but disagrees with him as to their nature. He has carefully examined Feinberg's preparations himself, and, in the first place, feels absolutely unconvinced that they are distinct organisms which appear in the tissues independently of the human organism itself. The vacuole-like bodies are not probably actual vacuoles, and their parasite-like appearance is probably artificial. (The editor directs attention in a note to Leyden's article, which was abstracted from the *Zeitschrift für klinische Medizin*, Bd. XLIII., Hfte 1 and 2, in which he described similar objects before Feinberg published his article, and discussed at length the question whether or not they are parasites.) [D. L. E.]

4.—Grote has made a study, first of Bianchi's phonendoscope, for the determination of the borders of the cardiac dulness; and, more particularly, has investigated the method of Reichmann and that recently brought forward by Buch, which is really practically the old method of auscultatory percussion. He gives a series of illustrations of the different borders of dulness found upon placing the stethoscope or the instrument devised by Reichmann at different points, and particularly directs attention to the fact that one obtains very similar areas of dulness on exactly similar points of the two sides of the body. He calls especial attention to the fact that the condition of the skin and subcutaneous tissues, and especially the tension of these structures, has the greatest amount of influence upon the figure obtained. As to ordinary auscultatory percussion, he insists that the actual percussion sound is greatly increased by the stethoscope or phonendoscope, while the factors affecting resonance in the interior of the body are extremely slightly or not at all influenced. As a result, the changes due to true changes in resonance are scarcely perceived; while the mere thumping percussion sound is decidedly increased. The author believes that the only satisfactory methods which we have for determining the size of the heart are percussion and palpatory percussion. He refers to a recent article of Oestreich's, in which he shows, from the examination of a large series of bodies post mortem, that it is usually possible to outline the cardiac dulness with great exactness. [D. L. E.]

5.—The case occurred in a woman of 53. It was interesting, because of the fact that there was no good reason for the diagnosis of a new growth, the ocular conditions being absolutely negative; but there had been epileptiform

attacks of cortical character for 2½ years, always beginning in the left leg and becoming general, and associated with loss of consciousness. Not only all ocular symptoms, but also all other symptoms of increased intracranial pressure, were absent. Operation was undertaken because of the epileptic attacks. The tumor was not found. The patient died, 14 months later, from an intercurrent pneumonia; and the autopsy showed a tumor about the size of a horse-chestnut, lying close to the longitudinal sinus, chiefly on the inner surface of the hemisphere, the posterior border being at the upper end of the fissure of Rolando, and the anterior border reaching to the posterior end of the first frontal convolution. The reason that the growth had been overlooked at operation was that it was situated so close to the longitudinal sinus and so largely on the inner surface of the hemisphere. This region had been avoided in the desire to avoid injuring the longitudinal sinus. [D. L. E.]

6.—Oppenheim has made a study of the effect of the injection of physostigmine upon intestinal tympany. His method of work was to cause a marked degree of tympany by inflation through the rectum. He states that the air passes throughout the whole intestinal tract and causes general tympany. If the tympany is made severe enough the animal ultimately dies with failure of the respiration and heart-action and reduction of bloodpressure. In carrying out his experiments, after producing tympany, he opened the abdomen; fixed the colon in the intestinal wound; made an artificial anus, which reduced the abdominal tension somewhat; and then injected physostigmine salicylate subcutaneously. Very soon afterward, the animal ejected feces through the natural anus and continued to drive gas and feces through the artificial one the abdomen soon reaching its normal dimensions. The wound was then closed, and the intestine was once more inflated. The wound was then opened again, and the symptoms were rapidly overcome once more. The author finds that the cause of grave symptoms in these cases is the effect upon the heart, respiration continuing in fatal case for a long time after heart-action has absolutely disappeared. The effect of atropine is weaker, in accordance with the lesser development of the brain of the animal. Small doses of atropine increase peristalsis; large dose cause paralysis of the intestine and produce tympanites and constipation. Physostigmine has a cumulative action while atropine is rapidly excreted. To a certain extent atropine antidotes the physostigmine-action; the contrary is not true. Because of the recent excitement over the use of drugs for the control of meteorism, Oppenheim insists upon the fact that the physostigmine must not be depended upon when meteorism has persisted for a long time; if the muscle fibers of the intestine have become completely atonic, it will have no effect. He especially directs attention to the fact that physostigmine was effectual in his experiments only when the intestine was incised and the tympanites was, to a certain degree, already relieved through this procedure; when, however, the intestine was very greatly stretched, the effect would probably be *nil*.

[D. L. E.]

BERLINER KLINISCHE WOCHENSCHRIFT.

March 31, 1902. (39 Jahrgang, No. 13.)

1. Arrow Poisons from German East Africa. L. BRIEGER.
 2. Atoxyl, a New Arsenic Preparation. WALTHER SCHILD.
 3. The Bacillus of Syphilis. MAX JOSEPH and PIORKOWSKI.
 4. The Mechanical Effect of Respiration and Circulation. BUTTERSACK.
 5. Idiopathic Dilatation of the Esophagus, Without Anatomical Stenosis. THEODOR ROSENHEIM.
- 1.—From his examination of arrow poisons used by the Wakamba tribe, Brieger isolated a white glucoside, $C_{20}H_{40}O_{10}$ in action a heart poison like digitalis. In animals death occurs with dyspnea, shrieking and convulsions. The fl.

symptoms are vomiting and fibrillary contractions of the muscles. When large doses are dropped into the eye, corneal anesthesia and dilatation of the pupil result, followed by contraction. In small doses the pupillary contraction may last hours, without loss of corneal sensation. Brieger found poisons in two plants also employed for arrows, the *canthera abessynica* and the *candelabra euphorbia*. These give a crystalline and an amorphous poison; the former is amorphous and acute in action; in the latter the poison is chronic in effect, causing infiltration and necrosis. [M. O.]

2.—Atoxyl, $C_6H_5NHAsO_2$, is a white odorless powder, of a slightly salty taste, soluble in warm water. Internally it caused gastro-intestinal symptoms; with hypodermic injections symptoms of cumulative poisoning occurred. The only contra-indication to its use is organic heart disease. Hypodermic injections of a 20% solution of atoxyl were given daily with good results. In this fashion a high dose of arsenic can be given without any bad effect. It is of great service in chronic dermatoses, alopecia areata, Duhring's disease, sarcoma, chronic exfoliative dermatitis, xanthoma diabeticum, psoriasis and lichen ruber, 75 cases being reported. Treatment lasted from 3 to 4 weeks and ended in recovery. The best results were achieved in psoriasis and lichen ruber. [M. O.]

3.—In their experiments, Joseph and Piorkowski used fresh seminal fluid from patients who had been syphilitic for from 5 weeks to over 3 years, cultivating it upon normal placenta. Colonies of bacilli developed which were then studied in detail upon agar, blood serum, etc. The same bacillus was found in the 22 patients examined in this way. In 4 normal individuals, who had never had any venereal disease, no such bacilli were found. In men who had contracted syphilis over 3 years before, the bacilli were as a rule not found, though in one case, syphilitic for 5 years, they were still present. They were also found in the blood of a syphilitic whose seminal fluid contained no spermatozoa. Blood serum of syphilitic patients caused the agglutination of the bacilli. [M. O.]

4.—As the abdominal viscera move with respiration, it is indirectly the cause of renal calculi, gall-stones, splenic and pancreatic disease, etc. The respiratory movements act as cardiac massage, sending out blood and lymph, and regulating the growth of bone. Different occupations determine a hyperemia of different abdominal organs. Forced respiration and massage may overcome this condition. Absorption is also increased by deep respiration. The regular pulsating vibrations of the entire arterial system regulate the function of the various organs. The continued vibrations of the circulation are a mechanical stimulation to the cells, causing them to perform their varied functions. Increasing the blood pressure causes an increase in functional activity. [M. O.]

5.—Rosenheim has collected over 100 cases of idiopathic dilatation of the esophagus, formerly considered a rare affection. Of the 9 cases observed by him, 4 were relatively benign. Some disturbance of the neuromuscular apparatus of the esophagus occurs. A functional anomaly then becomes an irreparable pathological process. Gastric symptoms are first noted, attention only later centering upon the esophagus. The passage of a sound, the examination of food removed from the dilated esophagus, and the esophagoscope show the dilation of the esophagus. Röntgen rays may aid in the diagnosis. When stagnation of food occurs, the stricture is near the cardia. The prognosis depends upon the age of the dilatation and the presence of cardiospasm. In the treatment the esophagus must be washed out regularly with a $\frac{1}{2}$ to 2-1000 argentic nitrate or carbon dioxide solution. Rest in bed and gavage are necessary. Nutritive enemata may be useful for a few days. When cardiospasm is present, a metal sound should be left in place. A good stimulating diet, bromides and perhaps morphine are needed in nervous patients. In severe cases gastrostomy and sounding without end may become necessary. [M. O.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

February 18, 1902.

1. Hypophrenic Pain and Neuroses of the Solar Plexus. A. HOFFMANN.
2. A New Lung Test. PLACZEK.
3. A Case of Acute Vertebral Osteomyelitis. A. SCHOENWERTH.

4. Treatment of Phimosi. F. WENZEL.
5. Comparative Studies Upon the Coagulation of Casein Through the Lab Ferment and Lactoserum. P. MUELLER.
6. A Case of Primary Carcinoma of the Lung. P. BOETTGER.
7. An Iron Ring Thrust Over the Penis. K. SUDHOFF.
8. Contribution to the Dietetics of Disease of the Stomach and Intestines. A. SCHMIDT.
9. Statistical Investigations Upon the Results of Syphilis. M. MATTHES.
10. The Union of Physicians for the Enforcement of the Social Rights. M. MILLER.
11. Eightieth Birthday of Adolf Kussmaul. L. EDINGER.

1.—Hypophrenic pains are exceedingly common. They vary in character and their significance is often difficult to elucidate. The most important are the spontaneous pains. In general it may be said that they are the result of hepatic conditions, and then, in order, of pancreatic, gastric and splenic conditions. Diseased conditions which affect the mucous membranes alone are situated in the interior of the parenchymatous organs and rarely produce pain. If the muscular structures of the hollow organs are involved, the pains are colic-like; if the peritoneal surface, they are localized; if the retroperitoneal structures, they radiate. In the severe neuroses, especially hysterias and hypochondriasis in which the action of the nervous system is increased, slight disturbance may give rise to extensive irradiating pains, but they are exceedingly irregular. In these conditions, hepatic, gastric and splenic and pancreatic diseases may give rise to irritating pains. In cases of hypophrenic abscesses the irradiation of the pain often involves the right and left shoulders, but the usual situation is the right and left side, due to associated pleurisy. It is possible that in some cases we may have neuroses of the solar plexus, and these may be betrayed by the existence of intestinal or renal symptoms. As a matter of fact, cases have been recorded in which there has been polyuria or constipation or diarrhea. In certain obscure conditions, therefore, a suspicion of this disease may be justified. He mentions the case of a man, 71 years of age, who had severe pains in the abdomen for months. There was constipation, polyuria, and the urine was moderately decreased in specific weight. Thirst was not abnormal. The attacks of polyuria were always associated with attacks of pain that somewhat resembled neuralgia. Another patient, a man of 45, suddenly developed extreme constipation, tenderness in the upper portion of the abdomen which irradiated throughout the entire abdominal cavity. He had extreme polyuria without increase in thirst. These cases are possibly instances of neuroses of the solar plexus. [J. S.]

2.—Placzek, in view of the unreliability of the ordinary methods of determining whether a child was born living or dead, suggests the following. The throat is opened, the trachea firmly ligated, the skin dissected away from the breast, and then a trocar and cannula thrust through an intercostal space for a distance of 1.5 cm. The cannula is provided with a stop-cock, the trocar is withdrawn and the cannula then connected with a mercury manometer. The operation must be done on both sides at once. If the mercury rises in the manometer, the lung is stretched and the child has breathed. If, however, the mercury does not rise, the child has not breathed. This method has also the advantage that the lungs may subsequently be tested for floatability. [J. S.]

3.—The patient, a man, 27 years of age, suddenly had a chill and pain in the lumbar region which finally became severe. This condition continued and a diagnosis of paranephritic abscess was made. Nothing, however, was found. The patient felt much better after the operation, refused to complain of pain, developed some edema of the legs and tympanites, then became delirious, had an urticaria-like exanthema and died in a state of coma. Softening and partial solution of the lumbar vertebræ with some perivertebral pus was found at the autopsy. A pure culture of the staphylococcus aureus was obtained. The patient presented all the typical symptoms. There was tenderness over the spinal column, some pain in the abdomen, but the symptoms were not sufficiently characteristic to render it possible to make a precise diagnosis. A small furuncle had

existed on the wrist and this was probably the starting point of the infection. [J. S.]

4.—Wenzel believes that phimosis in young children is best treated by simple dilatation and retraction. Wenzel has devised an ingenious operation which involves an oval incision. [J. S.]

5.—Müller has endeavored to determine whether the precipitation of casein by Bordet's lactoserum is due to the action of a ferment. He has found as the result of experiments that the activity of the serum is due to the presence of calcium or barium salts. There is no separation of albuminoid bodies from the casein. The active principles would be precipitated by acetic acid and appeared in the form of the principle united with unchanged casein. This union does not require the presence of calcium salts. Calcium-free paracasein does not bind the precipitins. If the lactoserum is heated to 70°, it not only becomes inactive, but inhibits the action of the unheated serum. If, however, the precipitin has been united with the casein, the inhibitory qualities cease. The inhibitory action is not prevented by the addition of calcium salts. The heated serum has the quality of dissolving the lactoserum precipitin if brought in contact with it for a sufficient number of hours. The heated serum also inhibits the coagulating quality of the lab ferment. There seems to be reason to believe that the inhibition is due to the binding of the casein and the inhibitory substances, which prevents the ferment from being acted upon by the coagulating agents. These bodies in the serum resemble the agglutinoids and precipitoids, and correspond closely to receptors and haptofors. [J. S.]

6.—A man of 68 complained for 2 years of pain and oppression in the right side, which later was associated with cough and pain in the chest. There was a very slight elevation of temperature. The condition gradually progressed, although very slowly. There was some evidence of consolidation of the lung, considerable pain and gradual emaciation. The sputum was scanty, but somewhat bloody. He finally died and at the autopsy a carcinoma was found in the lower lobe of the right lung. [J. S.]

7.—Sudhoff reports the case of a man who drew an iron ring over the penis. This caused constriction and it was necessary to remove it by means of a file. [J. S.]

8.—The dietetics of intestinal disease are not as satisfactory as in gastric disease. In the first place the data obtained by experiments are very incomplete. Certain points are, however, established. In all cases of intestinal disease in which there is an irritated condition, the nutriment must be in a state of finest division. Insoluble drugs should not, therefore, be given recklessly, particularly the preparations of tannin. In chronic constipation, however, an irritating diet, containing fairly large particles and irritating to the intestines, should be employed. Particularly large amounts of fat should be added to the diet. In irritable cases, on the other hand, we should be careful to give foods that are most easily digested. Milk is valuable, but a certain number of patients exists who cannot support milk. Often, however, this inability to take milk can be avoided by the addition of various substances, particularly such as interfere with the decomposition of milk. Schmidt has therefore employed substances that do this, particularly salicylic acid, in doses of .25 to .5 gram to each 2 liters of milk. This must first be rubbed with a small quantity of milk and then dissolved in the total quantity. It is often well supported by patients. In many cases an antiseptic diet appears to be desirable. There are 2 points to which Schmidt calls especial attention, the first of these is that digestion of fat does not particularly disturb in many forms of chronic gastric disease; second, that frequent observation of the fermentability of the feces is valuable. If no immediate fermentation occurs, but after 12 to 24 hours in the incubator it is considerable, the carbohydrates should be prescribed for some time. If, however, fermentation occurs immediately, the reaction of the stools is alkaline, the odor offensive and hydrogen sulphide is present, then the opposite diet is required. [J. S.]

9.—Matthes discusses the occurrence of disease of the central nervous system as a result of luetic infection. In 698 cases 7 have developed tabes dorsalis. As, however, a number of the cases have been infected as recently as 5 years ago, it is possible that many more will subsequently develop the disease. Two hundred and twenty-three cases,

however, were infected earlier than 1875, and of these 4 have developed tabes, that is to say 1.8%. The figures for men are somewhat higher than for women. Matthes therefore concludes that the likelihood of developing tabes after syphilitic infection is not greater than 2% for all classes, or than 3.5% for men. In regard to general paresis the statistics show that for the 698 cases there were 8 cases of paresis; for the 223 cases infected during or before 1875 there were 4 cases, the relative percentages being 1.1 and 1.8. The figures are therefore essentially the same as for tabes, and the chance of any infected person developing either of the diseases is about 3.6% for both sexes, or 7% for males. Although there were only 18 cases of nervous disease developed in 698 cases, or 2.6% altogether. In regard to the mortality of syphilitics it was found, after carefully computing the expectation of life of the 698 recorded cases, that 86 should have died; as a matter of fact 149 had died; that is to say, the mortality instead of being 15% was 26%. It follows, therefore, that syphilitic infection reduces materially the expectation of life. If only the tertiary cases are computed, the mortality is considerably higher. [J. S.]

10.—Miller discusses the preparation of certificates for workmen who have become incapable of work and therefore entitled to insurance. As this is a matter which is governed largely by the internal law of Germany, it is not adapted to an abstract. He insists that the physician treating the patient should be the one to write certificates regarding his or her inability to work for the purpose of securing the stipend from the invalid workmen societies. [J. S.]

11.—Edinger contributes a sympathetic biography of Kussmaul in honor of the 80th. birthday of the latter. [J.S.]

February 25, 1902.

1. Preventable Complications of Appendicitis. A. OCHSNER.
2. Experimental Contribution to the Etiology of Thrombosis of the Cranial Sinus. A. DOERR.
3. Histogenesis and Comparative Studies Upon Tumors. DISSELHORST.
4. An Erroneous Diagnosis Based Upon the Gruber-Widal Reaction. F. LOMMEL.
5. A Case of Complicated Injury to the Skull With Aphasia. Covering the Defect by Bone Plaster. H. KAPOSI.
6. Contribution to the Casuistry of Acute Circumscribed Edema. Epileptic Attacks in the Course of Hydrops Hypostrophos. C. v. RAD.
7. A Contribution to the Ambulant Treatment of Tuberculous Diseases of the Joints of the Lower Extremities. WAGNER.
8. The Sterilization Apparatus for Dressings of Dr. R. Klien. J. WEIGL.
9. Position of the Patient in Operations Upon the Biliary Tracts. F. BERNDT.

1.—Ochsner reports 17 cases of appendicitis which were treated according to the following method. As soon as the symptoms have developed, the patient receives absolutely no nourishment by the mouth. This causes a strict localization of the process. At the same time the stomach is regularly washed out, the patient receives minute quantities of hot water by mouth, and nutrient enemata of about 4 oz. are given every 4 hours. Patients are not given laxatives or bismuth. He employs this method routinely in all patients that come to him, and operates only after the acute symptoms have subsided. He finds it effective not merely in the simple catarrhal forms, but also in cases of gangrenous appendicitis. One patient died of diffuse peritonitis. He came under treatment 9 days after the onset of the symptoms with the signs of perforative appendicitis. Under treatment, however, he improved so much that there seemed reason to believe that the diagnosis was mistaken. Operation, however, proved it to have been true and the patient died of diffuse peritonitis. In 3½ years Ochsner has operated upon 620 patients. In 21 of these the diagnosis was apparently complicated with diffuse peritonitis. Four were moribund and died before operation could be performed; 17 were operated upon after the above treatment. Of 61 patients 8 died. One hundred and ninety-two had perforative or gangrenous appendicitis, and of these 9 died. Four hundred and seven were operated upon during the interval or during the first 36 hours. Of these 1 died. In addition a number of patients

with acute appendicitis were treated by this method and subsequently refused operation. Ochsner believes that in the great majority of cases the best results are obtained by preliminary treatment. [J. S.]

2.—Dörr reports 2 cases. A man, 23 years of age fell down some steps while drunk and injured his head in the region of the right ear. The following day he had bloody vomiting and died. At the autopsy a considerable amount of blood was found in the subdural and subarachnoid spaces surrounding the entire brain. There were numerous fissure fractures in the posterior cranial fossa and in other parts of the base of the skull. In both sigmoid sinuses there were gray clots. The second patient, a man of 38, had fallen from his bicycle. On the following days he was able to continue his practice, but on the twelfth day he was brought to the clinic with a history of having been taken sick the previous night and having had a severe convulsion. The patient grew steadily worse: there were albumin and casts in the urine, the convulsions became more frequent and more severe, and the patient died. At the autopsy an infiltration of blood was found in the neighborhood of the external occipital protuberance, the superior longitudinal sinus contained a thrombus and the veins emptying into it were also occluded. The other sinuses of the brain also contained more or less firm clots. Both cases, therefore, represent thromboses of the cranial sinuses possibly secondary to the injuries. Dörr, therefore, experimented upon 6 dogs, striking them vigorous blows on the head with a mallet, the skin being protected by a piece of heavy leather. Two died immediately and one showed no bad effects. The other 3 were considerably depressed for some time, one of them lying paralyzed and only partially conscious for many days. One was killed on the eighth day accidentally, and thrombi were found in the lateral sinus. The other 2 dogs had only slight symptoms of disease, and showed slight thrombus formation in the sinus without occlusion of the lumen. Microscopical examination failed to show any injury to the endothelium of the sinuses. [J. S.]

3.—Disselhorst discusses some of the theories that have been suggested for the origin of tumors. He prefers the infectious theory, but admits that as yet we have no proof of its existence. He has collected some of the statistics of tumors of the domestic animals and calls attention to the fact that in dogs they are much more common than in horses or cattle. The percentage being 4.7% for dogs, 2% for cattle and 1.3% for horses. Carcinomata are much more frequent in dogs than any other form of tumor, forming 40% of all cases. In horses they form only 6% and in cattle 2.7%. Sarcomata, on the other hand, are much more frequent in horses than in cattle. It seems questionable whether we are to ascribe this to any difference in the diet. [J. S.]

4.—Lommel describes the case of a woman, 32 years of age, who had slight chills after the birth of her child and then severe fever. Albuminuria was present, but there was not sufficient evidence of puerperal infection. The Widal reaction was made with the blood and it occurred in the course of 5 minutes in a dilution of 1 to 80. There was a slight roseolar eruption and a diagnosis of typhoid fever was therefore made, although respiration and pulse were both abnormally rapid. At the autopsy septic phlebitis was found in the uterus and there were no evidences of typhoid infection. Apparently no cultures were made. After discussing the various possibilities, Lommel supposes that there was a severe infection with the bacterium coli which produced enough agglutinin to cause the Widal reaction. [J. S.]

5.—Kaposi reports the case of a boy, 19 years of age, who was struck on the head. Fourteen days later a small abscess in the region of the injury was opened and the patient remained well. However, a suppurating sinus persisted and finally, 4 months after the injury, the patient fell unconscious. Examination showed a sinus penetrating the skull; this was opened and a large abscess of the brain evacuated. There was considerable prolapse of the brain, but the patient finally recovered with some defect in the skull. Two years later the patient, in a quarrel, was beaten on the head with a club, receiving a depressed fracture of the skull just over the right ear. It was found that this communicated with the previously existing defect; the fragment was elevated and the patient made a satisfactory recovery. It was decided, therefore, to close the opening by an osteoplastic operation which was successfully accom-

plished. The aphasia, however, which the patient developed shortly after the second injury, remained constant. There is reason to believe that in these cases it is probably desirable to cure the defect in the skull in order to prevent such results as actually occurred in this case, or other conditions, such as epilepsy, pain in the head, etc., which often occur. [J. S.]

6.—A man, 47 years of age, without neuropathic heredity or syphilitic infection, and who had suffered from rheumatism for 3 years, had an attack of epilepsy. Two months later he had 2 similar attacks and frequently suffered from vertigo. A month after the last attack he developed edematous swelling of the head every morning, which lasted for 4 or 5 hours. The skin was slightly reddened, the swollen area was tender and pitted upon pressure. The patient suffered from palpitation of the heart, his voice was hoarse and aphonic, but otherwise he was in good condition. The knee reflexes were slightly exaggerated, there was bradycardia, no albuminuria and otherwise he was normal. This condition lasted a month and resisted all medication, although the attacks of vertigo yielded to bromides. In about a month the swelling of the face disappeared and was replaced by pains in the epigastrium and a sense of swelling in the stomach. It was impossible for the patient to swallow during the persistence of these sensations, and there was often extreme nausea. A year later he reappeared, stated that he had improved slightly and it was noted that the heart had become normal. In 6 months he again returned to the hospital with pronounced edema of the legs which disappeared in the course of a few days. The case is one in which the typical symptomatology of angioneurotic edema was united with epilepsy, and this appears to be exceedingly rare. [J. S.]

7.—Wagner believes that the 3 important elements in the treatment of tuberculous joint disease of the lower extremities consist of rest, the relief of pressure and the extension of the joint. At the same time there must be a general hygienic management of the case. In order to accomplish this it is necessary to treat the patients as ambulant cases. Wagner recommends Hesse's apparatus as most satisfactory for accomplishing these indications, although he admits that any form of fixed bandage is equally serviceable. Among the hygienic measures mud-baths may be of considerable value. A particular form of tenacious mud can be wrapped around the joint and fixes it satisfactorily, although in the bath, unless it is protected against the effect of the water, it soon becomes soft. Patients do very well under this treatment. [J. S.]

8.—Weigl recommends Klien's apparatus for sterilizing dressings. He has made a number of experiments with infected and noninfected dressings and found that they were thoroughly sterilized after three quarters of an hour. The apparatus is cheap and is quite sufficient for small hospitals. [J. S.]

9.—Berndt suggests that in operations upon the biliary tracts a cylinder of from 12 to 15 cm. in diameter should be placed under the back of the patient in the region of the last dorsal and first lumbar vertebræ. This renders the field of operation much more accessible. [J. S.]

March 4, 1902.

1. The Relation of Arteriosclerosis to Disease of the Brain. WINDSCHEID.
2. New Clinical Point of View in the Consideration of Arteriosclerosis. K. GRASSMANN.
3. Contribution to the Knowledge of Hyperkeratosis Lacunar Pharyngis. H. ARNSPERGER.
4. The Sero-antitoxicity of Alcohol in Tuberculin, and the Eventual Employment of Alcohol in the Treatment of Tuberculosis. ST. MIRCOLI.
5. Chronic Swelling of the Bronchial Glands and Apical Tuberculosis of the Lungs. ESSER.
6. Further Communication Upon Aspirin. S. MERKEL.
7. A Contribution to the Knowledge of Acquired High Position of the Scapula. O. BENDER.
8. A Case of Carcinoma of the Stomach With Marked Proliferation of the Elastic Tissue, and the Relation of These Tissues in the Stomach in Various Ages. A. MEINEL.
9. A Plague Epidemic on a German Steamship. S. OBERNDORFER.
10. Neurasthenic Crises. A. DIEHL.
11. Jolles' Clinical Ferrometer. E. BOETZELEN.

12. Comparison of the Methods of Stas-Otto and Kippinger for the Recognition of Alkaloids. J. WEISS.
13. A Brief Remark Upon Blood Poisoning and Amputation. H. WOLFF.
14. Comparison of the New Medical Examiners' Unions in Germany and Austria. R. GOTTLIEB.

1.—Windscheid describes, as rather characteristic of **arteriosclerosis of the brain arteries**, the following group of symptoms. First, fatigue and exhaustion of the mind, particularly in patients who have been accustomed to intellectual occupations, and a cessation of originality in the work. The symptoms of disease are headache, vertigo, impairment of memory, the three together forming a significant group. The headache is usually frontal, lasts all day, is increased by bending or any condition that increases the bloodpressure. The vertigo is usually slight and almost never gives rise to falling. The impairment of memory affects particularly the objects concerned in daily occupation of the individual. Often these patients are markedly intolerant for alcohol. The explanation of these symptoms is very difficult. They are probably all due to defective circulation, but just how this defect is brought about is difficult to understand. Not infrequently injury or something giving rise to sudden exceptionally increased brain pressure may be an exciting cause, so that the condition in a way simulates traumatic hysteria. [J. S.]

2.—Grassmann insists that in arteriosclerosis the chief lesion is diminished elasticity of the bloodvessels. There is increased bloodpressure. The causes generally accepted are severe muscular labor, syphilitic heredity, alcohol, which is now supposed to act secondarily, and acute infectious diseases. The sclerotic condition may involve only certain groups of arteries. In regard to the diagnosis it is now becoming possible to see this condition in certain groups of arteries with the Röntgen rays. Usually both heart ventricles are enlarged, and, when the coronary arteries are involved, certain changes take place in the heart sounds, especially the first sound, and cardiac symptoms may appear. Among the interesting symptoms are intermittent claudication and diabetes mellitus due to sclerosis of the pancreatic vessels. The prognosis is not so unfavorable, the administration of iodine in small doses for long periods of time being often of great service. There is not sufficient evidence that the withdrawal of calcium from the diet is especially advantageous. [J. S.]

3.—Arnsperger reports the case of a girl, 17 years of age, who frequently had inflammation of the tonsils. Upon one occasion this persisted and she noticed white points upon the tonsils. When examined in the clinic, a diagnosis of **hyperkeratosis lacunaris** was made. The patient had fever at first; the temperature soon became subnormal. The whitish spots in the lacunæ continued to increase in size. The tonsils were therefore thoroughly cocaineized and the plugs removed with a sharp curette. Subsequently some papillomatous growths appeared upon the pharynx which were also removed and the patient made a satisfactory recovery. The plugs consisted of masses of flat epithelium which appeared to have undergone chemical change. [J. S.]

4.—Mircoli has tested the toxicity and antitoxicity of the serum of patients suffering from tuberculosis who have been treated with Maragliano's tuberculin. He found that the toxicity diminished during convalescence. He was interested in noting the serum of certain persons who were in the habit of taking alcohol to excess. He found that their serum had a more antitoxic effect than that of normal individuals. This observation seemed to show that alcohol could increase the antitoxicity of the serum of persons against the effects of the tubercle bacillus, and that persons suffering from tuberculosis who are chronic alcoholics derive more benefit from Maragliano's serum than do normal individuals. In order to determine whether these conclusions were correct, he studied the longshoremen of Genoa, who number about 5000, are nearly all of them strong drinkers and who are exposed to inclemency of the weather, the inhalation of dust and other conditions that predispose to tuberculous infection. Tuberculosis is not common among them. Mircoli reports the case of a man who has suffered from tuberculosis for about 30 years, and who has had hemoptysis only for about 6 years. He drinks large quantities of alcohol and continues in fair health, capable of performing severe work. It follows that **alcohol is a valuable drug in the treatment of tuberculosis**. [J. S.]

5.—Esser calls attention to the fact that in many cases of **tuberculosis of the bronchial glands** those glands on the right side are more involved than those on the left. This predisposes the apex of the right lung to tuberculous infection. [J. S.]

6.—Merkel calls attention to the value of **aspirin** which is of great use in all conditions in which salicylic acid can be employed. It has good effect in neuralgia and seems to be a moderate analgetic. It is chemically identical with acetyl salicylic acid. It may be given in the form of tablets. [J. S.]

7.—Bender reports a case of **unilateral high position of the scapula**, the upper portion being thrown slightly outward. The scapula was not movable as it normally is. From an X-ray examination there was reason to believe that the acromion process was enlarged. The condition represents one of the rachitic deformities of the skeleton. The treatment consists of exercises and, if necessary, the resection of the coracoid process. [J. S.]

8.—Meinel reports a case of **carcinoma of the stomach** in a woman, 70 years of age. The patient had had persistent vomiting for months before her death, which had produced profound cachexia. There were multiple metastases to the spleen, liver and peritoneum, and there was marked proliferation of the connective tissue. The wall of the stomach showed profound change. Microscopical examination showed the presence of wavy fibers in great numbers, which proved to be composed of elastica. This proliferation of elastic fibers was also found in the lymph-glands and the metastatic nodules. Meinel has examined the stomachs of persons varying in age from 3 days to 68 years. In the early stages there was little proliferation excepting in bloodvessels, a fine reticulum, however, existed in the muscles. As age advances, this gradually increases until an appearance is produced not dissimilar to that found in the case of carcinoma. [J. S.]

9.—Oberndorfer reports an epidemic of **plague** that occurred upon a ship sailing from Europe to South America and touching at Rio de Janeiro, at which city plague existed. The first patient, a girl of 7 years, developed severe pains, moderate temperature, enlargement of the inguinal glands, giving the characteristic picture of plague. The infection probably took place in Rio de Janeiro; there was no reason to suppose that the rats on board the ship were infected. The second patient, a man, 21 years of age, also showed typical symptoms. All persons who had been brought into contact with the invalids were then immunized by serum injections, but the ship was obliged to undergo numerous and exasperating quarantine regulations. [J. S.]

10.—Diehl reports some cases of **neurasthenia**. One patient from time to time had attacks in which he felt that it was worthless to attempt to do anything and his mind was filled with erotic ideas. He became suspicious of his friends and particularly of his wife, became violent and finally shut himself in his room, where he walked for an hour, talking loudly. Subsequently he repented his conduct and could not understand why he had behaved so. Diehl has received accounts of similar attacks from other cases of neurasthenia. In one the patient upset a table, tore his handkerchief to shreds and then shut himself in a room and refused to pay any attention to the appeals of his relatives. These conditions the author regards as neurasthenic crises. They resemble somewhat the states of imperative activity that occur in neurasthenia. [J. S.]

11.—Boetselen describes **Jolles' clinical ferrometer** and has performed a number of experiments with it, using solutions in which the quantity of iron was known, in order to determine its accuracy. He found that the results were remarkably exact, and therefore recommends the instrument for clinical investigations. [J. S.]

12.—Weiss has compared the **methods of Kippinger and Stas-Otto** for the recognition of alkaloids. Kippinger's method consists of the formation of a combination of tannic acid and the alkaloids in conditions that prevent the solution of the albumins. The method of Stas-Otto consists in the extraction of the poison with acid alcohol which prevents any marked solution of the albumins. He found that the latter method invariably gave better results with animals into whom known quantities of the alkaloids strychnine, morphine and atropine has been injected. [J. S.]

13.—Wolff complains that Doerfler has changed his views regarding amputation in blood poisoning without being willing to admit it. [J. S.]

14.—Gottlieb believes that the recognition of the relation of the theoretical and the practical clinical work in medicine constitutes one of the advantages of the educational methods and examinations in Austria. [J. S.]

ARCHIV FUER KLINISCHE CHIRURGIE.

1902. (Volume 65, No. 4.)

32. Operation on the Gasserian Ganglion.

ERICH LEXER.

33. An Orthopedic Table. FRANZ STAFFEL.

34. The Symptoms of Operable Brain Tumor.

ERNST VON BERGMANN.

35. Experimental Investigations Upon Epithelial Metaplasia.

PAUL EICHHOLZ.

36. The Static Relations of the Femur.

CESARE GHILLINI and SILVIO CANEVAZZI.

37. Cancer in Man and the Different Domestic Animals.

ANTON STICKER.

38. Artillery Wounds in the Boer War. A. HILDEBRANDT.

32.—Of von Bergmann's 15 operations upon the Gasserian ganglion, but one patient, a woman of 73, died of meningitis 4 days after operation. The autopsy revealed a psammoma at the origin of the fifth cranial nerve, including the seventh and eighth cranial nerves. Facial neuralgia was the only symptom. This condition may explain some cases of recurrence of facial neuralgia after extirpation of the Gasserian ganglion. Lexer has had a special instrument constructed for holding the dura away from the field of operation. The great dangers of the operation are hemorrhage and loss of cerebrospinal fluid. The relations of the ganglion differ in different individuals. Twelve of the 15 patients are now perfectly well. Keratitis occurred in 3, conjunctivitis in 2 cases. In 5 cases paralysis of the eye muscles followed operation. The final results gave 9 perfectly well patients. Lexer believes that for severe neuralgia, uncontrolled by less radical means, Kraus' operation, while dangerous, is successful. A table of 201 cases of extirpated Gasserian ganglia has been prepared by W. Türk. Of these, 167, 83%, survived. [M. O.]

33.—Staffel describes an orthopedic table which he has constructed, especially adapted for applying bandages to the body in suspension, for the reduction of scoliosis, etc. Its manifold purposes are well shown by photographs. [M. O.]

34.—von Bergmann's first case was a sarcoma of the frontal lobe in a man of 34, permanently cured by extirpation of the tumor. Three fatal cases follow. In a child of 4½ years, a tumor was removed from the motor region on the left side, yet death followed from shock. A woman of 44 bled to death following operation for the removal of a cavernous angioma of the left hemisphere. The third tumor was in the motor region, in a woman of 40. After its removal purulent leptomeningitis caused death. The history of a cystosarcoma of the right hemisphere follows, in a girl of 11, who lived 5½ months after operation. His last reported case was that of a girl of 12, from behind whose right ear a cyst was extirpated. She recovered and is now perfectly well. [M. O.]

35.—Eichholz experimented upon human beings, replacing mucous membrane by skin, showing that the epidermis could not morphologically replace mucous membrane, its peculiarities separating it from the mucous membrane. The hair and glands of the skin appear to have been more injured than the epidermis itself. Functionally, however, the epidermis is perfectly able to take the place of the oral or vesical mucous membrane, as neither saliva nor urine excoriate it. But the gastric juice destroys its upper layers. Then follows a series of experiments in which mucous membrane replaced skin. From these investigations Eichholz concludes that columnar epithelium becomes so like skin as not to be differentiated from it. In the epidermoid changes of the transitional epithelium a metaplasia cannot be surely excluded, though in most cases there occurs an ingrowth of the epidermis from outside. Cylindrical epithelium, on the other hand, can never become epidermis. When epithelial changes occur upon an organ normally bearing cylindrical epithelium, this is due to columnar epithelium growing over it or to germs scattered upon it. [M. O.]

36.—Ghillini and Canevazzi answer Bähr's recent article upon the static relations of the femur, in which he disputes Wolff's "crane" theory in the development of femoral de-

formity. They state that such deformity depends upon whether changes occur in the bone or in the soft parts. When the bone is affected, pressure, extension or operation may be necessary to overcome the deformity; when the deformity is due to a loss of muscle tone or of nutrition, massage, electricity, bathing and some form of apparatus are indicated. When both factors co-exist, both methods of treatment may do good. [M. O.]

37.—Sticker has collected an immense number of statistics upon cancer in the domestic animals. In man the integument is most often affected primarily. The skin shows primary cancer in 80.9% of dogs, 62% of cats, 34.7% of horses and 11% of cattle. In horses the penis is most often diseased, in dogs the mammary gland. But skin cancer is not rare in horses or dogs. Urogenital cancer occurs in 56% of cattle, 23% of horses and 8.7% of dogs. In cattle alone is cancer of the uterus most frequent. Cancer of the digestive tract occurs in 19.4% of cattle, 12.2% of horses, 14.2% of cats and 4.1% of dogs. In dogs the liver is most affected. Cancer of the respiratory tract affects 23.3% horses, 19% cats, 10% cattle and 2% dogs. In horses the nose is most commonly diseased, in dogs the lungs are generally affected. In horses, dogs and cattle the lymphglands are frequently secondarily involved; the next organ in frequency being the lungs, liver, spleen and diaphragm following. The majority of cases occur in middle-aged animals. While twice as many male horses have cancer, 4 times as many female dogs and cattle are affected. Females also predominate slightly among cats. [M. O.]

38.—The English artillery in the Boer war did very little injury to the Boers, the highest figure showing 21% of the wounded from bombs and shrapnel. Many contusions resulted. The entrance wounds caused by shrapnel were small. The bullets often remained in the tissues, which were more severely injured than by small caliber bullets. Much hemorrhage occurred, and peripheral nerves were frequently hurt. Skull wounds were never perforating, as was noted in small caliber shots. The lungs were often affected, the abdominal viscera rarely. Bone injuries were the most common form of wound, constituting about half of all wounds. The prognosis was worse than from small caliber bullets, and the mortality much higher. The main indication in treatment was to prevent infection. Explosive bombs produced much worse results. [M. O.]

CENTRALBLATT FUER INNERE MEDICIN.

March 29, 1902.

Postgonorrheal Vesical Bacteriuria produced by the Bacterium Lactis Aerogenes. BERTHOLD GOLDBERG.

The patient was a man of 32, who, 8 years before, had had an attack of gonorrhea, and had had a second attack in May, 1901. He treated this himself from the beginning, but came under Goldberg's care in October, with general urethritis. He had been put under treatment, had improved, and was apparently practically well. Suddenly, in January, there appeared a marked cloudiness of the urine, which was more notable at the end of urination, a white substance looking like prostate secretion appearing at the end. This substance seemed to be practically entirely composed of bacilli, which bacteriological investigation showed to be the bacterium lactis aerogenes. The use of urotropin and of intravesical injections of 2% silver solution caused the patient soon to reach the condition in which he had been before the appearance of the bacteriuria. This organism has been reported only once before as the cause of bacteriuria. [D. L. E.]

Decortication in Mastoiditis.—Lavrand reports a case of painful mastoiditis in a girl of 20, with long-standing otorrhea. Trepanation showed that the entire apophysis has been destroyed by the nonsuppurative process. Decortication, with opening of the mastoid cells, was all that seemed needed, for in 3 weeks the wound had healed. This case was remarkable on account of the absence of all localizing symptoms. Nor was any pus found. (*Journal des Sciences Médicales de Lille*, May 3, 1902). [M. O.]

Special Article.

THE PROPOSED LOCATION FOR THE MUNICIPAL
HOSPITAL OF PHILADELPHIA.By HENRY LEFFMANN, A. M., M. D.,
of Philadelphia.

Some newspaper discussion and considerable, though mostly local, excitement has been occasioned by the action of the Philadelphia City Councils, in deciding upon the purchase of a tract of land in the extreme southwestern section of the city for the location of the public hospital for contagious diseases. The objections urged, principally by the residents of the section and some newspapers, are:

(1) That the locality is essentially and seriously insanitary.

(2) That the hospital will be difficult of access.

(3) That the price is much too high.

The ground chosen is a nearly rectangular tract fronting for about 600 feet on Penrose Ferry Road, and extending back a considerable distance toward the shore of the Delaware river, not far from the Revolutionary relic, Fort Mifflin. The ground in that section of the city is largely below the level of mean high water in the river, and is protected by an extensive series of dikes. The drainage has been accomplished by utilizing natural creeks and artificial ditches and pumping the collected water over the dike level at convenient stages of the tide. The agricultural interests of the region are the most important industry and are principally the raising of truck for the Philadelphia market.

The sanitary condition of the region is unfavorably described by several physicians of extended experience and by many residents. Yet visits to the district and inspection of the residents do not indicate unusual ill-health. I have been acquainted with the district since boyhood, although never resident in it, and visits made of late years in consequence of the opening of the trolley lines, including one visit made a few days ago, have never shown any special appearance of the people, nor so far as I can find do the statistics of disease or death in this section exhibit noticeable differences from the rest of the city. In fact, the report of the City Board of Health for 1901 shows that the mortality of the ward in proportion to population is below that of many other sections of the city. The detailed statement of causes of death by wards shows that no special tendency to febrile diseases exists in this section. The deaths are largely from heart and lung troubles and from the diseases of very early infancy, none of which affections is connected intimately with the geographical conditions. No death from malarial fever is reported from the ward for 1901, and only five deaths from typhoid fever.

Up to within a few years ago, all sanitarians would have been willing to consider the question of the possibility of some attenuated or almost intangible means as the cause of malarial fever, to-day the conveyance of this class of diseases is traced with scientific exactness to a tangible cause. We are, therefore, not necessarily alarmed by the fact that the territory is below highwater mark. We remem-

ber that Holland is in the same condition, and its inhabitants have been known in history for anything else than a feeble malarial folk. The English wits of the time of William III were in the habit of saying that the monarch came from a country that draws thirty feet of water. The fact is that, by efficient diking, ditching and use of pumps, this land could be kept in a satisfactory state. If it were not so, the extensive scheme of irrigation contemplated in some parts of the United States would be a serious sanitary problem. In view of the existing knowledge, we cannot now assume that dangerous miasms arise from even stagnant water.

There is no doubt, however, that the district of the Cannon-Ball Farm (its local name, presumably having some connection with the proximity to Fort Mifflin) is largely a mosquito breeding-ground. Residents and visitors testify to this. The conveyance of malarial fever by the mosquito depends upon two important conditions, the species of the insect and the pre-existence of the disease. It is not now believed that the disease can originate in merely swampy land or stagnant water. The insect that conveys the infection must be itself infected by sucking the blood of a person affected. I leave out of consideration here the alleged possibility of infection by drinking water containing the bodies of infected insects, since no one in the hospital will drink the surface water unfiltered. The more serious question that arises is whether the abundance of insect life will not render liable a carrying of infection from the hospital to the surrounding population. I have no great fear of the conveying of diseases into the wards. I believe that, with the methods of construction, drainage, ventilation and heating now applicable, a series of detached hospitals could be erected, in which all forms of contagious disease could be satisfactorily treated. As a matter of fact, the quarantine station for the port of Philadelphia was located on Province Island not far from the tract in question, and the residence as well as the hospital for the service was in use for many years. It was abandoned in the early part of the 19th. century, not for sanitary reasons but for commercial convenience and the new station, maintained until a few years ago, was also in a swampy, mosquito-laden district, as I can testify from personal experience. Though I have known as many as forty persons to be on the Tinicum Island station at one time, I have seen no instance of malarial fever of definite type contracted in that station. As noted above, however, the communication of serious contagious diseases by the *exit* of insects from the hospital after having been in contact with patients or, more likely, articles of clothing or bedding is a real risk, and one that should be borne in mind carefully in locating the building. Absolute freedom from insects cannot be guaranteed of any locality in this neighborhood, but when the conditions are such as to produce a large number of individuals and great variety of species, the objection to the locality is weighty. It is too soon in the development of the warfare against insect conveyance of contagion to assume that the ditches, sluggish streams and marshes of the vicinity of the Cannon-Ball Farm can be disinfected or the

insect life effectually controlled. That this could be done if sufficient money and proper organization were available I have no doubt. It has been well done in Cuba, and to a less extent in other places.

The distance from the built-up portions of the city is a weighty objection to the locality proposed. The farm is five miles in a direct line from City Hall; the present hospital is about half as far. This comparison does not give the full difficulty, for the great bulk of the city extends northward and northeastward from the City Hall, and is, therefore, much nearer to the present hospital. The journey to the new site is over fairly good and level roads, with but little shade. The ambulance would be but little jolted, and probably with a good electric motor and rubber tires, the conveyance of a patient could be made as swiftly and comfortably as required. From nearly all parts of the city east of the Schuylkill, the journey would lead along a line crossed at grade by several steam-roads and over a drawbridge that is frequently open, and liable at any time to get out of order. The latter difficulty would become less after the construction of the proposed Passyunk bridge. Still it seems to be bad management to put such a hospital at the extreme part of the outlying district and thus compel the majority of the patients to suffer the long journey.

The fact is that, in such a city as Philadelphia, at least two hospitals should be established; one at the northern and one at the southern part of the city. Apart from any of the local sanitary questions, the Cannon-Ball Farm would be convenient for the section south of Callowhill street, and all west of the Schuylkill, while the lot formerly proposed near Frankford, would have the northern and eastern population.

Summing up, I may say that the conditions at the proposed southwestern site are such as to require great care and judgment both in construction and management to make the hospital safe to the patients and to prevent it being a focus of contagions. While these difficulties are not insuperable, they are deterring. The distance is a serious objection, but would almost disappear if the double system above suggested were adopted.

The price is not a sanitary or medical problem.

Apyretic Typhoid Fever. This rare type of typhoid fever is the subject of an article in *Le Bulletin Médical*, June 13, 1902, by Drs. G. Lemoine and Breynaert. While most of the symptoms of typhoid are present, the temperature remains normal, as is shown by the case-history reported, in a woman of 63. Her temperature remained between 100° and 100.5° F. for 4 weeks, during which time intestinal hemorrhage occurred twice. Then, after a week of practically normal temperature, a relapse occurred, perforation following 18 days later, with collapse. Death occurred 13 days afterward, from a second perforation, on the seventieth day of the disease. Rose spots were not observed. The details of the onset, decline, convalescence, symptoms, complications, forms, course, prognosis, diagnosis and pathogeny of the apyretic form of typhoid fever follow. This case was marked by the predominance of gastric symptoms, the recurrence of intestinal perforation and the long duration of the disease. [M. O.]

Original Articles.

A CASE OF ALBUMOSURIA OF THE PERNICIOUS ANEMIA TYPE.*

By HERMAN F. VICKERY, M. D.,

of Boston, Mass.

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Alder¹ believes that the presence of albumosuria indicates some abnormality of metabolism, but that no definite diagnostic conclusions can be drawn from its presence or absence; but the prevailing opinion is that the detection of albumosuria should lead to a careful search for bone tumors.²

An interesting confirmatory observation is that of Dr. G. Zueizer³, who reports that by administering pyridin to dogs he produced albumosuria with marked progressive anemia, and that the bones were found filled with lymphatic tissue.

On the other hand, Askanazy⁴ reported a case associated with lymphatic leukemia; and nervous symptoms, associated with albumosuria, are referred to by Senator⁵.

Ellinger⁶ described a case of multiple lymphoma of the ribs, vertebræ and sternum, associated with a clinical picture similar to that of pernicious anemia, only without megaloblasts. During life the tumors could not be diagnosed. The typical symptoms of myeloma are paroxysms of pain referred to the bones, great deformity of the skeleton of the trunk, cachexia and Bence-Jones' albumosuria. In the case which I desire to put on record no autopsy could be obtained. There was no distinct clinical evidence of bone disease.

On the 9th. of August, 1901, Mr. Edward F. applied to me because of weakness, dyspnea and a "pumping" sensation in his head. Finding albumose in his urine, I persuaded him to enter the Massachusetts General Hospital for observation. He was there a week under my care, and the following report is the result of a study of his case:

He was a single man, 47 years old; by occupation a bookkeeper; a native and resident of Boston. His mother had died at the age of 36, of erysipelas, but his father, one brother and two sisters were well. He had drunk liquor daily, and, as a young man, occasionally to excess. He had suffered from gonorrhea repeatedly, but had no knowledge of any constitutional infection. At the age of 7 he had had scarlet fever, and 12 years before entrance he had rheumatism for a week. Lately, also, he had had some stiffness between the knee and ankles. Last year it was not quite so easy for him to ride the bicycle as previously, and this year he gave it up altogether. For over a year friends had noticed that he was growing pale.

Last March he was taken with a dry cough, associated with some palpitation, cardiac pain, dyspnea and a tight feeling about the chest. He grew rapidly very weak, so that even breathing required exertion. By June he was very dizzy on walking, food began to distress him, and there was occasional vomiting, so that now and then he was obliged to stay in bed for a few days. Slight swelling of the feet and ankles was noticed in September, about a month after I first saw him.

(1) Centralbl. f. inn. Med. March 3, 1900.

(2) Fitz, Amer. Jour. Med. Sci., 1898, Vol. 116, p. 30; also Ham-burgher, Bull. Johns Hopkins Hospital, February, 1901.

(3) Berl. klin. Woch. Vol. 37, p. 894.

(4) Deutsch. Archiv. f. klin. Med. Vol. 68, p. 34.

(5) Berl. klin. Woch. Vol. 36, p. 161.

(6) Deutsch. Archiv. f. klin. Med. Vol. 62, p. 3 and 4.

*Read before the Association of American Physicians; April, 1902.

He passed a light-colored urine frequently—the amount in 24 hours being normal, however; that is, three pints. Last winter he weighed 165 pounds, which was his best weight. When I first saw him he weighed 135 pounds, but he still appeared rather plump. His face had a pale, lemon-yellow color. The pupils were equal and normal in their reactions, but with the ophthalmoscope Dr. F. E. Cheney found slight retinal hemorrhages and a low grade of optic neuritis. The skin was moist and satiny; the tongue was moist, with a slight coat. There were a few small glands in the axillæ and groins. The lungs were negative, except for moist rales at the bases; the heart's apex was in the nipple line; the pulmonic second sound was accentuated, and there was a systolic murmur in the pulmonic area.

The pulse was of small volume and low tension. The artery walls were palpable. The liver was slightly enlarged, otherwise abdominal examination was negative. The various reflexes were normal. While in bed there was no marked edema. Dr. J. L. Goodale found the larynx normal.

The urine was repeatedly examined, but it varied little from the condition reported by Prof. E. S. Wood, as follows: "Color, pale; specific gravity, 1016; reaction acid; uropheins increased; indoxyl much increased; chlorides diminished; earthy phosphates slightly diminished; alkaline phosphates normal; urea 1.1 per cent.; albumin about $\frac{1}{2}$ per cent., precipitated by nitric acid; by heat test an abundant precipitate formed which dissolved on boiling and reappeared on cooling—albumose. The sediment was considerable in amount, containing numerous granular casts and granular renal cells and an occasional highly refracting cast, like a waxy cast."

The first examination of the blood was: Hemoglobin, 25%; leukocytes, 6,000; red globules, 1,216,000. In a count of 500 white cells the polymorphonuclears were 65%; lymphocytes 33%; eosinophiles 1.5%; myelocytes 0.5%. While counting these, 17 normoblasts were seen, and 2 megaloblasts. The red cells stained faintly and irregularly. There was much variation in their shape and size, with a tendency to large varieties.

In a second examination, the hemoglobin was 15%, the white cells 6400, the red cells 1,120,000, the polymorphonuclear leukocytes were 55%, lymphocytes 43%, eosinophiles .5%, myelocytes 1.5%; 10 normoblasts were seen and no megaloblasts; the character of the red cells was as before.

The patient's temperature averaged 99°, his pulse 80 to 90, his respiration 20 to 25. He did not complain of his bony framework in any way, and nothing abnormal was detected upon examination. The X-rays revealed a slight dilatation of the heart and of the aorta, but no abnormalities in the bones.

My colleague, Dr. W. W. Gannett, who saw the patient in consultation, regarded it as a case of pernicious anemia. There was so great a tendency to vomiting and diarrhea, that few drugs could be administered. Arsenic seemed to be ill borne.

After leaving the hospital on September 12, the patient remained in about the same condition until October 20, 1901, when he suddenly died in syncope. No autopsy could be obtained. His illness had lasted about one year.

COCAINE AS A THERMOGENIC: ITS MODES OF ACTION.

By EDWARD T. REICHERT, M. D.,
of Philadelphia.

Professor of Physiology, University of Pennsylvania.

The temperature-raising action of cocaine is one of its most characteristic properties, and, while no clinical significance has been attached to it, it is nevertheless from pharmacodynamic and physiological aspects of more than passing interest. No other agent of the pharmacopeia is at all comparable with it in intensity in this respect, and but one other substance, betatetrahydronaphthylamine can be said to have a place upon the same plane. In dogs the subcutaneous injection of less than one-tenth of the mean minimal lethal dose, or 0.0025 gm.

per kilo of body-weight, is sufficient to increase body temperature from 0.2° to 0.5°; 0.01 gm. per kilo causes a rise ranging from 1° to 2°; and 0.02 gm. per kilo effects an increase of 2° to 4°, or more. The temperature usually remains hypernormal for two hours after the smallest dose, for three or four hours after 0.01 gm. per kilo, and for six or seven hours, or more, after the largest dose. Various explanations have been advanced to account for this pyrexia, all of which, however, with a single exception, have been theoretical. In a research upon this subject (*University Medical Magazine*, May, 1889) I found that the changes in temperature are due to actions upon the heat-producing processes—heat dissipation not being influenced excepting in reciprocal relationship to the alterations in heat production, and excepting after small doses, and then only transiently and unimportantly; but it was not determined in precisely what way or ways the increase in thermogenesis is brought about. Motor disturbances, which are among the earliest and most marked effects of cocaine, are unquestionably an important factor in causing the decided increase of heat production, and this fact has naturally led to the assumption that the thermal changes are caused in this way. Danini, for instance, attributed the increase of temperature to convulsions, but other investigators have found that the rise sets in long before the occurrence of convulsive seizures, and also in animals in which the dose was insufficient to cause convulsions. There is no doubt, however, that there is generally a close relationship between the rapidity and extent of the increase of temperature and the degree of motor excitement. Mosso (*Archiv f. exper. Path. u. Phar.*, Bd. XXIII, S. 153) records that in animals rendered motionless by curare, and also after section of the spinal cord at its junction with the bulb, a rise of temperature still occurs after the injection of cocaine; but, as I have pointed out elsewhere (*loc. cit.*), his results and conclusions are open to question. My own experiments upon dogs *lightly* curarized show that cocaine exerts little or no action under such conditions, and that in animals in which section was made of the cord at its junction with the bulb it is rendered absolutely inert. In both cases there is motor quiet, so that in these experiments motor excitement as a factor in the increase of heat production and temperature is eliminated. While these results may reasonably be taken to indicate that motor excitement is the cause of the pyrexia, they nevertheless do not prove that cocaine does not increase heat production and temperature in other ways.

The heat formed in the animal organism has its origin in two fundamental sources: First, as a product *incidental* to the chemical changes involved in the processes concerned in repair and growth, secretion, digestion, muscular contraction, etc.; second, as a product *specific* to a specific thermogenic function of the skeletal muscles—a function entirely distinct from that of contraction or molar motion. The processes concerned in the first and those in the second are co-operative and in reciprocal relationship, so that the quantities of heat formed incidentally and specifically, respectively, are in in-

verse ratio, specific heat production increasing or decreasing in inverse ratio to the quantity formed incidentally. The object of this co-operation is to maintain the mean standard of heat production. Thus, during the periods of digestion, when more heat is formed in the digestive apparatus than at other times, compensation for this occurs by less specific heat production in the skeletal muscles. This specific heat-producing function is comparable to the glycogenic transforming function of the liver, by virtue of which glycogen is changed into dextrose and supplied to the blood in such quantities as are necessary to maintain the mean normal percentage of this substance in this fluid. It remains to be determined to what extent one or both of these sources of heat production are involved. It is clear that cocaine may increase heat production, as an *incident* to activity in general; or it may act upon the specific heat-producing function of the skeletal muscles, increasing heat production as a *specific* or purposive act. Inasmuch as the increase of heat production is so closely associated with motor excitement, the first step in the inquiry is clearly to adopt measures to eliminate this factor without, if possible, involving the others; therefore, to obtain enforced motor quiet. The motor disturbances caused by cocaine in the dog are of cerebral origin and, therefore, are not present after section of the motor tract anywhere along its course between the cortex and the motor cells of the cord; hence, section of the spinal cord at its junction with the bulb and section of the crura cerebri eliminate entirely the factor of muscular excitement. Morphine and curare also cause motor quiet. In all of these instances, however, not only are motor disturbances set aside, but new conditions are introduced which may not only affect other factors, but of themselves so complicate the results as to render them absolutely misleading unless most carefully interpreted. For the sake of clearness and convenience the several series of experiments which were performed to determine the modes of action of cocaine upon thermogenesis will be considered seriatim, as follows: A. The actions of cocaine upon curarized dogs; B. The actions of cocaine upon morphinized dogs; C. The actions of cocaine upon dogs after section of the spinal cord at its junction with the bulb; D. The actions of cocaine upon dogs after section of the crura cerebri, and after injury of the caudate nuclei, etc.

A. *The Actions of Cocaine Upon Curarized Dogs.* The effects of curare upon the heat mechanism vary with the dose, and, unless it is given in the smallest quantities absolutely required to produce muscular quietude, both heat production and heat dissipation are so decidedly affected as to render studies of pyretic drugs almost, if not entirely, valueless. Doses merely sufficient to abolish volitional movements generally decrease temperature to a marked degree, and chiefly and essentially by increasing heat dissipation, heat production being little, if at all, affected except in some cases during the first hour after the injection. Larger doses not only decidedly increase heat dissipation, but markedly lessen heat produc-

tion, in both ways lowering body temperature. Danini found that a rise of temperature did not occur after giving cocaine to curarized dogs, but the results of Mosso's experiments, as well as those of my own, are evidence to the contrary. Mosso recorded marked effects, in one instance the rise amounting to 3.1° ; and in my experiments, while the effects were far less than in normal animals, they were distinct. Danini doubtless injected more curare than was necessary, and it was likely that in Mosso's experiments, as was the case in my own, minimal quantities of curare were used. In my experiments the animals were so lightly curarized that they were on the border line of motor quiet and motor activity, slight recovery from the curare being indicated by feeble twitchings, and these being set aside in turn by minute quantities of curare. A fertile source of fallacy in such experiments is in the uncertainty of the effects of the curare, the same preparation causing in some animals a rise of temperature and in others a profound fall, etc., even when given in the same relative dose. This uncertainty makes it impossible to predict with any degree of certainty what the effects upon temperature will be, although the typical effect is a depression which may be preceded by a transient but usually unimportant increase. It is therefore doubtful if in either Mosso's experiments or my own the increase of temperature after cocaine was due to the cocaine. In six calorimetrical experiments upon dogs lightly curarized (no cocaine being given), the results of which may be regarded as representing typical effects, in each the temperature was decidedly lower; heat dissipation was at first increased and then decreased; and heat production was decreased in two during the first hour after the curare, but subsequently thereto, and in the other four experiments, was but little affected. The fall of temperature is due essentially, as will be shown, to the increase of heat dissipation. Composite curves constructed of the results of these experiments exhibit clearly the typical effects upon temperature, heat production and heat dissipation. (Chart I.) It will be observed that body tempera-

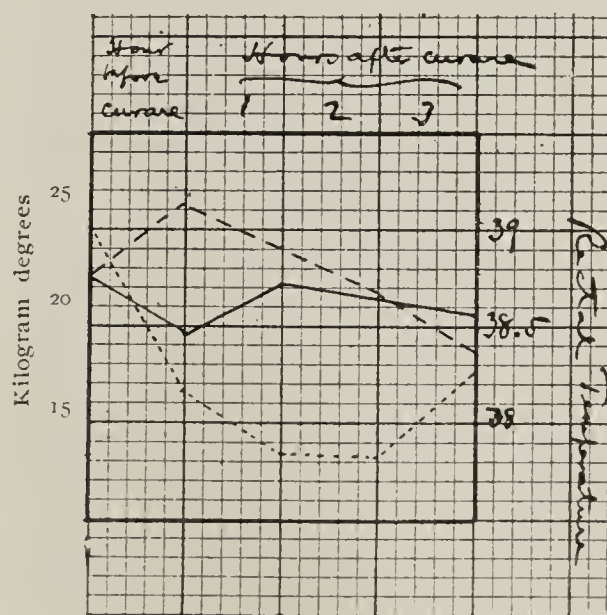


Chart I. The curve of heat production is shown by a solid line (—), of heat dissipation by a broken line (---), and of temperature by a dotted line (....).

ture fell 0.99° during the first hour after curare, 0.27° during the second hour, 0.02° during the third hour, and that it rose 0.41° during the fourth hour. The total maximum fall was 1.28° recorded at the end of the third hour. Heat production fell 11 per cent. below the normal during the first hour after curare, almost recovered the normal during the second hour, and remained fluctuating within 10 per cent. of the normal during the succeeding hours. Heat dissipation was increased 17.9 per cent. during the first hour, and was 8.8 per cent. above the normal during the second hour; but during the third hour it fell 0.17 per cent. below the normal, and during the fourth hour 1.6 per cent. below the normal. It will be seen that heat production continued subnormal throughout the four hours and that heat dissipation was hypernormal during the first two hours, and subnormal during the last two. The fall of heat production, which might be attributed to the curare, was in all likelihood owing to the method of experiment—the confinement of the animals within the calorimeter, and other attendant conditions cause a fall of heat production in normal dogs not unlike that observed in curarized animals. In normal dogs heat dissipation is under the same conditions lowered, closely following the changes in heat production, so that the temperature is but little affected; but in curarized animals heat dissipation is increased, especially during the first and second hours, when the most marked fall of temperature occurs. These facts indicate clearly that the temperature changes following doses of curare merely sufficient to cause motor quiet are due essentially to effects upon heat dissipation.

Cocaine, in the dose of 0.01 gm. per kilo of body weight subcutaneously injected, causes in dogs a marked rise of temperature, which is due to an increase of heat production. In three experiments (*loc. cit.*) the mean maximum increase of temperature was 1.81° , and the mean maximum increase of heat production 146.9 per cent. The records of the mean effects upon heat production, heat dissipation and temperature are exhibited in Chart II and show

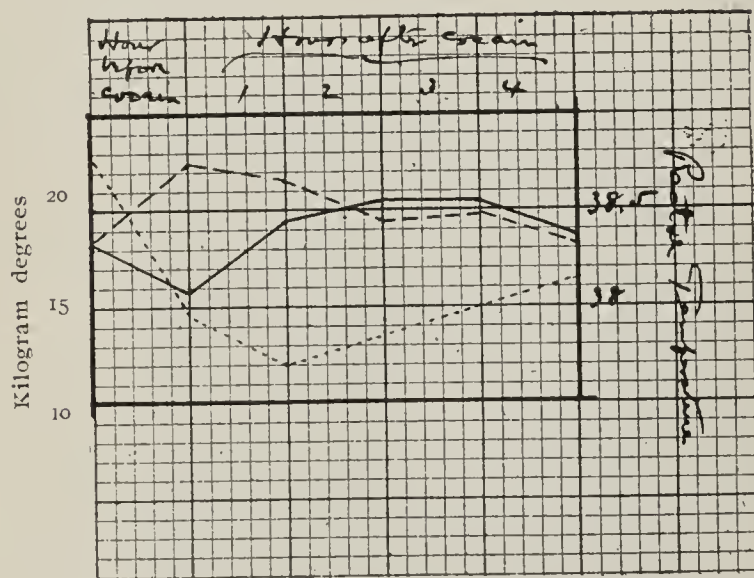


Chart II. The curve of heat production is shown by a solid line (—), of heat dissipation by a broken line (---), and of temperature by a dotted line (....).

that the most pronounced effects occur during the first hour. Heat production increases with great

rapidity during the first hour, reaching a point 146.9 per cent. above the normal: it falls to within 28.5 per cent. of the normal during the second hour, becomes subnormal during the third hour, and continues subnormal during the following two hours or more. Heat dissipation is not specifically acted upon, and it is apparent that it is altered only indirectly and in reciprocal relationship to the changes in heat production. The curve of temperature follows closely the mutations in heat production and is, therefore, at any given time an index to the effect upon heat production at that time.

In six experiments with cocaine upon dogs lightly curarized, the dose of cocaine in each being 0.01 gm. per kilo subcutaneously injected, the results show (Chart III) that the typical effects of cocaine no

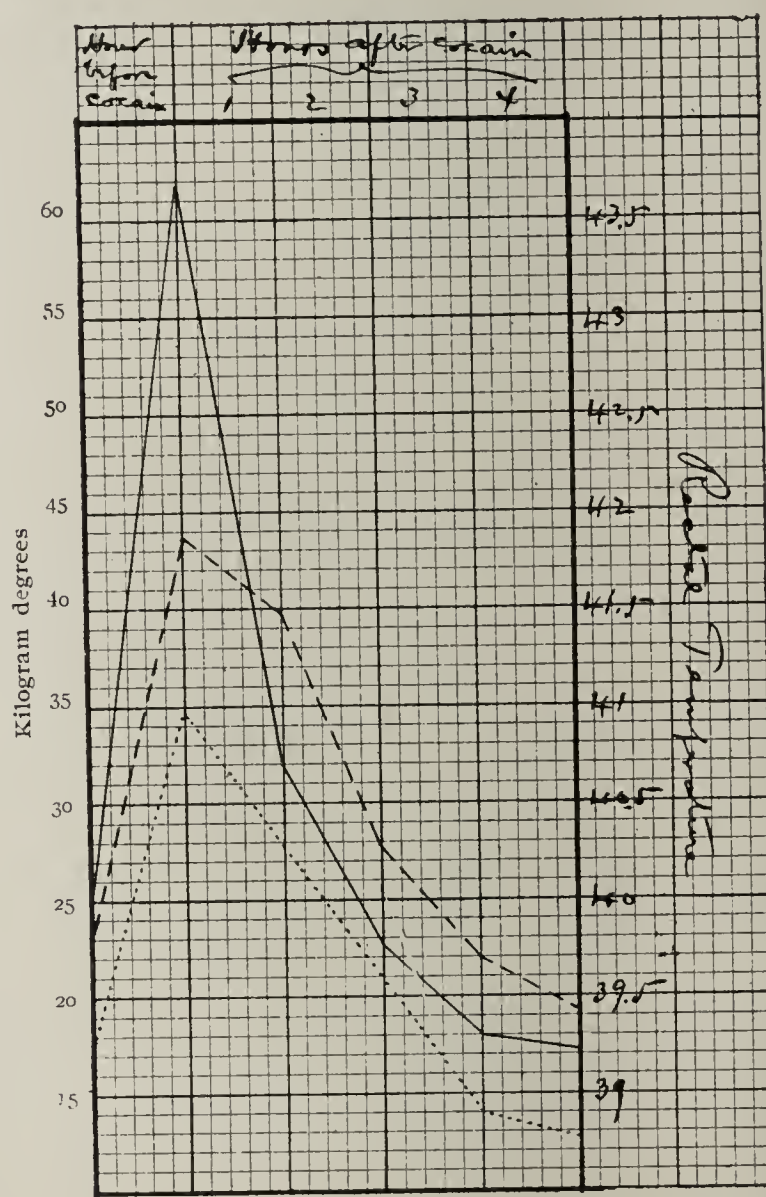


Chart III. The curve of heat production is shown by a solid line (—), of heat dissipation by a broken line (---), and of temperature by a dotted line (....).

longer appear, and that the ordinary course of events observed in curarized dogs without cocaine occurs without alteration, excepting essentially a very slight increase in heat production and an earlier recovery of temperature. The feebleness of cocaine in curarized animals is seemingly owing to its loss of power to increase heat production because of the absence of motor excitement. It may be, however, that the curare not only antagonizes the cocaine by preventing motor disturbances, but also by depressing at the same time some part or parts of the

thermogenic mechanism which is not associated with motor functions. Proof of this is forthcoming.

B. *The Actions of Cocaine Upon Morphinated Dogs.* The subcutaneous injection of 0.01 gm. of morphine per kilo of body weight is followed in a few minutes by profound muscular weakness which lasts for hours. This is accompanied by a marked fall of temperature, ranging from 1° to 4° , the maximum being noted usually during the fifth hour. Sometimes the decline is preceded or interrupted by a transient rise, which may amount to 0.2° to 0.4° . When the animals are subjected to calorimetrical study, the effects do not seem to be so marked or so lasting. In twelve such experiments the temperature fell on an average 0.39° during the first hour after morphine, 1.19° during the second hour, and 0.18° during the third hour, making a mean total fall of 1.93° . Heat production declined 26 per cent, 62 per cent. and 40 per cent. below the normal during corresponding periods. The curves of temperature and heat production were so closely related

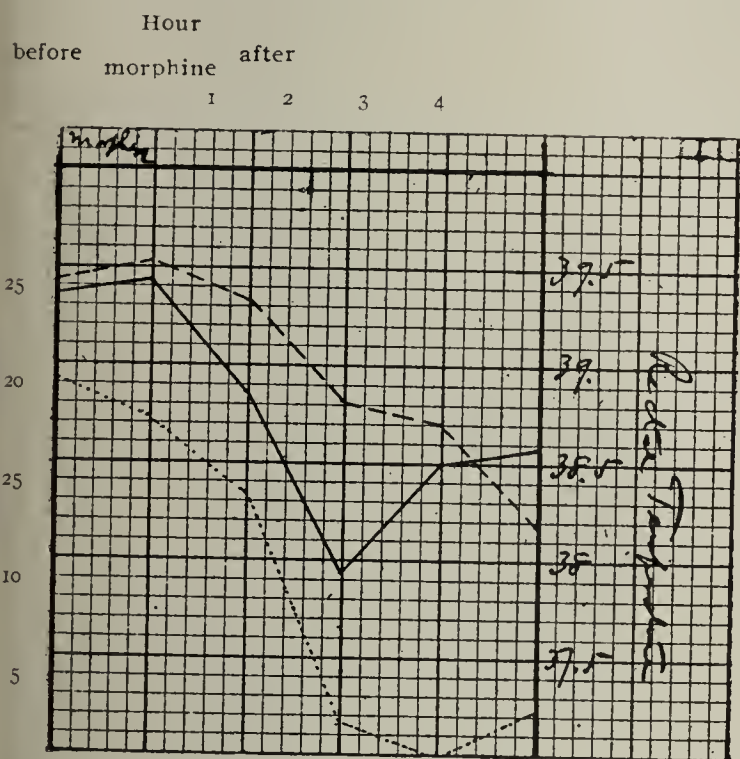


Chart IV. The curve of heat production is shown by a solid line (—), of heat dissipation by a broken line (---), and of temperature by a dotted line (....).

(Chart IV) as to justify the conclusion that the changes in the former are due to effects upon the latter.

When cocaine is administered to dogs thus morphinated, the effects vary in relation to the dose and idiosyncrasies of the different animals, and to the interval of time between the two injections. In experiments in which standard doses of 0.01 gm. of each morphine and cocaine per kilo of body weight were used, the effects caused by the cocaine varied within wide limits, which variations were due almost solely to the time of the injection of the cocaine. When given with the morphine, or within half hour after, there is usually but little evidence of the presence of cocaine unless motor disturbances occur—the cocaine merely temporarily hinders the rapid fall of temperature, or causes a slight but transient rise; subsequently, the temperature changes pursue essentially the same course as in normal animals, unless motor disturbances occur.

After larger doses of cocaine the temperature effects are often very marked, but largely in relation to the degree of motor excitement. In some animals the motor quiet and weakness continue for hours, notwithstanding temperature changes due to the cocaine; in others, shortly after the rise of temperature sets in, motor disturbances occur, and with their increase in intensity the temperature increases in close relationship. When cocaine is injected at the end of the first hour, the fall of temperature is soon checked and a rise sets in, which, in most instances, rapidly reaches the normal and then continues to a level far beyond the normal.

In nine experiments with cocaine upon morphinated dogs (*Therapeutic Gazette*, July, 1902) the animals were recorded as being quiet during 15 of the total 27 hours during which they were under cocaine. During 7 of the 15 hours of quiet, heat production was 19.8 per cent. less than the average of the hours immediately preceding; and during the remaining 8 hours it was 21.3 per cent. above the same standard. When the dogs were *restless* the mean heat production was increased 93.3 per cent., and when they were *very restless* the mean increase was 304.9 per cent. The temperature alterations were closely related to those of heat production. During the hours when heat production was subnormal the antagonistic effects of cocaine were obvious in the fact that during corresponding hours of experiments upon morphinated dogs, one lot with cocaine and the other without cocaine, during not a single hour were heat production and temperature depressed to the same degree in cocaineized dogs as in those without cocaine, notwithstanding that in both there existed motor quiet and profound muscular weakness. These results show without question that cocaine in the absence of motor excitement not only checks the fall of temperature, but starts a reaction which in most experiments sends the temperature beyond the normal; and they also offer additional evidence that cocaine increases body temperature in two ways—in part and chiefly by causing motor excitement, and in part by affecting processes which are entirely independent of motor excitement.

C. *The Actions of Cocaine Upon Dogs After Section of the Spinal Cord at its Junction with the Bulb.* From the results of a single experiment in which the spinal cord was cut at its junction with the bulb, Mosso states (*loc. cit.*) that cocaine is still effective as a temperature-raising agent. His experiment is, however, so defective that the results are fallacious and practically valueless. Not infrequently in normal animals after such section the temperature increases for a time. This occurred in Mosso's experiment, and during the rise, which amounted to only 0.19° and was reached in 11 minutes, the cocaine was injected. It is futile to assume that the cocaine had anything to do with this increase. In four experiments which I performed and in which precautions were taken to avoid fallacious results due to a rise of temperature caused by the section, in not one did the cocaine have any effect upon the temperature (*loc. cit.*). The injections were not made until a fall of temperature set in, and there was absolutely no evidence that the cocaine interfered in the least

with the typical steady decline. These results are in entire accord with those of experiments in which sections were made of the brain and spinal cord so as to sever thermogenic and the corticospinal motor nerve paths, the results of some of which will be found in the following section. Section of the spinal cord not only prevents the increase of production by motor excitement, but also prevents the increase by processes not associated therewith.

D. *The Actions of Cocaine Upon Dogs After Section of the Crura Cerebri and After Injury of the Caudate Nuclei, etc.* In several communications of recent date (*University Medical Magazine*, March, 1893; *ibid*, February, 1894; *Journal of the American Medical Association*, January 18, 1902) sufficient evidence was offered to lead to the following conclusions as to the thermogenic mechanism of the higher animals: (1) That the heat produced in the body arises as a product incidental to activities in general and as a product specific to specific heat-producing structures, the quantity formed in the latter way being in reciprocal relationship to that arising incidentally; (2) that the heat produced as a specific product is formed in the skeletal muscles and through the activities of specific thermogenic centers and nerves; (3) that a general or reflex thermogenic center exists in the spinal cord; (4) that thermo-accelerator centers exist in the caudate nuclei and pontobulbar region; (5) that thermo-inhibitory centers exist in the cerebral cortex. While the functional relations of these centers are unknown, it is probable from our present knowledge, that the center in the spinal cord is capable, independently of the centers of the brain, of maintaining the normal standard of heat production, at least for some hours, and that its activities are exerted upon the skeletal muscles through specific thermogenic nerves—nerves entirely distinct from those which convey impulses of volitional motion; that the caudate and pontobulbar centers act as thermo-accelerator centers to the spinal center or through the spinal cord; that the cortical centers act as thermo-inhibitory centers, also upon the spinal centers, or through the spinal cord; and, finally, that while both caudate and pontobulbar centers are thermo-accelerator centers, they are in certain functional respects radically different. The methods employed in studying the functional relations and individual peculiarities of these several centers are still unsatisfactory. As a consequence, our knowledge of the actions of drugs and other agents upon them is almost nil; while section, puncture, ablation, etc., are attended by the introduction of new and complex conditions which give rise under apparently the same conditions to more or less variable results. It follows, therefore, that in making deductions from such studies the results, as a whole, have greater value than those of exceptional cases. Does cocaine act upon any of these centers?

In a preceding section it was shown that after section of the spinal cord at its junction with the bulb, cocaine has absolutely lost its power of increasing body temperature. After such section the animals are motionless; hence, the factor of motor excitement in the increase of body temperature is

eliminated. The results also show that cocaine does not act upon the thermogenic center in the cord, nor upon the specific heat-producing processes of the skeletal muscles, and at the same time indicate that its actions upon the heat centers, if any, must be upon one or more of the brain centers.

In another series of experiments sections were made of the crura cerebri, thus cutting off the caudate and cortical centers, and leaving the pontobulbar center intact with the spinal cord. The results of these experiments are positive in showing that cocaine is as ineffective after this section as when the section is below the bulb, thus eliminating any action upon the pontobulbar center. In

TABLE I.

Showing the effects of cocaine upon the temperature of dogs after section of the crura cerebri.

Number of Experiments	Before injection of cocaine		At time of injection	After injection of cocaine			
	30 min.	15 min.		15 min.	30 min.	45 min.	60 min.
Experiment No. 1	40.18	40.15	40.15	40.15	40.20	40.15	40.15
" " 2	38.33	38.18	38.10	38.15	38.20	38.20	38.20
" " 3	39.22	39.32	39.12	39.12	38.50	38.49	38.25
" " 4	38.20	37.67	37.33	37.25	37.10	36.93	36.80
" " 5	39.30	39.28	39.25	39.08	38.80	38.70	38.66
" " 6	38.52	38.41	38.32	38.32	38.20	38.15	38.10
" " 7	39.60	39.60	39.55	39.25	39.03	38.98	38.78
(Mean)	(39.05)	(38.94)	(38.82)	(38.76)	(38.56)	(38.51)	(38.42)

seven experiments (*Table I*) from 0.01 to 0.02 gm. of cocaine per kilo was subcutaneously injected at a time when the temperature was steady or falling, and the dogs were studied for from one and a half

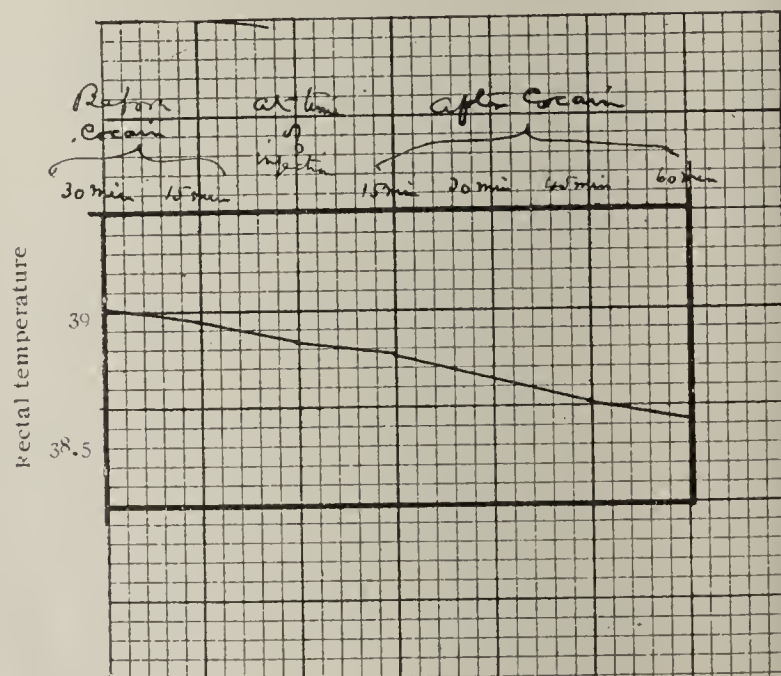


Chart V. Composite curve showing the temperature changes after section of the crura cerebri, and the administration of cocaine.

to five hours after the cocaine; but in not a single instance did the injection seem to modify in the least the thermal condition. Taking the results as a whole, and constructing a composite curve (*Chart V*), it will be seen that cocaine was without effect upon the temperature changes. These results are in accord with those in which section was made below the bulb and prove the ineffectiveness of cocaine after section of the motor and thermogenic nerve paths, and that the spinal and pontobulbar centers and the muscles are not acted upon by cocaine. The problem is therefore narrowed to probable actions upon the cortical or caudate centers. If upon the former the action must be that of a depressant; but that such is improbable in the light of the widespread and powerful centric stimulant action of cocaine is manifest. Moreover, the possibility of such an action seems fully eliminated by the results of two experiments in which I destroyed the cruciate thermo-inhibitory centers, and also by experiments in which the caudate nuclei were partially or completely destroyed. Destruction of the cruciate centers or injury of the caudate nuclei (except the anterior and posterior thirds) is followed by a rise of temperature which interferes more or less with a satisfactory study of the effects of cocaine, and in the latter the rise is so rapid that cocaine seems to be absolutely without effect.

When section is made of the caudate nuclei in the posterior third, the temperature effects in normal dogs are not, as a whole, unlike those caused by the section of the cerebral peduncles, save a tendency to a somewhat more marked rise of temperature, and, therefore, not of such a character as to mask any thermogenic actions of cocaine. In these sections a small portion of the caudate center is apparently left intact with the parts below. If, therefore, cocaine acts upon this center, effects should be expected upon temperature. In four such experiments the dogs were given cocaine as soon as the temperature was steady or falling. This delay in the time of the injection eliminated any rise due to the irritation of the section. In every one the temperature was increased after the injection (*Table II*), and the increase was for at least an hour

TABLE II.

showing the effects of cocaine upon the temperature of dogs after section of the caudate nuclei in the posterior third.

Number of Experiments	Before injection of cocaine		At time of injection	After injection of cocaine			
	30 min.	15 min.		15 min.	30 min.	45 min.	60 min.
Experiment No. 8	38.88	38.91	38.50	38.63	38.82	38.90	39.00
" " 9	38.18	38.18	38.02	38.12	38.10	37.99	37.98
" " 10	39.19	39.15	38.99	39.01	39.08	39.18	39.10
" " 11	39.28	39.10	39.12	39.40	39.62	39.85	39.91
(Mean)	(38.88)	(38.84)	(38.66)	(38.80)	(38.90)	(38.98)	(39.00)

in every experiment unaccompanied by motor disturbances, showing that it was due to factors entirely independent of motor excitement. A composite curve (*Chart VI*) constructed from the records

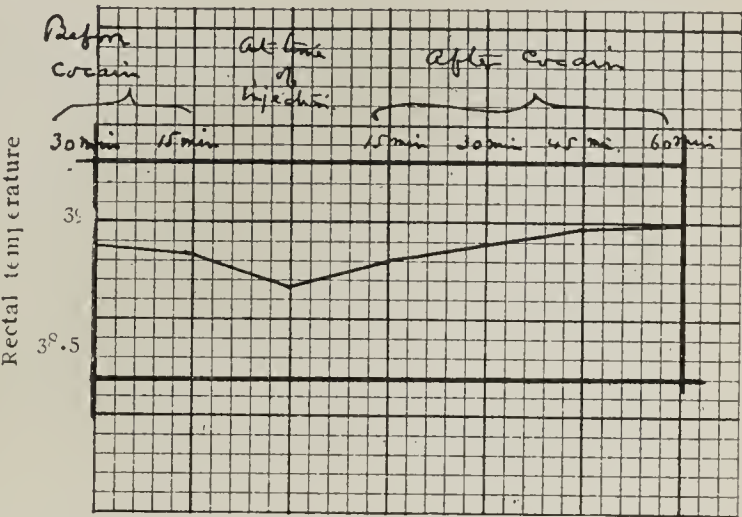


Chart VI. Composite curve showing the temperature changes after section of the caudate nuclei in the posterior third, and the administration of cocaine.

of these experiments shows that the results are entirely unlike those following the crural sections, and that the cocaine is effective, although greatly weakened, when even a very small portion of the caudate thermogenic center is left intact with the parts below.

Further proof that cocaine acts as a direct stimulant to the caudate center has been found in experiments upon morphinized dogs after section of the caudate nuclei in the anterior third. As before stated, the actions of cocaine upon temperature cannot be satisfactorily studied in animals in which sections of the caudate nuclei have been made in the middle third, owing to the rapid rise of temperature, which completely masks any stimulant action of the cocaine, because perhaps the stimulation caused by the section is of maximal intensity. When the sections are confined to the anterior third, the stimulating effects of the section are less intense and can be controlled or even set aside by morphine, and the depressant actions of morphine can in turn be counteracted and superseded by those of cocaine. Morphine, as I have found in other studies, is a depressant to the caudate center, and its antagonism to the stimulation caused by the section is owing chiefly to this action. In *Chart VII* the results of one of these experiments are shown—the effects of the section, of the morphine and of the cocaine are strikingly presented. It will be seen that immediately after the section the temperature rose rapidly, as much as 0.4° in five minutes. Within five minutes after the dose of morphine the rise was not only checked, but a fall set in which continued to the time of the injection of the cocaine, amounting to 1.1° in eighty minutes. Within five minutes after the cocaine the temperature rose 0.05° and increased 0.72° in fifty-five minutes. A second dose of morphine again checked the rise and caused a fall of 0.26° in 120 minutes, which in turn was set aside by a second dose of cocaine, which increased the temperature 0.69° in 35 minutes. A third dose of morphine checked the cocaine rise and caused a fall.

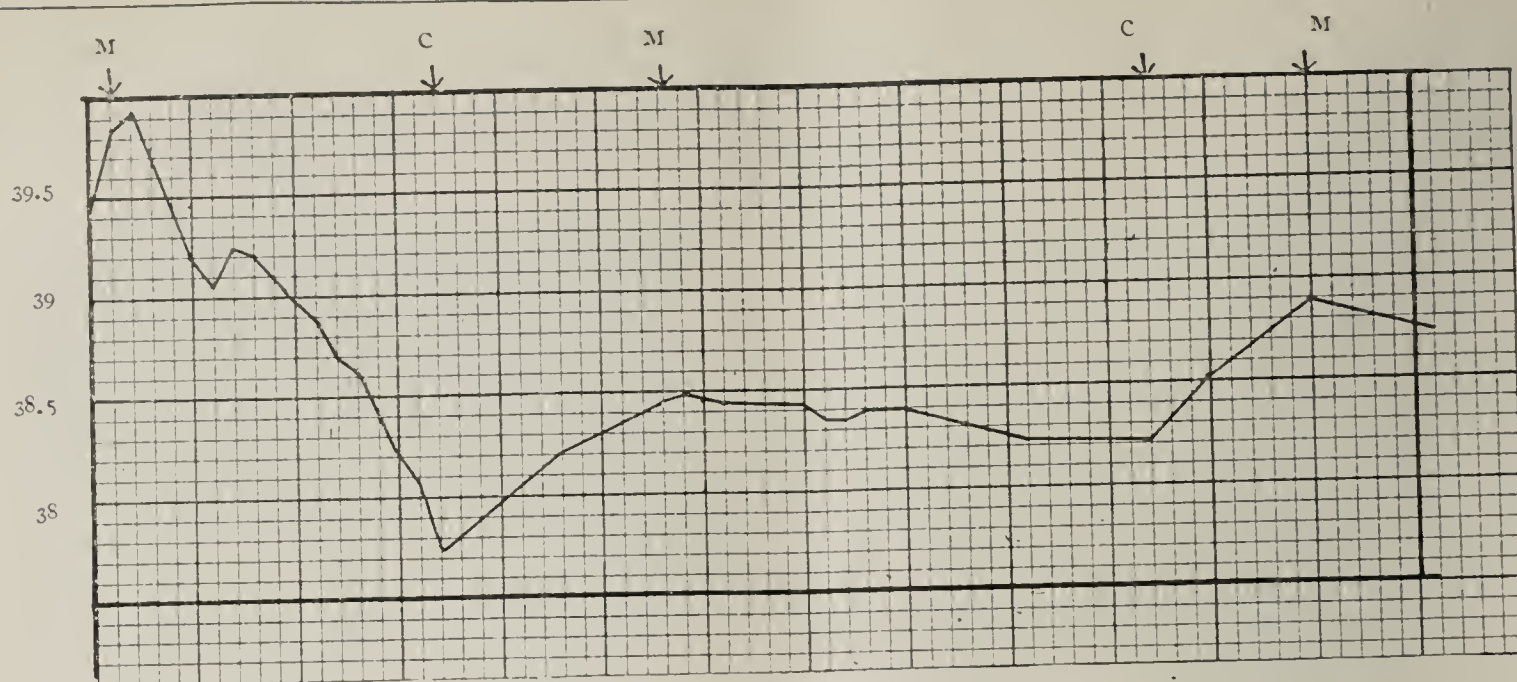


Chart VII. Showing the effects upon rectal temperature of injections of morphine and cocaine after section of the caudate nuclei 3 mm. from their anterior border. The vertical lines represent 5 minute intervals. M = injection of morphine; C = injection of cocaine.

During the entire experiment the dog was quiet. The results of these studies of the brain centers are convincing that cocaine not only increases heat production and temperature by causing motor disturbances through cortical excitation, but also by stimulating the thermo-accelerator center in the caudate nuclei.

The foregoing research has demonstrated the following facts:

1. That the rise of temperature caused by cocaine is due to an increase of heat production and that the latter depends upon two actions—one, upon the cortex, causing motor excitement, and the other, upon the caudate thermogenic center, by which heat is produced independently of motor activity.
2. That cocaine possesses very little power as a thermogenic in animals lightly curarized, because of both the motor quietude and the depression of some other portion of the thermogenic apparatus.
3. That cocaine is absolutely without thermogenic power in animals in which the pathways of thermogenic and corticospinal motor fibers have been cut, as after sections of the spinal cord at its junction with the bulb and of crura cerebri.
4. That cocaine is effective as a thermogenic when only a small portion of the caudate center is left intact with the parts below.
5. That cocaine and morphine are direct antagonists in their actions upon the caudate and cortical centers which are directly or indirectly involved in the changes of temperature and heat production.

General Subcutaneous Emphysema Following Empyema. Toussaint reports an interesting case of generalized subcutaneous emphysema after draining a left-sided empyema. in a young soldier. Purulent pleurisy followed influenzal pneumonia. An erysipelas-like, subcutaneous emphysema appeared on the face 2 hours after the empyema operation, and then extended over the entire body. Death followed in a few days. The autopsy revealed hemorrhagic pericarditis besides. The details follow. (*Gazette Médicale de Paris*, June 14, 1902.) [M. O.]

THE OPEN AIR TREATMENT OF TUBERCULOSIS IN THE STATE FOREST RESERVATIONS OF PENNSYLVANIA.

By J. T. ROTHROCK, M. D.,
of Harrisburg, Pa.

Commissioner of Forestry to the State of Pennsylvania.

[Note by the Editor.—The following is a circular letter which is sent by Dr. Rothrock to persons suffering with tuberculosis, who inquire about the opportunities to regain health in the mountains of Pennsylvania.]

In reply to your letter I would say that it has become impossible to answer all the inquiries which come to this office concerning outdoor life on the State Forest Reservations as a cure for consumption. It is no part of the official duty of this Department to continue the investigation, which was commenced last year, simply to convince the people of this State that they need not necessarily die from pulmonary tuberculosis, because they could not go to one of the distant States which have an established reputation for the cure of this disease. It seems to be pretty well understood that it met with a large measure of success. This office has now done its work in this direction, and it remains for the citizens of the State themselves to determine whether or not the splendid opportunities which the State Forest Reservations furnish shall be utilized in the acquisition of health and the prolongation of life.

The free hospital for consumptives at White Haven, Luzerne County, Pa., which is doing such splendid work, is conducted essentially upon the same lines as those followed by the writer in Monroe County, namely, life in the open air, practically day and night, judicious exercise and a generous, nourishing but digestible diet. It is fair to say that the principles which they follow there have practically won the acceptance of all competent observers.

Returning to the State Reservations, I would say that, whilst our observations have been made in the Pocono region of Pike and Monroe Counties, we have no reason to doubt that similar results would

be gained on the Hopkins Reservation in Clinton and Centre Counties, and also on the higher elevations of the South Mountain Reservation.

Any reputable citizen of the State of Pennsylvania, in search of health, is at liberty to establish himself, with that purpose in view, upon either of these reservations so long as he violates no law. He must neither hunt nor fish out of season; he must destroy no timber, nor can he start fires which may escape from his control and become destructive upon the public reservations, though, of course, he is allowed to kindle such fires as are necessary for his protection and comfort, but it must be done in such a way as to preclude the possibility of starting a disastrous forest fire.

I would say in general that your own family physician is usually the best man to decide whether or not you should adopt the outdoor life of which we now write. If, however, he recommends it, then let me say that for the summer months all that you really need is a protection against the storms and a dry place to sleep. You cannot get too much fresh air into your sleeping quarters, whether this be a tent, a cabin or a house. The only precaution which is necessary to take is to see that you are warmly enough clad to prevent, or at least diminish, the chances of an attack of pneumonia or pleurisy. Fresh air, then, is the first essential, and I doubt very much indeed whether that of any State in the Union is superior to that of the mountain air of Pennsylvania in the cure of pulmonary tuberculosis.

The second point to observe is that, unless you are gaining strength by your residence in the mountains, it is not likely that you are being cured of tuberculosis. Please bear in mind also that there are but two things in this world which will create strength: The one is food and the other is exercise. Neither the one nor the other alone will accomplish this result. In order to enjoy the food and digest it, it is necessary that you should take as much exercise as you can without undue fatigue. There is no exercise which is better than walking. This should be done leisurely (never hurriedly) and continued until a sense of fatigue warns you to stop. In a few months patients who at first walk but a mile a day come to walk a dozen miles or more without little fatigue and with positive advantage.

Furthermore, it is well to bear in mind that, if your digestion is poor, you should not overburden it with large quantities of food. It is very doubtful whether food taken in excess of that which is comfortably digested is ever a source of real gain to the patient. My own belief is that he had better never force an appetite. Whatever else may happen, it is very certain that appetite will come before starvation.

The diet should be soft-boiled eggs, milk, fresh meat, rice, potatoes, shredded wheat, dried apples and prunes and other such digestible food. After many years' experience I have learned to doubt whether fruits, such as tomatoes, peaches and pears, when put up in tin cans, are desirable for invalids, and the canned beans which are usually furnished by our grocers are often positively dangerous. We

have so many substitutes for these articles that they need not be missed from the diet list. Of course, these fruits, when fresh, are very desirable, especially for those who have a fairly good digestion.

I do not recommend any particular hotel or stopping-place in or near the forest reservations, for the reason that, as a rule, the proprietors of such establishments do not care to receive consumptives at their houses.

To these in search of health would simply say, if you are a citizen of this State, that you own as much of these forest reservations as any other one citizen, and that no one connected with this department will dispute your right to be there in search of health so long as you violate no law.

I would also add that this circular letter is not sent out promiscuously; it is solely sent to you because you have asked for information, nor is it intended that it shall in any way interfere with your relations to your regular physician.

THE EARLY DIAGNOSIS AND TREATMENT OF ACUTE MASTOID INFLAMMATION.*

By T. H. HALSTED, M. D.,

of Syracuse, N. Y.

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Joseph's Hospital and the Women's and Children's Hospital.

The middle ear is a long, tortuous, cartilaginous and bony tube or canal, lined throughout with mucous membrane, beginning at the nasopharynx, extending through the narrow Eustachian tube to the dilated tympanic cavity, and continuing through a narrow bony passage to the antrum, where branch off a number of cells, honeycombing the mastoid process. The middle ear, an air-containing sinus, is perfectly analogous to the accessory sinuses of the nose, and it simplifies very much the understanding of the pathology of acute otitis media if we regard the middle ear as an accessory sinus of the nasopharynx and appreciate its three main divisions, viz., the Eustachian tube, tympanic cavity, and mastoid cells. The tympanic cavity is divided into a lower part, the atrium, and an upper, the attic. The attic, to us the most important division, contains the head of the malleus and most of the incus, and is frequently shut off from the rest of the cavity by folds and reduplications of mucous membrane. When these become swollen by inflammation, the separation may be complete, the antrum and mastoid cells being shut off from receiving air, their normal contents, while the secretion of mucus and the products of inflammation are prevented partially or entirely, as the case may be, from passing out through the passage that connects the antrum with the attic and tympanic cavity. The antrum is the earliest developed mastoid cell; it is present at birth and is often the only one present until about the third year, at which time other cells begin to develop radiating from it. It is a cell constantly found, varies much in size and somewhat in posi-

*Read before the Medical Society of the State of New York, New York City, October 16, 1901.

tion, but it is located at the upper part of the mastoid, posterior to, and on a level above, the greater part of the tympanic cavity, or rather, its floor is on a level, the patient in an upright position, with the attic with which it is continuous by means of the bony passage—the aditus ad antrum.

Beyond the antrum and connected with it at many points are a great many other cells, which go to make up the cells of the mastoid. These cells lie mostly below and external to the antrum, but often above and anterior to it over the superior wall of the external auditory canal. The antrum is then no more a part of the mastoid than it is of the tympanic cavity and partakes of inflammation of the latter, being, as a matter of fact, the connecting link between the tympanic cavity and the mastoid cells. The structure and size of these cells vary greatly in different subjects and no two mastoids are just alike—in some persons there being but the antrum and one other or a few other small cells, the rest of the bone being hard and sclerosed, while in other persons there may be any number of cells, the whole bone consisting of a thin cortex with a perfect network of cells filling up the rest of the bone. The relation of the antrum and the mastoid to the brain and other contiguous parts is, from a pathological and surgical point of view, most interesting and important. There is no other surgical region in the body confined within an area of a half inch in diameter where, in operating, one may strike so many different important structures, the injuring of any one of which might be so disastrous. The roof of the tympanic cavity and of the antrum, the tegmen tympani, is a plate of bone as thin, even in adults, as tissue paper, seldom thicker than writing paper, and in children and often-times in adults may be entirely wanting. The lateral sinus, one of the large venous sinuses of the brain, is located variously in relation to the mastoid and is often so far forward that it is wounded by the most careful and experienced operators in doing the ordinary mastoid operation. The horizontal semicircular canal is very close to the deeper side of the antrum and the Fallopian canal, containing the facial nerve, winds about and is often involved in acute otitis and may be easily wounded in operating. The goal in all mastoid operations is the antrum, because all extensions of inflammation have been from this point, and all cells will drain into it unless prevented by granulation tissue, etc. Open the bone an eighth of an inch too far back, and you may open full on the lateral sinus, an eighth of an inch too high, and the middle cerebral fossa is entered; an eighth or a quarter of an inch too low, and the facial nerve may be wounded, with resulting facial paralysis; carry the chiseling too deeply in your search for pus, say three-quarters of an inch from the cortex, and you are in instant danger of going through the antrum, perhaps not recognizing it, and into the horizontal semicircular canal. Unfortunately, before operating, we cannot tell, in any individual case, just what the relation of the antrum is to these important contiguous structures.

This description of the middle ear has been given

to emphasize the importance of an early diagnosis and an early proper treatment of acute otitis media and mastoiditis.

Acute otitis media is always present even in mild cases during the course of measles and scarlet fever, and is a very usual complication of influenza and diphtheria, and may be the starting point and again the result of bronchopneumonia, acute gastro-enteritis and other infectious or contagious diseases, as smallpox, syphilis and typhoid fever. It is perhaps the most common cause of meningitis, cerebral and cerebellar abscess, and there is no question whatever but that meningitis, the cause of death in so many infectious diseases, has resulted from an extension of inflammation and infection from the middle ear, which during life had not been recognized. Acute otitis media, catarrhal or suppurative, generally results from an infection derived from the nasopharynx. I believe that in every case of suppuration of the middle ear the mastoid is always involved, the antrum certainly is. I cannot see how it can escape, but I can readily see how there may be no symptoms which point to mastoid involvement. Thirty children, dying from various complications of measles in Munich, were autopsied with special reference to their ears, and in every single case, without one exception, pus was found in the mastoid, and yet, in the great majority during life, the ears were not thought to be involved and many were not even examined. Given a case of acute otitis media, it is important to make an early diagnosis of mastoid inflammation in order that it may be promptly and properly treated because of the serious results that may follow an unrecognized suppuration in this bone, which is filled with air cells that are lined with mucous membrane subject to great turgescence. This swelling dams back the secretion containing the bacilli that have entered and which find here an ideal place for growth and culture, having heat, moisture and absence of air. The mucus secretion of the cells quickly becomes mucopurulent and, as the mucous membrane becomes destroyed, the bone breaks down, granulations form and a bone abscess is established. It is important to make the diagnosis of mastoid involvement early, because of the great rapidity with which this bone disintegrates, and we have gone far toward the diagnosis if we admit the fact that the antrum always participates in every case of acute suppuration of the middle ear. If in acute suppuration of the tympanic cavity and antrum drainage be not quickly established through spontaneous or artificial perforation of the drum membrane, the inflammation will extend to the various cells of the mastoid, first as a congestion, then as a catarrhal, and later suppurative inflammation of the lining mucous membrane.

The symptoms of acute otitis media are perhaps in the order of their occurrence, fulness in the ears, tinnitus, some degree of deafness, pain at first dull then most acute and excruciating, and causing children to scream in paroxysms. With adults the pain is more constant, steadily increases and prevents sleep. The pain is aggravated by blowing the nose

movements of the jaw, as in eating, and the most tender point at first is on deep pressure in front of the tragus. Infants and young children evidence the pain by putting the hand to the affected ear or side of the head. They are peevish, scream suddenly, waking from sleep, and are often thought to be teething or affected with worms. In a child the temperature is 101° to 104° F., with the pulse correspondingly rapid, vomiting may occur, and not infrequently convulsions. A diagnosis of pneumonia, typhoid fever or meningitis may have been made and not changed until a discharge of pus is discovered from the child's ear and with this an abatement of all symptoms and a clearing up of the diagnosis. In the same way, in the case of an adult, there is a rapid improvement of all symptoms coincident with the rupture of the drum, and the drainage of the tympanic cavity, temperature drops to almost, if not quite, normal, pain lessens, and the discharge, at first serous or mucopurulent, reaches its height of profuseness by the fifth to the seventh day, after which it begins to subside and terminates in ten days to three weeks, the drum healing, hearing improving and becoming normal in three to five weeks. This is the average course of uncomplicated, though severe, acute suppurative otitis media without symptoms that call especial attention to the mastoid. At the same time the mastoid was involved and was contributing its secretion to the discharge as seen at the outer ear. The reason that attention was not called to it was because spontaneous rupture of the drum occurred early, the perforation was large, there was no serious blocking of the passage leading to the antrum, and the drainage was free and good, with no pressure of retained fluid to cause pain.

Let conditions be different and the symptoms change. If the drum does not rupture early, the pus is retained in the tympanic cavity. Pain in the ear is greatly increased, temperature increases and an examination of the drum would show it to be greatly reddened and probably bulging. The bulging soon becomes greater and the pain is now referred not alone to the front of and in the ear, but back of the ear and brought out especially by deep pressure of the finger over the antrum. Superficial pressure of the finger may elicit no pain or tenderness. The pain is brought out by deep pressure of the finger over the antrum or the tip of the mastoid, and it is a matter of common experience that it is often entirely overlooked by the attending physician who does not examine properly for it. A comparison of the two sides may assist, the finger of one hand on the affected mastoid, the finger of the other hand on the normal mastoid, and the patient will quickly appreciate the difference in the two sides. The superior and posterior wall of the external auditory canal next to the drum is reddened. This redness is early accompanied by swelling and bulging, and may be so great as to occlude the canal and shut off a view of the drum, at the same time increasing the obstruction to the outflow of pus, should the drum rupture. This redness of the posterosuperior wall of the external canal is charac-

teristic and important, because it is an early evidence of mastoid inflammation. By this time the drum will probably rupture and a discharge of pus occur in the external canal, but generally the perforation is not large enough freely to drain and the mastoid inflammation will continue to increase. The discharge may be very profuse, and yet with a continuance and an increase of pain over the whole mastoid and especially on deep pressure over the antrum, and with this the swelling and redness of the posterosuperior wall of the external auditory canal, we may be sure the mastoid inflammation is increasing. The pain settles down to a steady, heavy, dull pain, referred not alone to the mastoid but to the whole of that side of the head. The mere gentle rubbing of the surface of the hair is painful. Temperature in adults is not high, running from 99° to 101° or 102° F., or it may be not above normal. In adults high temperature and chills are more frequently absent than present, contrary to what might perhaps be expected. These symptoms may all continue for weeks before the old, so-called classical signs of mastoid inflammation—redness, heat and swelling over the mastoid, occur. If the patient live long enough, and he often will, these symptoms will come on, but they are not early, they are very late signs of mastoid abscess, and while waiting for them the patient has suffered a great amount of pain, the bone is broken down and is destroyed, and the patient has been in constant danger of meningitis or lateral sinus thrombosis. In adults, with old chronic suppuration of the middle ears, the mastoid is sclerosed, and if one waited in such a case for the abscess to reach the surface, his operation would almost surely be upon the cadaver. In children, external swelling, redness and heat come on very early because here the inflammation is either a periostitis or, the mastoid being very thin, perforation occurs very early. In children, too, the auricle is early seen pushed out and forward.

As swelling, both in children and adults, comes on, the pain becomes less severe than it had been, and with perforation of the cortex and the periosteum the relief is very great. Of course now there is fluctuation, but it may have taken six weeks to three months for this to occur. Swelling below the tip at the angle of the jaw and down the side of the neck under the sternomastoid occurs in a percentage of cases known as Bezold's mastoiditis. Here the extension of the disease has been through the digastric groove. It may happen that the discharge, which had been profuse and without much pain, diminishes or ceases, and with it an increase of pain occurs. This is always a danger signal, meaning that the drainage from the antrum has ceased and calls for surgical intervention.

The nature of the infecting germ has everything to do with the severity of the inflammation and of the prognosis. Staphylococcus and pneumococcus infection are commonly altogether less severe than streptococcus. The presence of the latter in large quantities in the pus from the middle ear means a very probable destructive process in the mastoid. The bacillus of la grippe has a pronounced predilec-

tion for the middle ear. Suppurative otitis media and mastoid abscesses were, during the recent epidemic of last winter and spring, very frequent complications of that particular epidemic. The bacillus of influenza, as we can easily see its work in the nose, gives rise to a great amount of swelling of the mucous membrane, shutting off the ventilation of the accessory sinuses and producing very quickly a very profuse suppuration. As we see it in the nose, so it occurs in the middle ear, and we are not surprised at the rapid progress of the middle ear suppuration, the certain involvement of the mastoid and the probable abscess resulting from it. Influenza involving the mastoid is always severe and very destructive.

The treatment of acute mastoiditis depends upon the stage of the inflammation and the cause of the middle ear infection. The mastoid being inflamed in every case of middle ear suppuration, the most important thing is to see that good drainage is afforded the tympanic cavity, and that is insured only by a free incision of the drum. Paracentesis is not enough. The drum should be freely incised under cocaine in adults, often under general anesthesia in children, making the incision in the posterior and inferior quadrant of the drum, extending it well up behind to the region of the attic, should there be bulging there, as in most severe cases there will be. The patient in bed, a brisk purge, attention to the nasopharynx and free drainage through the drum, in a vast majority of cases of acute mastoiditis, the inflammation will at once begin to subside, mastoid pain diminishing and soon disappearing, the case terminating favorably with recourse to no further measures than keeping the drainage free. Syringing of the external canal with a hot boric acid or other mildly antiseptic solution may be all that is required, and this should be done only by one who has been properly instructed and is capable of carrying out the instructions. The syringe should be one, such as the soft rubber bulb, that can be boiled, and should be boiled before and after each use of it. The objection to syringing in the hands of indiscriminate persons is that there is greater danger of introducing new infection than of removing any of the old, mixed infection resulting. Should the incision close or prove inefficient for good drainage, another should be made without any hesitation or delay. If there be any unusual amount of swelling in the postsuperior wall of the auditory canal, a free incision extending from the margin of the drum outward and through the periosteum to the bone should be made and, to be of value, should be made early. This incision is known among otologists as Wildes' internal incision, in contradistinction to his famous incision made back of the auricle, and which latter is now abandoned except in the case of children with periosteal abscess.

It is not an infrequent practice for physicians to insufflate powdered boric acid into the external auditory canal during acute suppuration of the middle ear. The practice is an absurd one and one full of danger to the patient, as the powder acts as a dam to the drainage and is mentioned here only

because many persons still follow this most unsurgical procedure. The introduction of gauze through the perforation for drainage is in theory fine, but in practice not feasible, because of the pain attending the frequent changing of the gauze.

As before stated, the treatment outlined will clear up a great majority of cases of acute mastoid inflammation and suppuration. Not all, however, and particularly those of the streptococcus and influenza variety. If the pain continue and tenderness on deep pressure over the mastoid be not allayed, ice applied by the aural icebag or, better still, cold through the Leiter coil should be used, and, to be of value, should be kept on continuously for twenty-four hours. If at the end of twenty-four hours the pain and tenderness have ceased, the application can be discontinued, but if they are still present, the ice bag or the coil should be renewed for twelve hours and at the utmost for twenty-four hours longer, in all for thirty-six to forty-eight hours from the beginning. The cold causes a contraction of the bloodvessels in the swollen mucous membrane lining the antrum and the cells, thereby lessening the swelling and giving the cells a chance to empty themselves of the dammed-up mucopus and pus, and with no obstruction at the drum, the perforation being kept free, the majority of these cases, more severe than the first kind, will terminate in recovery without recourse to an opening of the mastoid. If at the end of thirty-six to forty-eight hours there is no let-up in the pain, the longer continuance of the ice will probably only increase the tendency to the death of the bone and so become harmful. The proper time for the use of ice is in the early stage of the inflammation, and if used at this time, and used properly, it will exert such an influence on the inflammation that many cases which would appear to be going on to operation will recover without it. My experience is that cold is altogether preferable to heat, though some experienced otologists, notably Randall, prefer and make use of continued heat, and report results equally good with those using ice.

Much stress has been laid upon the symptom of pain, and for this reason morphine ought never, in this disease, be given for its relief. It can have no other effect than to relieve and so entirely mask the one symptom that it is so important to properly gauge. So much depends here upon the pain that it is hazardous to both patient and physician to throw away deliberately the most important subjective and diagnostic symptom. If pain is so great that morphine seems required to relieve it, an operation is most urgently demanded. Phenacetin will not mask the pain but will quiet the patient's restlessness.

If, after using the ice, the pain on deep pressure over the antrum subside even slightly and the general tenderness diminish, discharge from the ear continuing freely, operation may be postponed. If on the other hand, pain over the mastoid continues increasing in severity and extending up the side of the head, a slight elevation of temperature persisting, sleeplessness, the swelling and redness of the

posterosuperior wall of the external canal not diminishing, but increasing, the mastoid under these circumstances should be opened. If a discharge, which has been free, should lessen and at the same time pain increase, there should be no delay whatever in chiseling into the antrum. Should vomiting, nausea and dizziness supervene, we have evidence of meningeal irritation and congestion, which, unless quickly relieved by drainage from the antrum, will become a meningitis, and our operation may be late, but even with these symptoms, together with delirium, the mere mastoid operation without any attempt to enter the cranial cavity may be all that is necessary to save the patient's life. Without question a localized pachymeningitis is frequently present when the mastoid operation is done and is recovered from as result of this operation. An extradural abscess, the tegmen tympani having broken down, is not infrequently found to be present when the mastoid is opened, and it is often recovered from, free drainage occurring as a result of the mastoid opening.

The goal in all mastoid operations is the antrum, and this should always be first found and entered, and is done by means of the chisel, hammer, rongeur forceps and spoon. In recent cases it may be sufficient merely to drain the antrum, but ordinarily there has been quite a destruction of the bone and all the soft bone, granulation tissue, etc., should be removed, and this will often mean the removal of the whole cortex and all mastoid cells extending down to the tip, at which place there is generally a large cell, and it will often occur that the only pus found will be in this most dependent cell, and it is important that exit be afforded it.

BERLINER KLINISCHE WOCHENSCHRIFT.

March 24, 1902. (39 Jahrgang, No. 12.)

1. Streptococcus Toxin. ALEXANDER MARMOREK.
2. Marie's Hypertrophic Osteo-arthritis. ALFRED SCHITTENHELM.
3. A Contribution to the Study of the Syphilis Bacillus. MAX JOSEPH and PIORKOWSKI.
4. The Mechanical Influence of Respiration and Circulation. BUTTERSACK.
5. Serum Diagnosis in Pulmonary Tuberculosis. FRANCESCO DE GRAZIA.
6. Idiopathic Dilatation of the Esophagus Without Anatomical Stenosis. THEODOR ROSENHEIM.

1.—Two things prevent the formation of streptococcus toxin, the composition of the culture media and the natural peculiarities of the germs themselves. The addition of bouillon extract to the medium favors the development of the toxin. Better still are leucin and glycoll, added to peptonized bouillon. Marmorek's experiments show that the toxin of all streptococci is the same. [M. O.]

2.—Schittenhelm reports in detail a case of Marie's hypertrophic osteo-arthritis in a laborer, aged 20. Swelling of the finger tips and of the joints of the hands, knees, feet and toes was first noted at 7 years. Pain in the left side and cough followed. There was no deformity of the upper jaw or of the vertebral column. Most of the swelling was shown by radioscopy to be in the soft parts, the periosteum being affected only on the phalanges, metacarpal and metatarsal bones. The decrease in the measurements showed a diminution in the swollen soft parts,

the bone remaining unchanged. Chronic pneumonia of the left lower lobe, endocarditis and chronic nephritis also existed. [M. O.]

5.—After a thorough review of the subject, De Grazia describes his own experiments. He shows that the blood serum of many animals, free from tuberculosis, may agglutinate homogeneous cultures of tubercle bacilli. If the bloodserum of patients with different infectious diseases agglutinates tubercle bacilli cultures in the strength which Arloing and Courmont advise, this reaction is not specific of tuberculosis. Besides, the bloodserum of patients with phthisis agglutinates cultures of other micro-organisms. Therefore this reaction is of no value in forming the prognosis or diagnosis of phthisis. [M. O.]

JOURNAL DES PRATICIENS.

March 22, 1902. (16me. Année, No. 12.)

1. Peri-uterine Suppuration. JUST LUCAS-CHAMPIONNIERE.
2. Melanoderma and Pediculosis. PAUL FABRE.
3. Rachicocainization. A. GUINARD.

1.—Lucas-Championnière divides peri-uterine suppuration into salpingo-ovaritis, ovaritis and salpingitis. The first class is most common, with edema and parenchymatous lesions. Pus may be found in the ovary or tubes, though the inflammation in the rest of the structures affected, may not have reached suppuration. Infection may come from the uterus, intestines, appendix, etc. The pus may be sterile or may contain various bacteria. In such cases he advises removing the diseased ovary first, watching the organs of the opposite side. He performs laparotomy with the patient on her back, not in the Trendelenburg position. He insists upon the danger of infection from small erosions of the neck of the uterus, and advises rest, laxatives and warm applications for leukorrhea, never curettement. [M. O.]

2.—Fabre reports a case of melanoderma with pediculosis in an old man of 75, who died 36 hours after admission to the hospital. After a detailed review of the literature, he concludes that melanoderma which follows pediculosis differs from other forms of melanoderma in that no diathesis exists, in the absence of signs of Addison's disease, in the diffusion of the pigmentation and in the presence of pediculi corporis. Finally this pigmentation disappears when mercurial fumigation, applications or sulphur baths are employed. [M. O.]

3.—Guinard states that the poor results achieved by others in rachicocainization for sciatica were due to the use of aqueous solutions of cocaine, 1 to 100 or 1 to 200, and to allowing the patient to get up and walk about after the injections. He should, on the other hand, lie quietly for two or three days after the injection. In the injection the cocaine should be diluted by the cerebrospinal fluid at first withdrawn, not by water. [M. O.]

Massive Albuminuria with Compression of the Ureters by Intrapelvic Fibroids. L. Dauvergne has written an interesting article in *Le Bulletin Médical* (May 28, 1902), in which he reports the case-history of a woman of 55, in the service of Professor Poncet, of Lyons. She had borne 4 healthy infants without any ill effects. Severe metrorrhagia began 8 years before, occurring every 3 weeks, causing marked temporary anemia. For some time she had noted an increase in the size of the abdomen, with dysuria, vomiting and sudden retention of urine 3 days before admission. A little urine, obtained by catheterization, was almost wholly albumin. Vaginal examination revealed a tumor anterior to the vagina, reaching to the umbilicus. Total abdominal hysterectomy was performed with total ablation of the adnexa and fibroids. She recovered, and albumin definitely disappeared. Dauvergne believes the albuminuria to have been due to direct, gradual, incomplete compression of the ureters by the tumors. When this occurs suddenly, with oliguria or anuria, with perhaps cerebral or uremic symptoms, the prognosis is good only when early operative intervention, the one mode of treatment, is possible. A review of the literature follows. [M. O.]

Health Reports.

Public Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General Public Health and Marine-Hospital Service, during the weeks ending July 19 and July 26, 1902.

SMALLPOX—United States.

	Cases...	Deaths.
CALIFORNIA:	San Francisco .. June 29-July 6..5	
FLORIDA:	Live Oak .. July 11 .. .1	
	Palmetto .. July 11 .. .1	
ILLINOIS:	Belleville .. June 5-12 .. .1	
	Chicago .. July 5-12 .. .5	
	Freeport .. July 5-12 .. .1	
INDIANA:	Indianapolis .. June 29-July 5 ..11	
KANSAS:	Wichita .. July 5-12 .. .1	
KENTUCKY:	Covington .. July 5-12 .. .6	
	Lexington .. July 5-12 .. .1	
MASSACHUSETTS:	Boston .. July 5-12 .. .7	1
	Cambridge .. July 5-12 .. .13	2
	Everett .. June 28-July 12..6	1
	Lowell .. July 5-12 .. .7	
	Melrose .. July 5-12 .. .1	
	Newton .. July 5-12 .. .1	
	Somerville .. July 5-12 .. .3	
MICHIGAN:	Detroit .. July 5-12 .. .3	
MISSOURI:	St. Louis .. July 6-13 .. .16	
MONTANA:	Butte .. June 6-July 13..6	
NEBRASKA:	Omaha .. July 5-12 .. .8	
NEW HAMPSHIRE:	Nashua .. July 5-12 .. .1	
NEW JERSEY:	Hudson County, Jersey City included .. July 6-13 .. .18	3
	Newark .. July 5-12 .. .10	1
NEW YORK:	New York .. July 5-12 .. .28	9
OHIO:	Cincinnati .. July 4-11 .. .5	
	Cleveland .. July 5-12 .. .38	4
	Hamilton .. July 5-12 .. .1	
	Toledo .. June 29-July 12..3	
PENNSYLVANIA:	Zanesville .. June 1-30 .. .1	
	Allentown .. July 5-12 .. .1	
	Erie .. July 5-12 .. .3	
	Philadelphia .. July 5-12 .. .18	3
	Pittsburg .. July 5-12 .. .32	1
	Scranton .. June 28-July 5..1	
RHODE ISLAND:	Providence .. July 5-12 .. .1	
TENNESSEE:	Memphis .. July 5-12 .. .1	
UTAH:	Ogden .. June 1-30 .. .9	
	Salt Lake City .. July 5-12 .. .3	
VIRGINIA:	Danville .. July 7-14 .. .3	
WASHINGTON:	Tacoma .. June 30-July 6..1	
WISCONSIN:	Green Bay .. June 6-13 .. .1	
	Milwaukee .. July 5-12 .. .3	

SMALLPOX—Foreign.

ARGENTINA:	Montevideo .. June 4-11 .. .49	3
AUSTRIA:	Prague .. June 21-28 .. .2	
COLOMBIA:	Cartagena .. June 23-29 .. .	1
	Panama .. June 30-July 7..6	
EGYPT:	Cairo .. June 10-17 .. .	1
GREAT BRITAIN:	Birmingham .. June 28-July 5..2	
	Liverpool .. June 30-July 5..3	
	London .. June 21-28 .. .129	17
	Sunderland .. June 21-28 .. .1	
INDIA:	Bombay .. June 10-17 .. .	9
	Calcutta .. June 7-14 .. .	3
	Karachi .. June 1-14 .. .2	1
ITALY:	Naples .. June 21-28 .. .5	
MEXICO:	City of Mexico .. June 29-July 6..1	1
RUSSIA:	Moscow .. June 14-21 .. .15	2
	Odessa .. June 21-28 .. .3	
	Warsaw .. June 14-21 .. .	3

YELLOW FEVER.

COLOMBIA:	Panama .. June 30-July 7..5	2
CUBA:	Gibara .. July 16 .. .	1
MEXICO:	Vera Cruz .. June 28-July 5..9	8

PLAGUE.

INDIA:	Bombay .. June 10-17 .. .	55
	Calcutta .. June 7-14 .. .	65
RUSSIA:	Odessa .. July 10 .. .Present	

CHOLERA—Insular.

PHILIPPINE ISLANDS:	Manila .. May 10-24 .. .236	186
	Provinces .. May 10-24 .. .804	549

CHOLERA.

CHINA:	Kweilan .. July 12 ..10,000 deaths	
	Pinglo .. July 12 ..3,000 deaths	
	Shanghai .. June 1-30 .. .20 cases	
	Tangku .. June 7 ..Epidemic	
INDIA:	Bombay .. June 10-17 .. .	2
	Calcutta .. June 7-14 .. .	32

SMALLPOX—United States.

C. D.

CALIFORNIA:	Sacramento .. July 5-12 .. .3	
ILLINOIS:	Belleville .. July 12-19 .. .4	
	Chicago .. July 12-19 .. .5	
	Joliet .. July 1-15 .. .15	
INDIANA:	Indianapolis .. July 5-12 .. .12	
KENTUCKY:	Covington .. July 12-19 .. .11	
MASSACHUSETTS:	Boston .. July 12-19 .. .8	2
	Cambridge .. July 12-19 .. .7	
	Everett .. July 12-19 .. .3	1
	Lowell .. July 12-19 .. .3	
	Medford .. July 12-19 .. .1	
	Newton .. July 12-19 .. .2	
	Somerville .. July 12-19 .. .13	1
MISSOURI:	St. Louis .. July 13-20 .. .11	
NEBRASKA:	Omaha .. July 12-19 .. .3	
NEW HAMPSHIRE:	Nashua .. July 12-19 .. .2	
NEW JERSEY:	Hudson County, Jersey City included .. July 13-20 .. .3	2
	Newark .. July 12-19 .. .7	2
NEW YORK:	New York .. July 12-19 .. .15	3
OHIO:	Cincinnati .. July 11-18 .. .4	
	Cleveland .. July 12-19 .. .32	6
	Dayton .. July 12-19 .. .3	
	Hamilton .. July 12-19 .. .2	
PENNSYLVANIA:	Erie .. July 12-19 .. .2	
	Johnstown .. July 5-19 .. .14	1
	McKeesport .. July 5-12 .. .4	
	Philadelphia .. July 12-19 .. .13	3
	Pittsburg .. July 12-19 .. .10	2
RHODE ISLAND:	Providence .. July 12-19 .. .3	
WASHINGTON:	Tacoma .. July 7-14 .. .1	
WISCONSIN:	Green Bay .. July 13-20 .. .3	
	Milwaukee .. July 12-19 .. .2	

SMALLPOX—Foreign.

AUSTRIA:	Prague .. June 28-July 5..3	
BELGIUM:	Antwerp .. June 21-July 5..1	4
CANADA:	St. John .. July 12-19 .. .1	
CHINA:	Hongkong .. May 24-June 14..1	1
COLOMBIA:	Panama .. July 7-14 .. .4	
FRANCE:	Marseilles .. June 1-30 .. .	6
	Paris .. June 21-28 .. .	1
GREAT BRITAIN:	Glasgow .. July 4-11 .. .2	
	London .. June 28-July 5..58	13
GREECE:	Athens .. June 28-July 5..1	
INDIA:	Calcutta .. June 14-21 .. .	1
	Karachi .. June 15-22 .. .3	2
	Madras .. June 14-20 .. .	1
ITALY:	Palermo .. June 21-July 5..18	4
MEXICO:	Vera Cruz .. July 5-12 .. .1	1
RUSSIA:	Moscow .. June 21-28 .. .10	4
	Odessa .. June 23-July 5..4	
	St. Petersburg .. June 21-28 .. .10	1
SPAIN:	Corunna .. June 28-July 5 ..	1

YELLOW FEVER.

COLOMBIA:	Panama .. July 7-14 .. .3	1
COSTA RICA:	Port Limon .. July 3-10 .. .	1
MEXICO:	Alvarado .. July 7 ..Epidemic	
	Cordoba .. July 7 ..Present	
	Vera Cruz .. July 5-12 .. .22	9

PLAGUE.

CHINA:	Hongkong .. May 24-June 14..194	191
INDIA:	Calcutta .. June 14-21 .. .	56
	Karachi .. June 15-22 .. .20	16

CHOLERA—Insular.

PHILIPPINE ISLANDS:	Manila .. May 25-June 7..132	118
	Provinces .. May 25-June 7..1018	429

CHOLERA.

CHINA:	Hongkong .. May 24-June 14..53	49
INDIA:	Calcutta .. June 14-21 .. .	31
	Karachi .. June 15-22 .. .45	37
JAPAN:	Karatsu .. June 22 .. .41	21

A Case of Sudden Death in Appendicitis.—At a meeting of the Société Médicale des Hôpitaux de Paris, held May 2, 1902, Dr. Lion reported a case of appendicitis in an unmarried woman, aged 27. Her illness began suddenly with severe pain, which soon became localized to the right fossa. The muscles of the abdominal wall on the right side were rigid; there was no meteorism. She was kept at rest in bed, ice applied over the appendix, opium given and milk diet. The pain disappeared and she seemed well on the road to recovery. Exactly 2 weeks after the onset of her illness, she fell over dead, after urinating. She had had no fever for a week. An autopsy was not allowed. The cause of death remains unknown, though pulmonary embolism is suggested as a possibility. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, May 8, 1902.)

[M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. Reprints (250) Original Articles will be furnished gratis to Authors making the request.

The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8.

VOL. X, NO. 6

AUGUST 9, 1902

\$5.00 PER ANNUM

The Isthmian Canal from a Medical Standpoint.—

Professor William H. Burr, in his paper on the Panama Canal (*Popular Science Monthly*, August, 1902) discusses the sanitary aspects of the matter, specially the relative healthfulness of the two routes—Panama and Nicaragua.

There is undoubtedly a vast amount of unhealthfulness on the Panama route and comparatively little on the Nicaragua route. But the difference is accounted for by the fact that there is a comparatively large population along the former route, and also at its terminal points, the cities of Colon and Panama; while there is scarcely any population at all along the latter route. In other words, there are but few people to get sick along the Nicaragua route. Given a larger population, such as is found

Panama, and Nicaragua would probably produce quite as much yellow fever and malaria as the former place.

The gist of Professor Burr's remarks, however, is in his suggestions about the need of sanitation, and these suggestions apply as well to one route as to the other. The popular belief that Central America is necessarily intensely unhealthful is not well founded. It is not intensely unhealthful—it is merely intensely unsanitary. The Latin-American peoples there live without regard for the first elements of sanitation. It is the old story of Cuba over again. If the American people build the canal (whether it be in Panama or Nicaragua), they must, and doubtless will, be prepared to spend a good deal of money to render the region sanitary. As Professor Burr says, the sanitary laws will have to be enforced with strict military discipline.

We think we can be trusted to do all that. We have served an apprenticeship in Cuba, and are giving another one in the Philippines, and we can doubtless apply our knowledge and our discipline in making Panama a fit place for civilized men to live in and to sail through.

The Problem of Consciousness.—Professor Charles S. Minot, of Harvard, delivered the presidential address at the meeting of the American As-

sociation for the Advancement of Science and chose for his subject the Problem of Consciousness in its Biological Aspects. We confess that we have been disappointed in the address. The author discusses his subject from a metaphysical rather than from a biological standpoint.

It is too much to expect any man to define consciousness. The greatest minds have tried it and have failed. But when any highly intelligent man like Professor Minot makes the attempt, we expect at least to be edified by his very failure. We look for some enlargement of our knowledge, if not for a good definition. But Professor Minot, having started out to present to us the problem of consciousness in its biological aspects, arrives at the astonishing conclusion, which he prints in italics, that "*consciousness is neither a form of energy nor a state of protoplasm.*" If consciousness is not a state of protoplasm, we fail to see how it has any biological aspects. Professor Minot has apparently shrunk from the old-time bogey of "materialism," and has merely involved himself in a solecism.

But his attempt to define consciousness is interesting. "The function of consciousness," he says, "is to dislocate in time the reactions from sensation." This could be said to be the function as much of memory as of consciousness. It completely ignores the act of *recognizing* these reactions after they have been "dislocated" from sensations—in other words, of being conscious.

It is curious how every one, will he, nill he, reasons in a circle when he attempts this metaphysical stunt. We once defined consciousness as "the power of perceiving the relations of objects" (a definition which is not so far away from Professor Minot's), but here, too, we are forced to admit we were defining in a circle, for to say that one perceives the relations of objects is simply to say in other words that one is conscious.

The truth seems to be that consciousness is one of the ultimate phenomena of existence and cannot be analysed. In this sense it is like other forces, such as "electricity" and "life" and "gravitation."

Consciousness is consciousness. As Professor Minot says, consciousness is the oldest problem of philosophy and one of the youngest problems of science; but we cannot agree with him that it is neither a form of energy nor a state of protoplasm. If it is not a state of protoplasm, what is it?

Obstruction of the Coronary Arteries.—Mr. John M. Cowan has contributed to the *Glasgow Medical Journal* for April, 1902, a valuable paper on the obstruction of the coronary arteries. For properly nurturing the cardiac muscle we find that the means which nature has adopted admirably meet most contingencies. The coronary arteries arise from the first part of the aorta, at which point the blood contains the largest proportion of oxygen and the smallest quantity of carbonic acid. In proportion to the size of the organ the vessels themselves are very large and in addition to receiving blood from the coronary vessels the endocardial blood can afford some assistance in the nutrition of the heart. We are well aware how frequently the coronary arteries are diseased, and, while pathological processes usually lead to disease of the myocardium, it by no means follows with certainty that this will happen. Cowan describes with some minuteness the origin and distribution of the coronary arteries. He calls attention to the well-known anatomical fact that, while the main trunks anastomose with each other, there is no arterial connection between any of their branches and these latter are, to all intents, end-arteries. However, the main horizontal and vertical branches of the right and left arteries anastomose with each other by minute twigs and thus form around the heart two rings of vessels which are almost at right angles to each other. From the main branches of these rings smaller arteries penetrate the muscle, giving off still smaller vessels, which end in a very free capillary system so extensive as to surround each individual cell on every side. Cowan is not in accord with those writers, including J. L. Steven and R. Marie, who believe that the arterial inosculation is so trifling and so far apart that they are unable in any case to compensate the vascular obstructions, except in their immediate neighborhood. He has examined three cases in which one coronary artery was obstructed and the other hypertrophied, and he does not believe that these cases are unique. In the third case the right artery was obstructed and the left dilated. He remarks also of the coronary arteries and a few small branches to the aorta and the pulmonary artery that an anastomosis of these with the corresponding branches of the bronchial arteries is possible and has even been described. The endocardial blood can only influence a very

few layers of the adjacent muscle. Obstruction in the coronary arteries may occur at their origins or in their course. If a main artery becomes gradually obstructed, compensatory enlargement of the other artery may prevent damage to the cardiac muscle, but, as we should expect from the anatomical considerations, perfect compensation must be rare. If the obstruction is rapid, sudden death will naturally result. Should the obstruction involve a small artery, whether gradually or rapidly, no compensation is possible and the cardiac muscle must suffer. Mr. Cowan makes the interesting observation that lesions of the coronary arteries by no means always lead to alterations in the myocardium and, conversely, he has examined sections of eleven hearts in which the coronary arteries were normal, but in which the muscle was diseased. It has been demonstrated that there is a relation between the size of the coronary arteries and the weight of the heart, which is an important one, for it is evident that a patient whose relative cardiac area is large will have a greater possibility of hypertrophy than one whose relative area is small. Mr. Cowan's paper calls attention to the fact that the possibility of repair when the main branches of the coronary arteries are obstructed, is present, to however slight a degree and he further emphasizes a point, the importance of which is being more and more recognized, that lesions of the coronary arteries are only one cause out of many in the production of disease of the myocardium.

The Morbid Anatomy of the Infectious Peripheral Neuritides.—The clinical aspect of neuritis following infectious diseases, especially diphtheria, is well established, and its selective affinity for the peripheral nervous system recognized, notwithstanding the occasional spinal invasion has been observed. A series of experiments regarding the neuropathology of the condition, recently conducted by Dopter and Lafforgue (*Archives de Méd. Expérimentale et d'Anatom. Patholog.*, T. xiii, 1901, No. 4) is worthy of mention and record. In order to elucidate the changes that occur in the nerves, after inoculation with the toxins of diphtheria, plague, cholera, tuberculosis and with those of the bacilli, pyocyanus, coli communis, streptococci, etc., the authors conducted their experiments upon guinea-pigs, using the area supplied by the sciatic nerve as the basis for their researches. Now it is a noteworthy feature that the clinical symptoms produced after the inoculations were proportionately insignificant compared to the histological changes, which goes to show two things: First, that experimental results alone, however scientifically conducted, should

applied clinically with caution, and, second, that morbid processes resulting secondarily from bacterial invasion in the human subject are proportionately more virulent and persistent than those produced by experimental interference. What the authors have done is to enrich us with knowledge regarding the neuropathological changes. The anatomical changes were found to be identical in the cases of all toxins. The first histological change observed was in the vicinity of Ranvier's nodes, where the myelin either entirely disappeared or still very slightly surrounded the axis cylinder, while in the center of the myelin, between the nodes, the tinctorial properties were unaltered. Likewise the sheath of Schwann and the axis cylinder were unchanged. In the case of grave toxic invasion the myelin first suffers destruction and appears in drops between the nodes, and then entirely disappears, so that finally only the sheath of Schwann and the axis cylinder remain. In the latter instance the axis cylinder also undergoes metamorphosis, as signified by its decreased or absent staining properties and the transformation of its regular thread-like appearance to an irregular knotty appearance. Later on the damaged structures may be gradually replaced by an increasing myelin sheath about the axis cylinder. Often healthy and diseased portions of the tissue lie side by side within the same nerve fiber. These histological changes again emphasize the regenerative power of nerves, especially when only partially destroyed, and also appear to explain the amenability of these conditions to treatment, or even to spontaneous improvement, as is clinically substantiated. It is yet to be explained why grave paralysis may follow apparently mild infection, outside of the established fact that the number of bacteria do not bear a direct proportion to the virulence of their toxins.

The Coronation of King Edward.—Nothing probably could show more plainly the confidence of the King's physicians in his progress toward recovery than the fact that they have advised (according to the reports received at the time of this writing) that the coronation take place on the 9th. inst. We say "advised," for we judge the ceremony would not have been fixed for such a comparatively early date without the full concurrence of the surgical and medical attendants. It is not conceivable that Sir Frederick Treves and his colleagues would take any great risk for the mere sake of having the coronation take place at an early date just to suit the exigencies of the London season. Therefore we conclude, in spite of rumors to the contrary, that King Edward is thoroughly convalescent.

It is now six weeks since the operation was performed, and the prolonged convalescence has been only such as was to be anticipated. The advocates of early operation—"an inch-and-a-half incision and a week and a half in bed"—will doubtless be confirmed by this case in their opinion that nothing is gained by delay. Without stopping to discuss this question, we will merely express our heartiest congratulations to the surgeons on the fact that they have so skilfully conducted the case that even in six weeks they are willing to take some chances in order to have the coronation proceed without further delay.

The medical world will watch with interest, and with not a little solicitude, to note how well the royal patient passes through what to a sick man must be something of an ordeal.

Tongue-Traction for Resuscitation of the Asphyxiated.—The *Scientific American* for July 26th. contains an illustrated paper on Laborde's electrical apparatus for maintaining tongue-traction in persons who have been drowned or asphyxiated. It has long been known that rhythmical traction on the tongue is one of the most efficient means for such resuscitation. Laborde maintains that even in apparently hopeless cases this means may give unexpected and gratifying results. He found that in dogs it was sometimes possible to revive them two or three hours after apparent death. A bulldog was chloroformed until respiration ceased; tongue-traction for a quarter of an hour revived the animal. In a second experiment this same dog (well named *Lazarus*) was asphyxiated, and the experiment was not begun until five minutes after the animal had apparently really died. Tongue-traction for two hours and a half was necessary and at the end of that time was efficient. The dog coughed and revived.

Laborde has now invented an electrical apparatus by which rhythmical traction on the tongue can be maintained for three hours. We should like to learn whether this instrument has been proved efficient in the cases of persons apparently drowned.

The Death-Rate of Philadelphia.—In spite of the disparaging reports about its internal condition that are constantly sent out by some of the citizens and newspapers of Philadelphia, this city has a very creditable death-rate to show to the world. According to the Marine-Hospital Reports, Philadelphia ranks third on the list of large American cities. The figures, which we copy from our news items of last week, are as follows: Chicago, 13.88; St. Louis,

17.67; Philadelphia, 18.27; Cincinnati, 18.88; San Francisco, 19.34; Boston, 19.7; New York, 20; Baltimore, 20.23; Washington, D. C., 21.14; New Orleans, 24.44; Charleston (the highest of all large American cities), 29.11.

We might commend these figures to some of our critics. They show that Philadelphia is near the head of the list; perhaps, indeed, this city is even nearer the head than the figures show. Chicago's figures, both for population and for death-rate, are notoriously mystifying. The big city on Lake Michigan has an enterprising census-bureau of its own.

Some of our home critics especially should meditate upon these figures; and, while not relaxing in their efforts for clean municipal politics, should cease denouncing some things at least in Philadelphia. The death-rate of this city compares favorably with that of the best European cities—which, excepting the ultra salubrious Chicago, are the best in the world.

New York, Boston and Baltimore newspapers please copy.

No Quackery at the St. Louis Fair.—Mr. J. A. Ockerson, Chief of the Department of Liberal Arts in the coming World's Fair at St. Louis, has noted our comments in a previous issue of this *Journal* on the necessity of excluding quacks from the Fair. In a letter, recently received by us, Mr. Ockerson calls our attention to Article XIII, Section 3, of the Rules and Regulations of the Exposition, and assures us that these will be strictly enforced. The section reads as follows:

Sec. III. Articles that are in any way dangerous or offensive; also patent medicines, nostrums and empirical preparations whose ingredients are concealed, will not be admitted to the Exposition. The Director of Exhibits, with the approval of the President, has the authority to order the removal of any article he may consider dangerous, detrimental to or incompatible with the object or decorum of the Exposition or the comfort and safety of the public.

This is the right kind of a rule; it only remains now to enforce it—a matter about which there is no ground to feel the slightest doubt. The whole country is looking to St. Louis to give the public a wholesome, interesting, amusing and educational exposition, and in such an exposition there is no room for charlatanry.

The fact that the *Public Health Reports* have announced another death from plague in San Francisco (July 13) will probably serve to keep alive the somewhat languid interest which the medical world feels in that subject. We have become so used to

hearing that there is no plague in California that a well-authenticated case now and then will not disturb our equanimity.

Surgeon-General Hamilton, of the British Army, made a sensational charge last week before the British Medical Association to the effect that General Buller in the Boer war twenty years ago used army medical wagons, with the red cross thereon, to carry ammunition to the front. He added that the British could not complain of the Boers for doing the same things in the recent war. There is such a thing as honor in war, and the sanctity that attaches to the red cross should never be violated.

Current Comment.

LONG-DISTANCE CURSING.

A physician in Missouri has, according to the daily press, been fined \$5 and costs for swearing over the telephone at an operator. The judge who imposed the fine held that "crimes committed at long distance, such as the hurling of oaths at a person in another jurisdiction, by means of the telephone" were amenable to the laws in the jurisdiction in which the offense was committed. The judge also held that profanity had no sufficient provocation and was never excusable by the plea of self-defense. Probably the learned judge had never had any personal experience with the average telephone switch-board "operator."

—*The New York Medical Journal.*

THE PASSING OF THE BEARD.

A few years ago our gilded youth were bearded like the pard, or as nearly so as nature permitted: now what Parolles calls "valour's excrement" is practically a forbidden thing to "smart" young men, even as a decent covering for a feeble chin. Hygiene is equally ruthless. A German surgeon some time ago vehemently denounced the beard as a fertile source of infection during operations. Quite recently it has been stated, with what authority we are unable to say, that the German Emperor has decreed that those among his lieges who practise medicine or surgery shall cut off their beards. So sweeping an order sounds rather improbable even as coming from a potentate whose motto is *Summa lex regis voluntas*. But the German Emperor, like the prophet Habakkuk, is capable of anything when he is bitten by an idea. And such an order would be in accord with the teachings of hygienic science, for your Teutonic professor is often like Bottom in his "translated" condition—marvelously hairy about the face. In another hemisphere it is announced that the Milk Commission of New York has ordered that hereafter smoothfaced men only shall be employed for milking cows and delivering milk to the various dépôts throughout the state. The reason given is that the dust from the stable is liable to infect the beard, which will collect and hold microbes that may readily impregnate the milk. Unless the beard can retrieve its sanitary character, we fear it is destined to become as rare as an appendix already is within the sphere of influence of certain transatlantic surgeons.

—*The British Medical Journal.*

Correspondence.

PERVIOUS URACHUS.

By W. S. YATES, M. D., of Junction City, Kansas.

To the Editor of the Philadelphia Medical Journal:

Dr. Griffith's case of pervious urachus induces me to report a case occurring in my practice. L. at birth was a lusty boy of German parentage. At the time of birth there was nothing unusual in the appearance of the cord, but after the cord had dropped off the father reported to me that the babe was bleeding at the navel. On examination I found what appeared to be an umbilical excrescence protruding about one-half inch and blood oozing from the surface. Examination showed this protrusion to be a hernia of the urachus; in the center of the protrusion was a slight depression which freely admitted a small probe. The odor of urine was always on the dressings and the probe would easily pass into the bladder. When the child was 3 weeks old I closed the opening with a purse-string suture, passed about the urachus subcutaneously, and removed the protruding portion. The wound healed kindly and never gave any further trouble.

THE ENUMERATION OF SPERMATOOA.

By A. L. BENEDICT, A. M., M. D., of Buffalo, N. Y.

To the Editor of the Philadelphia Medical Journal:

Recently there was referred to me by a medical acquaintance a specimen of semen, voided a little while before and amounting to six cubic centimeters. Many living spermatozoa were seen and, indeed, they were in active motion for 6 or 7 hours afterward, though not kept above the ordinary room temperature. As the statements in text-books are rather vague as to the number of spermatozoa, it occurred to me that it might be of interest to put on record an enumeration, made with the Zeiss hemocytometer. A number of previous experiments had demonstrated that ordinary semen should be diluted about twice, to facilitate counting. I used both the Toisson solution and a half per cent. alcohol solution of dimethyl-amido-azo-benzol, the latter staining smears so that heads appear bluish. In the chamber, neither of these diluents produced an appreciable stain and I had previously used potassium dichromate solution without securing a stain. However, by constantly adjusting the focus, the high refraction of the heads and the tails enabled the counting to be done without much trouble. The dilution is best effected by shaking in a graduated tube, using not less than 1 cc. of semen to avoid errors in measuring. From one to 21 spermatozoa heads were found in a square, the average being 7.21, corresponding to 57,680 spermatozoa per cubic millimeter. Thus, the entire emission contained over 346,000,000. Average emission, however, contains only from two to four cubic centimeters. It occurs to me that some one may find it of interest to investigate this matter at great length. As it has no direct bearing on my line of practice, it would scarcely be worth while for me to continue the investigation.

Reviews.

Dynamic Aspects of Nutrition and Heredity. By Frank Horridge. New York. William Wood & Company. MDCCCCH.

This little work bravely attempts to display the dynamic aspects of nutrition and heredity. It is, in the main, a brief physiological description of the active forces of living organisms and of the spinal cord and the functions of the cerebellum. About thirty pages of the 175 of which it is made up are

devoted to the subject of heredity itself. The author's style is good; his command of language excellent, but his interpretation of many facts is not of the character to lead us to believe his judgment sound. For instance, he says, "Indeed, to take a striking instance, it would probably have to be acknowledged, in default of any other equally credible explanation, that the immunity conferred by vaccination is, in reality, merely the result of a dynamic impression produced upon the nervous system." We should scarcely expect to find such a statement as this in a work written in this year of grace, 1902, and there are others which are like unto it. The book is readable and interesting and, if the writer arouses in us frequent desire to criticise, it is perhaps a tribute to him that he has handled a vexed subject with acumen. But we cannot put down the book without expressing the sentiment that mere volubility will not explain mooted questions, and we find numerous instances in which so-called explanations are given which are quite as difficult to understand as the original problem. [T. L. C.]

Hernia, Its Etiology, Symptoms and Treatment. By W. McAdam Eccles, M. D., (London), F. R. C. S., Senior Assistant Surgeon, West London Hospital. Second Edition, Cloth, 8vo., pp. 233. New York, Willam Wood & Co. 1902.

This is an exceedingly practical and well written treatise on a most important surgical topic. The author is systematic and thorough; and his book is comprehensive without being filled with a multitude of unimportant details. His remarks on anatomy, symptoms, diagnosis and treatment by truss and operation are evidently those of a man who knows the subject and has the ability to teach what he knows. The tables of differential diagnosis are of much convenience and will aid the practitioner, who consults them in obscure cases. The illustrations are very numerous and very beautiful. It is not surprising that the book has reached a second edition within less than two years. It is a model for monographs meant for ready reference. Mr. Eccles should feel proud in the consciousness of having produced a perfect book of its kind. It is a pleasure to read it, a pleasure to review it and a piece of good fortune to have it in one's possession. [J. B. R.]

Practical Dietetics. With Special Reference to Diet in Disease. By W. Gilman Thompson, M. D., Professor of Medicine in the Cornell University Medical College in New York City, Visiting Physician to the Presbyterian and Bellevue Hospitals. Second edition, enlarged and thoroughly revised. New York, D. Appleton and Company, 1902.

The first edition of **Thompson's Dietetics** was received with great satisfaction by the profession as elaborating in a thorough and practical manner the importance of diet in disease. This second edition, which has been revised and enlarged, still further assures the book a place at the physician's right hand. We have examined the volume carefully and not in any feature with disappointment. The mass of facts which the author has so carefully collected has been fittingly assimilated in the various chapters with the result that he has succeeded in producing an admirably molded treatise. The subject of diet in disease is assuming its once forgotten place. Part IV, dealing with age and food and the especial foods required to meet indications, is admirably presented. Part VII, which takes up the administration of food for the sick, is worthy of careful study. That portion of this section devoted to nutrient enemata presents the subject of rectal feeding in a more acceptable as well as concise form than any similar work with which we are familiar. Perhaps the most satisfactory of the chapters is that devoted to stimulants, beverages and condiments. In this the author has reconciled differing authorities and presented his own ideas clearly and forcibly. The appendix contains receipts for invalid's food and beverages suitable for fevers and convalescence from acute

illness. This portion of the work is invaluable to the general practitioner. Dr. Thompson has included in his text a large number of tables comprising the results of food studies as well as the analyses of many articles of food. We would especially commend the chapters on animal and vegetable food. It is not difficult to understand the popularity of Thompson's Dietetics. The work is admirable in every essential feature. [T. L. C.]

Philadelphia Hospital Reports. Volume IV. 1900. Edited by Roland G. Curtin, M. D., President of the Medical Board, and Daniel E. Hughes, M. D., Chief Resident Physician. Philadelphia. Printed by Maurice H. Power. 1901.

The wealth of clinical material which the Philadelphia Hospital receives has made it one of the great institutions of the world. It has long been a source of regret that annual reports have not been published under the auspices of the Bureau of Charities of the city of Philadelphia. The present book is but the fourth volume which has appeared officially from the institution. To be sure, a great number of the interesting case-reports are contributed from time to time to the medical journals, but undoubtedly the results of much interesting medical and surgical work have been lost on account of the lack of provision for a suitable publication. The present volume is a valuable one and contains contributions from a number of members of the hospital staff. The subjects are varied and presented in a thoroughly satisfactory manner. Among the contributors are Dr. R. G. Curtin, Dr. James Tyson, Dr. D. E. Hughes, Dr. J. H. Lloyd, Dr. J. H. Musser, Dr. F. X. Dercum, Dr. G. E. de Schweinitz, Dr. Orville Horwitz, Dr. Charles K. Mills, Dr. David Riesman, Dr. H. F. Hansell, Dr. A. A. Eshner and a number of others. The volume contains a list of members of the medical board of the Hospital past and present as far as known. This feature adds to the value of the book from the historical side. We congratulate Dr. R. G. Curtin and Dr. D. E. Hughes, the editors, upon their successful management of these Reports and we indulge in the hope that some suitable provision may be made for the continuation of such a publication. [T. L. C.]

Typhoid Fever in China. French troops were quartered in Pao-Ting-Fu from October, 1900, to August, 1901. Out of 572 cases of illness there, Sabatier reports 60 cases of typhoid fever with 11 deaths, while but 26 deaths occurred from all causes together. Typhoid is endemic in China among natives and Europeans. Most of these cases broke out during the winter months. The Chinese live in filth, without public or private hygiene, with contaminated houses, soil, air and water; and the constant communication by peddlers, etc., between towns causes the spread of all contagions. The epidemic appeared in a room above a mass of refuse. As soon as this was evacuated, the epidemic began to disappear. The cases reported were typical in onset, symptoms and course, and typical lesions were observed post mortem (*Archives de Médecine et de Pharmacie Militaires*, June, 1902). [M. O.]

Vulvar Lymphangiectasia.—In a long article in the *Journal des Sciences Médicales de Lille*, May 10 and 17, 1902, Duret discusses lymphangiectasia of the vulva, describing his case, in a young girl of 17. She had phlegmonous edema of the vulva, for which incisions were made. Several dermal lymphatic varicosities developed with cachexia, infection and lymphorrhagia. Yet recovery followed slowly. Duret concludes that lymphangiectasia may exist, resembling that found in occidental countries, yet without the presence of filaria. It is the result of some obstruction to the lymph circulation, such as obliterating adenolymphangitis, often due to streptococci. Lymph glands and vessels may become dilated, such varicosities being common on the lower extremities and external genitalia. They rupture spontaneously, and lymphorrhagia follows, causing cachexia and anemia. When this affects the vulva, clear vesicles and papilliform vegetations form, accompanied by profound infection. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA

Pennsylvania State Board of Medical Examiners.—Out of 402 candidates who took the recent examinations for a license to practise medicine in the State of Pennsylvania, 352 passed. There were but 43 failures as compared with 88 last year. Six men failed to take the examination, and one man was expelled for cheating. There were several women physicians among those who passed.

Medico-Chirurgical Hospital.—The new receiving ward, which has just been completed, was opened for patients, July 31. It contains 14 beds and is thoroughly well equipped. The equipment, the cost of which was approximately \$3000, was the gift of Mr. James Bromley.

Smallpox in Pennsylvania.—While smallpox is steadily decreasing in Philadelphia, the vital statistics show that the disease has spread all over Eastern Pennsylvania. It is not believed that the outbreak will assume large proportions, yet health authorities admit that the disease is causing them much trouble. Since May 1, smallpox has appeared in 34 counties of Pennsylvania.

Immigration into Philadelphia.—During the year ending June 30, 17,175 immigrants were admitted at the port of Philadelphia, 11,360 of them being males. But 840 were above the age of 45. The Irish lead among the nationalities, 2,446 having come from Ireland. Germany sent 1339, Italy 979 and France 70. The remainder were scattered among the smaller nations of Europe and South America, while 2 came from Japan.

The Health of Philadelphia.—The report for the week ending August 2 shows a marked decrease in all contagious diseases with a decrease, also, in the total number of deaths. But 7 cases of smallpox, with no deaths, were reported.

Death of Dr. Davis.—Dr. J. Aubrey Davis, who was graduated from the University of Pennsylvania in 1887, died at the University Hospital, July 31, from chronic Bright's disease complicated by meningitis, aged 37 years. He was quiz master at the University of Pennsylvania for a number of years, and later became medical inspector of the city of Philadelphia, which position he held at the time of his death.

NEW ENGLAND.

Yale Medical School's New Clinic.—The new clinic building of the Yale Medical School, New Haven, Conn., which has just been completed at a cost of \$96,000, is the gift of Mrs. T. G. Bennett, whose husband for a number of years was a member of the Yale corporation. She gave the clinic in memory of her mother, Mrs. Winchester, who, 10 years ago, gave to Yale the electrical laboratory known as Winchester Hall. It is expected to erect 3 other buildings to complete the new medical school; one for anatomy and pathology to cost \$132,000; another for offices and lecture rooms to cost \$56,000, and the third for chemistry and physiology to cost \$79,000.

Smallpox in New England.—A slight recrudescence of smallpox has been noted throughout New England since the end of June. The Connecticut State Board of Health met July 25 and adopted a general order for the compulsory vaccination of every child not recently vaccinated. Every precaution is to be taken in Connecticut to prevent an epidemic of smallpox this winter. During the week ending August 2 but 3 new cases of smallpox were reported in the city of Boston, without any deaths. Cases have lately been reported in North Grosvenordale, Conn., Pawtucket, R. I., Tilton and Nashua, N. H., and Salem, Somerville, Medford and Cambridge, Mass.

Cholera in Maine.—The cause of death, in the case of a prominent merchant of Bangor who died August 3, at the age of 84, is given by Dr. Briggs, the attending physician, as Asiatic cholera, though not of a malignant type.—*Boston Herald*.

Dr. Richardson Injured.—Dr. Maurice H. Richardson, the well-known Boston surgeon, broke his left ankle, July 30, in a runaway accident at New Bedford, Mass.

Brookline Hospital.—Four new buildings have just been completed in Brookline, Mass., for the treatment of contagious diseases, at a cost of \$90,000, excluding land and

equipment. Two of these buildings, very much alike, are for diphtheria and scarlet fever patients. Between them is a building serving as administration building and nurses' home. The doors of entrance for nurses from diphtheria and scarlet fever patients are separated by partition walls. The fourth building, behind the administration building, contains the laundry and disinfecting plants. As these new wards provide 50 additional beds, the entire hospital will now accommodate 100 patients.

A Supposed Case of Leprosy.—It is believed that a case of leprosy has been found in Providence, R. I., the patient being a gentleman who recently returned from South America. At the Rhode Island Hospital, where he went for treatment, the purplish condition of his skin made the physicians suspicious of leprosy. Before any official action was taken for removing him to the contagious hospital, he left the city and is now said to be with his family in New Bedford, Mass. He lived in South America for 4 years, returning to Providence in 1897.

Burrage Hospital, Boston Harbor.—A new hospital for crippled children, handsomely built and well equipped, on Bumkin's Island, Boston Harbor, has just been completed by Mr. A. C. Burrage. In order that the children may suffer no inconvenience in going from floor to floor, the hospital has an inclined runway in place of stairs or an elevator. Among the other improvements found in this thoroughly up-to-date and well-equipped hospital are high bath-tubs, so that the nurse who bathes the crippled child does not have to stoop over.

The Oldest Medical Society in the United States.—The oldest medical society in this country, and still in a healthy state of existence, is the Litchfield County Medical Society, of Connecticut, which was founded in 1765.

SOUTHERN STATES.

Typhoid Fever Investigations.—In a recent inspection of Camp Thomas, Chickamauga, the question arose as to whether the germs of typhoid fever, which caused the epidemic there during the Spanish-American War, could have been responsible for the recent outbreak of the disease at Chickamauga. Contract Surgeon James Carroll, U. S. A., has dug up specimens of earth from the disused sinks and drains of the camp of 4 years ago, in order to make bacteriological tests. As such experiments will take at least 6 weeks, the solution of the question must be postponed. Surgeon-General Forwood is now preparing plans for the new hospital, with a capacity of 48 beds, soon to be erected at Camp Thomas.

Smallpox in Virginia.—Surgeon-General Rixey, U. S. N., has recommended, in view of the epidemic of smallpox at Norfolk and Portsmouth, that all persons living within the limits of the Navy Yards, not showing satisfactory evidence of recent successful vaccination, be vaccinated, and that all civil employes and people whose business takes them within the yard limits be required to present satisfactory certificates of recent vaccination. The Health Board of Norfolk has asked for an appropriation of \$5000 for the purpose of compulsory vaccination.

The Death of Dr. Grissom.—Dr. Eugene Grissom, a graduate of the University of Pennsylvania, committed suicide in Washington, D. C., July 27. Soon after graduation he began to study nervous diseases. A native of Granville, N. C., he was appointed superintendent of the North Carolina Insane Asylum at Raleigh, which position he held 21 years. His lecture upon the "Borderland of Insanity" and his work on "True and False Experts" are well known. In 1890 he moved to Denver. Later he contracted a drug habit and, after attempting suicide, spent 5 years in the Pueblo Insane Asylum. He was 71 years old.

MISCELLANY.

Sanitation in Cuba.—The U. S. Minister reports that the sanitation of Havana's streets compares favorably with some American cities. Dr. Carlos Finlay has been appointed chief of the sanitary department of the city of Havana, in Major Gorgas' place, with Dr. E. Barnet as his assistant. The Cuban Quarantine Board is unchanged, and the National Board of Health, though projected, has not yet been constituted. At a recent meeting of the cabinet it was declared that on and after August 1, 1902, the Government of Cuba would cease to make appropria-

tions for the disinfection and cleaning of streets, in the cities and towns of the island. For the 3 years past this expense has been paid by the military government. The disinfection material now held by the Government will be distributed among the various municipalities, by which the Government will be reimbursed.

Cholera in the Philippines.—While cholera is decreasing in Manila, the provinces still show a number of cases, 605, with 525 deaths, having occurred August 2. Since the outbreak of the epidemic, up to August 3, 21,408 cases of cholera had occurred, with 16,105 deaths. As many cases were not reported, the total number is now estimated at 28,000. Among those who died in Manila were 48 Americans and 18 Europeans.

Yellow Fever in Cuba.—A case of yellow fever appeared at Gibara, July 9, death following the next day. Another case is reported, August 2, at Elbera. The disease is also raging in Mexico, and 2 cases were reported in Costa Rica, under date of July 17.

Cholera in Manchuria.—Official reports show that cholera is spreading with terrible rapidity throughout Manchuria. The epidemic now claims hundreds of victims daily, mostly Chinese, but Europeans are also dying of the disease. At Inku, between June 6 and July 18, there were 834 cases and 650 deaths, and at Harbin, since the recent outbreak, 1463 cases and 939 deaths have been reported. At Mukden there were 49 deaths out of 76 cases in 8 days, and at Port Arthur, 67 deaths out of 109 cases in 18 days. At Kirtin there have been about 50 deaths daily, and Chacodtsy, on the Yalu river, reports 30 deaths daily.

The Cause of Yellow Fever.—A preliminary report has been made by Dr. Parker, of the U. S. P. H. and M.-H. S., who, with 2 assistants, has been investigating the cause of yellow fever at Vera Cruz, Mexico. As yet no definite results have been reached, though the progress of the investigation up to date shows the investigators to be on the track of what is considered the cause of yellow fever. Dr. Parker's assistants are Drs. Pothier and Beyer, of New Orleans. The Cuban cabinet has sent Dr. John Guiteras to Vera Cruz to report upon the results of the U. S. Commission's investigations.

Cholera in Egypt.—The epidemic of cholera continues to increase. In Cairo, in 2 days of last week, there were 76 new cases of cholera with 73 deaths. At Moucha, on the same 2 days, there were 32 new cases and 35 deaths. The report dated July 30 states that cholera has appeared at Zizeh.

Obituary.—Dr. Abner M. Miller, at Bird-in-Hand, Pa., July 29, aged 68 years.—Dr. George L. Ames, at Accomas, Va., July 28.—Dr. W. W. Douglass, at Warsaw, Va., July 28.—Dr. E. M. Eagle, at Bowling Green, Ky., July 29.—Dr. P. O. Hooper, at Sayre, Okla., July 29, aged 69 years.—Dr. John H. Richardson, at Brattleboro, Vt., July 21, aged 74 years.—Dr. John M. Gary, at Groveton, Texas, July 17.—Dr. W. H. Drake, at Bandana, Ky., July 22.—Dr. John C. Farmer, at Pinneville, Mo., July 6, aged 63 years.—Dr. Julian Bates, at St. Louis, Mo., July 20, aged 70 years.—Dr. Charles L. Carter, at Warrensburg, Mo., July 21, aged 70 years.—Dr. Hamilcar Greenland, at Okarchree, Okla., July 18.—Dr. Otto R. Grube, at New Braunfels, Texas, July 18.

CONTINENTAL EUROPE.

Professor Virchow Again Injured.—Reports from Berlin state that Professor Rudolf Virchow, who celebrated his 80th birthday last October, recently had another fall and is seriously ill in consequence. It will be remembered that Dr. Virchow fractured his thigh by falling from a street car last January.

Bubonic Plague in Russia.—A report from Odessa, August 1, states that 2 new cases of bubonic plague have occurred, making in all 7, with one death. Rigorous sanitary precautions are being taken to prevent the spread of the disease.

Plague in Genoa.—The steamship *Duca de Galliera*, from Buenos Ayres, reached Genoa June 23, with 700 passengers, 2 of whom were suffering from bubonic plague. The steamer was quarantined at Asinara with all her passengers and crew.

A New Treatment for Furunculosis and Carbuncle.—At the last meeting of the French Academy of Medicine, Dr. Doyen described a new treatment, consisting of injections of an albuminous liquid, before the formation of a core, effecting the cure of boils, carbuncles or other staphylococcus infections within 24 hours. If the core has already formed, recovery follows in 3 days. Large carbuncles may be cured in this manner without incision or cauterization.

University Notes.—**Berlin:** Dr. Schweninger, well known on account of having attended the late Prince Bismarck, for several years past professor of dermatology at the University of Berlin, has lately been removed from that position, having been granted the title of "general professor of the art and practice of healing."—Dr. O. Vogt has been appointed director of the Physiological Institute of the University. He will also be in charge of the new Neurological Laboratory.—**Breslau:** Dr. Gadamer, of Marburg, has accepted the position of director of the Pharmaceutical Institute, to replace Dr. Poleck, who is to be retired October 1.—**Dresden:** Dr. Eduard Henoch, formerly professor of pediatrics at the University of Berlin, celebrated his 60th. anniversary as M. D. July 16.—July 22, Dr. Langerhans celebrated his 60th. anniversary as a physician.—**Freiburg:** Dr. Alfred Hegar, professor of gynecology, celebrated his 50th. anniversary as M. D., July 16.—Dr. Hermann Pfister has been appointed professor of psychiatry.—**Granada:** Dr. J. Pareja y Garrido has been appointed professor of surgery.—**Graz:** Professor Rollet has been chosen director of the university for the coming year.—**Innsbruck:** Dr. Gustav Pommer, professor of pathology, has been elected director of the University, and Dr. Löwit has been appointed dean of the medical faculty for the coming year.—**Madrid:** Dr. S. R. Recaséns Gerol has been appointed professor of obstetrics and gynecology.—**Munich:** Dr. Max Gruber, professor of hygiene at the University of Vienna has been appointed to a similar position at Munich, replacing the late Dr. Buchner, who succeeded Pettenkofer.—In the place of Dr. von Kupffer, retired, Dr. Johannes Rückert, professor of anatomy, has been appointed first-conservator of the Bavarian Anatomical Institute, and Dr. Siegfried Mollier has been appointed professor of anatomy, histology and embryology, and second conservator of the Anatomical Institute.—**Paris:** Contrary to expectations, Dr. Gaucher, and not Dr. Hallopeau, as announced last week, has been chosen professor of dermatology to succeed Professor Fournier, who has just been retired.—Dr. Bouvier, professor of anatomy and zoology, has recently been elected a member of the Paris Academy of Sciences.—**Prague:** Professor Johannes Gad has been elected dean of the medical faculty of the German University, and Professor Horbaczewski has been appointed dean of the medical faculty in the Bohemian University, for the coming year.—**Vienna:** Dr. Alexander Fränkel has recently been appointed professor of surgery, Dr. Salzmann professor of ophthalmology, Dr. Hermann Schlesinger professor of internal medicine and Dr. Richard Braun von Fernwald, professor of gynecology.

Death of Professor Gerhardt.—Dr. C. Gerhardt, professor of internal medicine and director of the second medical clinic in the University of Berlin, privy councillor and member of many important societies, died at his residence, Schloss Gamburg, Baden, Germany, July 21, in his 70th year. While a writer upon most of the subjects in the field of medicine, his work upon children's diseases and pulmonary diseases is especially well known. Formerly professor at Jena and Würzburg, he has held the position at Berlin for a number of years.

Death of Dr. Porro.—Dr. E. Porro, professor of obstetrics in the Milan Medical School, died in Milan, Italy, July 18, in his 60th year. Though born at Padua, he was professor of obstetrics at Pavia until 1822, when he moved to Milan. He is well known on both continents on account of his modification of the operation of Cesarean section, which bears his name. He was also a Senator.

Obituary.—Dr. M. Nieto Serrano, Marquis of Guadalerzas, director of the *Signo Medico*, the greatest physician of the 19th. century in Spain, died in Madrid, July 3, aged 89 years. After having been a military surgeon for a number of years, he became a member of the Spanish Academy of Medicine in 1839. In 1868 he was president of the First Spanish Medical Congress. He was the author of a number of books and has translated many foreign works.—The death is also announced, at Copenhagen, of Dr. Karl M. Reiss, professor of pathology, July 18, aged 73 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

July 19, 1902.

1. A Clinical Lecture on Some Anomalous Cases of Tabes Dorsalis. JAMES TALYOR.
2. Acute Nonsuppurative Perinephritis. DAVID NEWMAN.
3. The Diagnosis of Diseases of the Sigmoid Flexure and Rectum, with Special Reference to the Proctoscope. F. SWINFORD EDWARDS.
4. Clinical Observations on the Action of Some Suprarenal Preparations. STEPHEN G. LONGWORTH.
5. The Functions of the Epiglottis. KNOWLES RENSHAW.
6. An Analysis of Human Chyle. E. WACE CARLIER.
7. Contagious Growths in Dogs. C. POWELL WHITE.
8. An Unusually Large Pyosalpinx. MAY THORNE.
9. Squamous Epithelioma of the Larynx in a Man, Aged 24; Thyrotomy; Excision of the Larynx. G. VICTOR MILLER.
10. Four Cases of Mastoid Abscess. RICHARD LAKE.

1.—Taylor divides anomalous cases of tabes dorsalis into several groups. (1) Those in which there are ocular symptoms, or symptoms attributable to disease of the optic nerve, commonly either paralysis of some ocular muscles, usually the levator palpebrarum, or some optic atrophy. Unilateral ptosis is rare, but slight double ptosis is not uncommon in cases without any other muscular involvement. Sometimes paralysis of either one or both sixth nerves, most frequently of one, is seen. In other cases defect in vision is marked, the result of optic atrophy. The Argyll-Robertson pupil may be the only sign of definite importance. Frequently in the above cases the other symptoms of tabes are either not present or mild in form. The second class are those characterized by gastric or other crises, joint troubles or trophic disturbances. In many of these cases the ordinary symptoms of tabes are present. In others the larynx is affected. These crises are manifested as choking attacks, extreme inspiratory spasm, with cyanosis and depression. In the joint deformities, the so-called Charcot's joints, the most striking thing about them is the extreme deformity, arising without any pain. Perforating ulcer occurs, and in these cases severe ataxia is usually absent. The author reports 10 case-histories. [H. U. N.]

2.—Newman reports a case of acute nonsuppurative perinephritis following an acute pleurisy lasting over 4 weeks. After the subsidence of the pleuritis the patient experienced severe pain in the right lumbar region; there was no fever nor symptoms of renal disease, but a large, hard mass could be palpated between the costal margin and the iliac crest. An exploratory incision was made and the kidney found embedded in a huge mass of inflammatory material; there was no pus. The patient recovered, but a hard mass can still be felt in the right renal region. [F. T. S.]

4.—Longworth gives the results of his clinical observations on the action of some suprarenal preparations. Injected intravenously, the most powerful effect is produced on the muscular system, especially the muscular walls of the heart and bloodvessels. Hence Schäfer recommended it in sudden cases of cardiac failure. Longworth reports 2 cases in which this treatment was tried with striking but temporary results, owing to their hopeless nature from the outset. Subcutaneous injections of adrenalin, 1/1000 to 1/500 gr., have been recommended in operations about the eye in order to control hemorrhages. Its administration by the mouth has not been followed by such constant results. Longworth tried it in 6 cases, in 2 of which a very decided rise in bloodpressure followed. In one the action was slight, and in the remaining 3 without appreciable effect. In anemia and certain forms of mental disease, mostly of the maniacal type, good results were obtained from suprarenal extract. It has been recommended in epilepsy, but in one of the author's cases, that of an epileptic imbecile, the fits increased in severity and frequency during the administration of the drug. Suprarenal extract has also been tried to advantage in Addison's disease: also in Graves's disease. [H. U. N.]

5.—Renshaw, in his paper on the functions of the epi-

glottis, gives the following reasons that the old theory that the epiglottis acts as a lid to the glottis is erroneous. (1) The muscles attached to the epiglottis are very weak and do not seem capable of bending the cartilage transversely, as would be necessary for them to do in order to depress it over the larynx. (2) Persons in whom the epiglottis has been removed have little or no difficulty in swallowing solids and liquids. (3) The epiglottis is frequently irregular in shape and so folded on itself that it could only with great difficulty be folded far backwards, and would then be an inefficient lid to the larynx. (5) In a case of corrosive acid poisoning the only part of the epiglottis found to be eroded was the laryngeal surface of the petiolulus, a position which should have been completely protected by a depressed epiglottis. Renshaw concludes that the only function performed by the epiglottis during deglutition is to act as a slight lateral protection to the glottis. The main function is to prevent the secretions of the upper air passages from entering the larynx when in a state of rest. The influence of the epiglottis on phonation is at present undetermined and uncertain. [H. U. N.]

6.—Carlier was enabled, by means of an accidental wound of the thoracic duct near its entrance into the veins, in a girl, 10 years of age, to collect and make an analysis of human chyle. The chyle was collected through a large tube inserted into the wound with its end as near the puncture of the duct as possible. At the first attempt only 5.5 cc. were obtained, at a second, however, 17.5 cc. were collected. It was found to have a specific gravity of 1017.1. The result of the analysis follows:

Water	92.519			
Fat, lecithin }	2.820	} total organic solids 7.051	} total solids 7.481	
Cholesterin }				
Proteid	3.840			
Fibrin and other or- }	0.391			
ganic substances }				
Sodium chloride	0.155	} total mineral matter 0.430		
Other salts	0.275			

This differs but little from the table given by Munk and Rosenstein, the only real difference lies in the organic constituents, chiefly sodium chloride. [H. U. N.]

7.—White describes vaginal and mammary growths in dogs which histologically are identical with lymphosarcoma, but differ in that (1) they are highly contagious, (2) they show a slight degree of malignancy, little infiltration of surrounding parts, little tendency to metastasis and ulceration, (3) the growth is slow. These growths cannot be transferred to any animals except dogs. He cites several cases. [H. U. N.]

8.—Thorne records a case of pyosalpinx of unusual size, occurring in a woman, 24½ years of age. On entering a trocar and cannula a thin, nonoffensive pus was found, 35 ounces being caught and about 10 ounces escaping. The symptoms had at no time been commensurate with the size of the pelvic tumor. [W. A. N. D.]

9.—Miller reports a successful laryngectomy for carcinoma of the larynx in a man, aged 24 years. Thyrotomy with partial removal of the growth had been performed 3 times before the radical operation. After the laryngectomy the patient could swallow without difficulty and spoke distinctly with a whispering voice. [F. T. S.]

10.—Lake reports 4 cases of mastoid abscess, all of which followed influenza; in 2 there was no evidence of middle ear inflammation. All recovered after operation. [F. T. S.]

LANCET.

July 19, 1902.

Two Lectures on Injuries of Nerves.

ANTHONY A. BOWLBY.

Five Clinical Lectures on the Causation and Prevention of Phthisis. BYROM BRAMWELL.

Some Rare Cases of Sarcoma of the Thyroid.

P. L. DANIEL.

On the Acetone Series of Products of Connection with Diabetic Coma. F. W. PAVY.

The Treatment of Intraperitoneal Abscess of the Appendix. F. C. WALLIS.

Intussusception of a Diverticulum with a Secondary Ileocolic Intussusception. FRED. T. TRAVERS.

- 7. A Case of Vertical or Complex Hermaphroditism with Pyometra and Pyosalpinx; Removal of the Pyosalpinx. E. PERCY PATON.
- 8. Six Cases of Meningitis in One House, with Two Deaths. EDWARD H. SWEET.
- 9. A Case of Fracture of the Spine; Laminectomy; Recovery. R. T. BOWDEN.
- 10. A Case of Rheumatic Hyperpyrexia Followed by Symptoms Resembling those of Disseminated Sclerosis. WILLIAM ALLEN and JAMES W. RUSSELL.

1.—Abstract will appear when concluded.

3.—Daniel discusses 4 cases of sarcoma of the thyroid. Extirpation was possible in only one of these cases. The ages of the patients varied from 57 to 69 years. In 3 cases the sarcoma was of round or medium cells; in the fourth the growth was giant-celled. The cases terminated fatally in from 8 to 17 months from the time of the earliest observation of the growth. In each of these cases it is thought that the growth was primarily malignant. The right lobe was the one involved in all. In 3 cases the cervical glands were involved and were palpable; in the fourth case no glands were found. Secondary growths were present in 3; in one the secondary growth involved the dorsal and lumbar vertebræ, both kidneys, both suprarenals, the celiac and cervical lymphatic glands and the stomach; in another the kidneys, the cervical and thoracic glands were involved; in the third case, in which there was a co-existing myxedema, there were present malignant ulcers of the stomach and intestine, malignant infiltration of the pancreas and involvement of the cervical glands. In but one case was there marked deviation of the trachea. Pain was not a permanent symptom in any of the cases. Dysphagia and dyspnea were present in 3 cases. In 2 there was extensive infiltration into the trachea. Complete fixation of the tumor to the deep structures was found in 3. In 2 of the cases the carotids were embedded in the growth. [J. H. G.]

4.—Abstract will appear when concluded.

6.—Travers reports an interesting case of a boy, in whom there existed an intussusception of a Meckel's diverticulum with a secondary ileocolic intussusception. The diverticulum was situated about 18 inches from the cecum. It is supposed that the secondary invagination of the ileum into the colon took place after the boy's admission to the hospital, as at this time there was a marked change in the physical signs. Although the examination of the abdomen pointed to an intussusception as the cause of obstruction, yet there was the absence of the classical symptom of the passage of blood and mucus. The boy was operated upon, the intussusception reduced and recovery followed. [J. H. G.]

8.—Sweet reports 6 cases of meningitis in one house, with 2 deaths. These cases developed within a period of 2 months and they presented many points of difference from text-book descriptions of either cerebrospinal or posterior basic meningitis. The household consisted of the father, who had tuberculous disease of the lungs, mother, a weak woman, her sister and 9 children (8 boys and one girl). The whole family suffered from an attack of influenza in February which was followed by a troublesome cough. The house in which the cases occurred stands on the edge of an extensive common on a sandy loamy soil. The nearest houses are about a quarter of a mile from it. For a long while the drainage of the soil, upon which the house stood, was very poor. The first case occurred in the daughter, aged 6 years, during the latter part of April. Her illness began with a stiff neck and constant headache. When seen by the author the patient was drowsy and complained of a dull pain all over her head, and she was nauseated after every meal. Constipation was present, but the tongue was not coated. Her temperature was 99.2° F. Tuberculous meningitis was suspected on account of the father's condition, who, at the time, was suffering from

tuberculosis of the lungs. The treatment consisted of 3 grains of potassium iodide administered with 5 grains of potassium bromide every 4 hours, and 2 grains of calomel twice a day. At no time during her illness was there any retraction of the head, irritability or photophobia. The tache cérébrale was marked and emaciation progressed rapidly. The pupils reacted slightly to light and were slightly dilated. Retinal hemorrhages were present in both eyes. The patient died on May 12. The youngest boy was next attacked; the early symptoms being constant headache, loss of appetite, restlessness and grinding of the teeth at night. The bowels were constipated and nausea developed which was apparently quite independent of the food taken and always came on suddenly. After an illness of 6 weeks the patient recovered. On May 26 the mother complained of nausea, severe headache, generally occipital, and constipation. Her pulse was irregular and weak. The temperature was 98° F. Calomel, potassium bromide and antipyrine were prescribed. Later she developed stiffness and soreness of the muscles of the neck and head, but there was no retraction. Hyperesthesia or anesthesia of the trunk or of the limbs were not present. She recovered completely. The fifth child, a boy, 2½ years old, was next attacked and his illness terminated fatally. On June 6, the aunt and on the 12th. the father were attacked with symptoms similar to those of the mother and each recovered in about 4 days. [F. J. K.]

9.—Bowden reports a case of fracture of the spine in which Cheyne performed a successful laminectomy. The operation was performed 5 days after the receipt of the injury. At the time of the operation the patient was unable to move the lower extremities, although sensation was not interfered with; there was complete retention of urine and the patient was unable to expel gas or fecal matter from the bowel. Cheyne removed the laminae of the eighth, ninth and tenth dorsal vertebrae and was able to demonstrate pressure on the cord by one of the fractured laminae. Clotted blood was also removed from about the cord. Three weeks after the operation a slight improvement was noticed in the power of movement of the lower extremities. The patient, however, continued to lose flesh and the complete retention of urine and of all bowel contents continued. Three months after the operation the patient began to gain flesh, the bowels to act voluntarily and improvement to take place in the urine. At the end of 6 months the patient could stand and take a few steps with assistance. Not the slightest power of control over the bladder, however, was observed until 9 months after the accident. One year after the accident the patient was in excellent condition, was able to walk a distance of two miles, was gaining steadily in strength, was stouter than he had been for years. The bowels were in good condition and the use of the catheter was only necessary once or twice a day. At the time of operation the knee reflexes were absent and at the end of a year were but slight. [J. H. G.]

10.—Allen and Russell report a case of rheumatic hyperpyrexia which was followed by symptoms resembling those of disseminated sclerosis. The patient, a man, aged 30 years, a butcher by occupation, gave a good personal and family history. An attack of rheumatic fever began on November 14, 1898. During this illness the temperature registered as high as 115° F. and as the mercury in the thermometer rose as high as it could, it appeared probable that the temperature was even higher than indicated by the instrument. During this fever the patient was completely unconscious, the breathing was shallow and irregular. The face was cyanosed and the whole appearance suggested the grave condition. During this illness the temperature on a number of occasions was about 107° F. Cold was applied externally in the form of ice packs, to reduce the temperature. The patient recovered, although the improvement was slow. On May 2, 1900, the following symptoms were present. Motor system.—The patient was able to walk, but with great difficulty; putting one foot before the other

slowly and deliberately and keeping the feet widely apart. Romberg's sign was present. There was no nystagmus and no tremor of the tongue. The motor power in both the upper and lower extremities appeared to be intact. Speech.—There was marked scanning; (the speech was slow, and monotonous). Sensation.—Sensation of touch and pain was normal. Reflexes.—The knee jerks were exaggerated. The plantar reflexes were sluggish and ankle clonus was slightly marked. Muscles.—Wasting was not present, the electrical reaction was, however, somewhat sluggish, both to faradism and galvanism. The patient's mental faculties were unimpaired and the general health and nutrition were excellent. [F. J. K.]

MEDICAL NEWS.

August 2, 1902. (Vol. 81, No. 5.)

1. Carcinoma Limited to the Appendix Vermiformis; Discussion of Its Origin and Its Relation to Appendicitis. RICHARD H. HARTE and ROBERT N. WILLSON.
2. Anuria. Clinical Memoranda in the Observation of a Case. ALEXIS V. MOSCHCOWITZ.
3. Dextrocardia Due to Pulmonary Cirrhosis. With Presentation of Case HENRY LEVIEN.
4. The Modern Treatment of Pterygium. F. B. LORING.
5. Report of a Case of Grave Anemia. J. S. TRIPLETT.

1.—Harte and Willson report a case of the above condition in which only 2 theories remain: (1) That the condition was one of a parasitic infection or (2) due to an inflammatory overgrowth of the epithelial structures accompanied by a perverted metabolism that eventually resulted in both an extension of the growth and a poisoning of the system. [T. M. T.]

2.—Moschcowitz reports quite a number of cases of anuria in which the important points were: (1) History of malaria; (2) increased frequency of micturition; (3) sudden onset of the present illness with very severe pain in the left hypochondriac and left lumbar regions; (4) no history whatsoever pointing to involvement of the right side. It is the writer's opinion that the following conclusions are justifiable from the various parts of the past history and the present physical signs: (1) All those parts of the history which the patient collects under the term of "repeated attacks of malaria" may have been caused by a suppurative process of the left kidney, possibly a calculous pyelonephritis; (2) the sudden onset of the present illness with sudden, sharp and severe pain in the left hypochondriac and left lumbar regions may be interpreted as an obstruction of the ureter by a pre-existing calculus; (3) the physical examination, revealing a large painful and tender mass occupying the region of the left kidney, and approximately normal conditions on the right side, should be interpreted as most probably a calculus, hydronephrosis or pyonephrosis, which by increasing the intrapelvic tension has most probably caused reflexly an inhibition of the secretory function of the right kidney. [T. M. T.]

4.—Loring names the 4 operations necessary in the condition: (1) *Excision* which consists of dissecting the apex of the cornea with a pair of curved scissors or a cataract knife and then, having freed the edge of the conjunctival portion, of excising it at about a line or a line and a half from the limbus, the conjunctiva being then brought together by sutures; (2) *transplanting*, which differs from the operation just described simply in the fact that the freed corneal portion, instead of being excised, was inserted in a wound in the conjunctiva below the cornea where it could not encroach upon it; (3) *ligature*, which consists of strangulation by sutures; (4) *by cautery*, the one the author advocates, as there is no pain at the time of application of the cautery nor after it. It is not followed by inflammatory reaction. There are no sutures to be removed nor a wound of a protracted nature to be healed. The patient loses little or no time from his vocation. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

August 2, 1902.

1. Inflammation within the Female Pelvis and its Treatment. NEIL MACPHATTER.
2. Further Observations regarding the Malarial Origin of Zoster. J. M. WINFIELD.
3. Some of the Therapeutic Uses of the X-Ray. E. D. BONDURANT.
4. A Case of Foreign Body in the Male Urethra. J. EDWARD HERMANN.

1.—After a detailed anatomical description of the contents of the female pelvis, Macphatter states that, while operation or other local trauma may cause inflammation within the female pelvis, gonorrhea is the main cause of disease of the uterine appendages. The localization of the inflammation, with the varied symptoms, course and operative treatment, follows in full, illustrated by diagrams. [M. O.]

2.—Exclusive of 8 cases of herpes zoster previously published by him, Winfield now reports 25 more case-histories, 14 of which patients showed malarial plasmodia in the blood. In all, 18 out of 33 patients, whose blood was examined, had malaria with the herpes zoster. The literature of the subject is fully reviewed. Winfield believes that some infection always causes herpes zoster. Malaria is the cause in about 40% of cases. [M. O.]

3.—Bondurant has used the X-ray successfully in cases of carcinoma, lupus and epithelioma of the face, with the disappearance of all pain and but little scar formation resulting. He advises the continued use of the Röntgen rays in such cases. [M. O.]

4.—Hermann reports a method for removing a hat-pin which had slipped head foremost into the male urethra. He grasped the head of the pin in the perineum, and, pushing the penis downward and backward, shoved the point of the pin out. Then he pulled the pin out until its head reached his opening. He then reversed the direction of the shaft of the pin, and pushed it out through the meatus head first. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

July 31, 1902. (Vol. CXLVII.)

1. Nonoperative Head Injuries; Diagnosis and Treatment. T. J. ROBINSON.
2. Indications for Operation in Head Injuries. EDWIN WELLES DWIGHT.
3. Indication for Operation in Head Injuries. WILLIAM N. BULLARD.
4. Gunshot Wounds of the Head and Cranium. LOUIS LA GARDE.
5. Technique and After-Care of Operations upon the Cranium. CHARLES L. SCUDDER.

1.—Robinson concludes his article by urging the importance of 2 things in the treatment of all nonoperative head cases: (1) Extreme and immediate care in the antiseptic treatment of all wounds and abrasions of the soft parts of whatever degree; (2) extreme care in the feeding and general nursing. By attention to these points can septic and pulmonary complications be best avoided and the patient given his best chance. [T. M. T.]

2.—Dwight believes that, given positive signs of intracranial disturbances following an accident which might well cause such a condition, but without definite signs of fractures, he would explore. In a case in which there is probable evidence of fracture and a probability of interference with the brain, he advises operation. The author has never seen fatal or serious results follow trephining by skillful hands, even when two or three openings in the skull were made, and he has seen many lives saved by exploratory operations in this very class of doubtful head injuries. [T. M. T.]

3.—In Bullard's article the following points are im-

portant: (1) Operate in all cases of compound depressed and compound comminuted fractures of the cranium; it is usually advisable to operate on any compound fracture; (2) simple fracture of the cranium without symptoms does not, as a rule, demand operation; (3) absence of unconsciousness does not contra-indicate operation; the degree of unconsciousness is not in all cases proportionate to the severity of the injury; (4) the duration of unconsciousness is important, and when it lasts more than 24 hours operation should be considered; (5) marked rise of temperature after uncomplicated head injury suggests serious injury to the brain; it is necessarily an indication for operation; (6) severe pain in the head continuing for some time after a head injury, if organic, indicates operation; (7) convulsions, when clonic and diffuse, suggest epilepsy or any other complication; when localized they are of value as indicating the side of the brain on which the lesion producing them is situated; taken in connection with other symptoms their presence usually favors operation; (8) the presence of paralysis of the limbs in adults, if marked, usually indicates immediate operation; (9) the above statements refer to adults only. In children paralyses are more apt to pass away and the indication for operation is not decided. [T. M. T.]

4.—LaGarde says that injury to the head forms one of the most fruitful sources of death, both upon the battlefield and in the field hospital. In the Civil War the fatality among all head wounds that reached the hospitals was 28.93 per cent., while in the Spanish-American War, under similar conditions, 26.09%. This can only be accounted for by the introduction of steel armored projectiles of reduced caliber for the military rifle which has modified the subject of gunshot wounds in nearly all the tissues, the head included. He also states that gunshot fractures about the base and those running deeply through the brain from base to vertex were uniformly fatal. It is recommended to explore early and freely all cases of fracture of the skull by gunshot. The aim should be to relieve pressure and to rid the wound of all dirt and loose pieces of bone as soon as possible. [T. M. T.]

5.—When hernia cerebri occurs, there is abnormal pressure. The whole mass of the hernia is not ordinarily brain-tissue, but is largely made up of granular tissue. It is a most distressing condition which may complicate septic cases especially. Cleanliness, compresses of alcohol and support to the part are indicated. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 2, 1902.

1. Cryptorchidism, with a Report of Two Cases of Natural Eunuchs. HENRY G. ANTHONY.
2. Evolution of the Pulp. EUGENE S. TALBOT.
3. A Comparative Study of the Attachment of the Teeth. FREDERICK B. NOYES.
4. Acute Gastro-Enteritis or Summer Diarrhea of Infants. MARGARET TAYLOR SHUTT.
5. Milk Idiosyncrasies in Children. LOUIS FISCHER.
6. The Improvement of Breast Milk and the Prolongation of Lactation. THOMAS S. SOUTHWORTH.
7. Infant Feeding. Some of the Difficulties Growing out of the Necessity for Resorting to Artificial Feeding. ALEXANDER McALLISTER.

1.—Anthony reports 2 cases of natural eunuchs and discusses the question of cryptorchidism, referring to the cases in history. In each of the author's cases the patient was an adult without sexual feeling, with a penis the size of a boy of 6 and with no evidence of testicles anywhere. [F. J. K.]

2.—Talbot contributes an article entitled *evolution of the pulp* and reaches the following conclusions: In each order up to the primates occurs a difference in the size of the dental foramina, showing a struggle for existence between the organs. In the evolution of the pulp from the placoid scales, the pulps are often many times larger than the scale. Sauropsidian pulps are generally as large and some-

times larger than the tooth. Shark teeth from their groove type have large pulps. The rooted part of each tooth is greater than the exposed and is hinged. The early teeth are formed in groups in place of sockets. The formation of projections in the grooves of toothed birds and in some mammals show where changes from open sockets to closed foramina of the teeth occur. The variations which reduce the toothless birds, the ornithorhynchus and the baleen whale to the lower dental types indicate that degeneracy in an organ which is the temporary benefit of the type as a whole. The persistency of open pulps at the expense of the tooth as a complete type is an indication in the same direction. The relation between the dermis and the teeth as shown in pangolins, armadillos, hairy men and men with horny teeth, hairless dogs, etc., continues quite high in the scale, and is still to be reckoned with as a factor in pulp evolution. When the dental bloodsupply is cut off and nourishment ceases, from the closing of the foramina, in man and some lower vertebrates, teeth virtually become foreign bodies. Decay is therefore a natural process of excretion. When the teeth become foreign bodies, bloodvessels approach but cannot enter them, hence they are blank walls where circulation ceases. The alveolar processes, therefore, are easily absorbed through metabolic change, causing interstitial gingivitis. Since blood does not reach the enamel and dentine and nutrition is cut off, tooth decay is controlled by the trophic nervous system. The pulp is, hence, such a transitory structure in human evolution and hence one on which nervous and metabolic storm and stress exerts a strong play. [F. J. K.]

3.—Noyes contributes a comparative study of the attachment of the teeth. He discusses the manner of evolution and differentiation of the teeth and their attachment as shown by the works already published in this field. He believes that there is still some work to be done in the study of the development and specialization of the dental tissue, especially in relation to the manner of attachment of the cementum. [F. J. K.]

4.—See Philadelphia Medical Journal, June 21, page 1110.

5.—See Philadelphia Medical Journal, June 21, page 1111.

6.—See Philadelphia Medical Journal, page 1111.

7.—See Philadelphia Medical Journal, page 1111.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

April 3, 1902. (28 Jahrgang, No. 14.)

1. Recollections of Bernhard von Langenbeck.
F. TRENDELENBURG.
2. Recovery From Gunshot Wounds of the Skull.
ERNST von BERGMANN.
3. The Methods of Investigating Appendicitis.
EDMUND ROSE.
4. The Operation for Removing Testicles Lodged in the Inguinal Canal Into the Scrotum. JULIUS WOLFF.
5. The Surgical Treatment of Ascites with Cirrhosis of the Liver. HERMANN KUEMMELL.

1.—Trendelenburg, who for 6 years was von Langenbeck's assistant, relates his recollections of this great surgeon from 1864 to 1874, from his fifty-fourth to his sixty-fourth year. [M. O.]

2.—von Bergmann reports 3 cases of gunshot wounds of the skull, followed by recovery without operation in one case, but after operation in 2 others. All 3 healed rapidly. Unless the bullet lodges near the bones of the skull, von Bergmann advises against operation, simply leaving the bullet alone and keeping the wounds scrupulously clean. [M. O.]

3.—Rose reports in full the case-history of a man of 34 who died after operation for appendicitis, due to a fecal concretion. The autopsy showed general purulent peritonitis. It is important to palpate the abdomen, for even slight pressure will cause pain over an inflamed appendix. Accidents or other violence never causes appendicitis, though it may cause perforation. Recurrent pain, vomiting and slight fever are indications for operation, even before dullness or a tumor is found. A healthy man only dies from appendicitis if operation has been performed too late. [M. O.]

4.—Wolff has successfully transplanted testicles which had remained in the inguinal canal into the scrotum in 5

cases, in boys of 3, 4, 10, 18 and 20 years of age, whose case-histories, with a description of their present condition, years after the operation, follow. He advises operation in all cases, with or without symptoms, and gives his technique: for the transplanted testicle will grow and develop. The testicle should only be extirpated when a malignant growth is present. [M. O.]

5.—Kuemmel reports 7 cases of ascites with hepatic cirrhosis, on whom he performed Talma's operation. Two died of exhaustion soon after operation; 2 died some months after operation, from various causes; while 3 patients recovered from the ascites, though the cirrhosis remained unchanged. [M. O.]

April 10, 1902.

1. The Diagnosis of Pentosuria. M. BIAL.
2. Experiments Concerning Granular Degeneration of the Red Bloodcorpuscles. W. LOEWENTHAL.
3. Observation Concerning Chronic Appendicitis.
R. LENZMANN.
4. Congenital Fissure of the Neck of the Femur.
C. HELBING.
5. Some Remarks Concerning the Treatment of Gastric Ulcer. C. PARISER.

1.—Those who are accustomed to make these tests know that it is difficult to be certain whether pentoses or glycuronic compounds are present in the urine, and at times difficult to tell either substance from glucose. The method used by Bial is to make a mixture of HCl, orcin and ferric chloride, made by adding to 1 or 1½ gm. of orcin, 500 gm. of fuming HCl, and then 25 to 30 drops of 10 per cent. ferric chloride solution. Four or five cc. of this solution are added to 2 or 3 cc. of urine; the test-tube is closed with cotton and heated over the flame until the first bubbles begin to form, when green pigment is deposited almost at once if there is any notable amount of pentoses present. If smaller amounts are present, the pigment forms after 15 or 20 seconds. Normal and diabetic urines do not give this color. The reaction is easier than the ordinary test, and the author claims that it is more delicate and more distinctive. He also claims that it is likewise easy to split up glycuronic compounds in this way and determine their presence. He does not make it definitely clear how one is to determine whether glycuronic compounds or pentoses are present, excepting that apparently the pentose reaction occurs at once after heating, while the glycuronic reaction occurs only after about one minute of heating. [D. L. E.]

2.—The effect of lead in the production of basic degeneration of the red corpuscles is well known. Löwenthal has tried the influence of certain other metals—cerium and tin—that are closely related to lead. He used chloride of tin, injecting a one per cent. solution in gradually increasing doses. Increasing numbers of basic granulations were found. The animal, however, died of fibrinopurulent peritonitis. In a second experiment, a one per cent. solution of cerium sulphate was injected into a guinea-pig and increasing numbers of granules were found; but they subsequently decreased. A stronger solution was then used and granules were again found in considerable numbers. The results in rats were somewhat doubtful; but it seems probable that in guinea-pigs chloride of tin and sulphate of cerium produce almost immediate granulation of the red corpuscles, although the intensity of this granulation varies markedly from time to time. It seems scarcely to be explained by the animal's becoming accustomed to this poisoning. The author also noted that one of the animals in particular was not free from granulations before the injections. In other guinea-pigs he repeatedly found numerous granulated erythrocytes and poikilocytes. Grawitz suggested that the conditions under which the animals had been kept were not hygienic for the creatures; so Löwenthal put them under better circumstances, keeping them in the fresh air, protecting them from wet and cold and feeding them well. He compares the condition in these animals with that in others which had just been purchased in the market. Of eight bought in the market, apparently healthy, only one showed no granules while the other animals, kept under favorable circumstances, showed none—or, at most, very few. These facts are sufficient evidence of the readiness with which morphological

changes in the blood may be produced while the animals apparently remain healthy. [D. L. E.]

3.—Lenzmann reports 2 cases in women, in which the symptoms followed normal pregnancy and labor. Both were very similar. There were pains in the abdomen, chiefly about the umbilicus, at times severe and cramp-like, uninfluenced by diet. The patients were ill-nourished. The sexual organs showed no alterations, the urinary organs were normal and the abdomen appeared normal except in the ileocecal region, in which palpation produced pain radiating toward the umbilicus and stomach, one point in especial being particularly painful. A small mass could be felt in this region, which in its form resembled the appendix; and rolling this point about caused intense pain. Chronic appendicitis was diagnosed in both cases. Operation was carried out, and the symptoms were thereby practically entirely relieved. A chronic hemorrhagic appendicitis was found in one case, and a hemorrhagic and ulcerative appendicitis in the other. It is difficult to explain clearly the peculiar symptoms exhibited by both of these patients. The author offers the following explanation. The appendix gets its nerves from the sympathetic branches of the superior mesenteric plexus. This also supplies the small intestine and has connections with the solar plexus, which supplies the stomach. Chronic appendicitis produces irritation of the nerves of the appendix. This, by reflex action, causes a persistent irritative condition of the abdominal sympathetic, which is associated with the nerves of the appendix; and, as a result, neuralgic pains occur in the region of the stomach and small intestine. Both patients had had extremely severe constipation before the operation, which disappeared after it. This fact is attributed by Lenzmann to the fact that the inflamed appendix had exerted an irritative action upon the splanchnic.

[D. L. E.]

4.—The interest of the case is chiefly exhibited in the title. The diagnosis was made by radiosopic examinations. [D. L. E.]

5.—The treatment recommended by the author is to have the patient take from 15 to 20 gm. of bismuth subnitrate, stirred up in water, on the empty stomach in the morning, and to follow this by a swallow of plain water. He then lies quietly on his back for three-quarters of an hour, when he takes coffee and rolls. Bismuth is expensive, however, and the author has recently replaced it by chalk and talcum, 60 gm. of these 2 being mixed with 10 to 15 gm. of *magnesia usta*, which acts as an antacid and slightly purgative. The amount of magnesia can be increased or decreased as desired. The author has never seen intoxication from extremely large doses of bismuth. The possibility of this is, however, absent from this chalk-talcum-magnesium mixture. Another advantage of the latter is that it does not blacken the stools; and that, consequently, any blood in them can be readily observed. He has also tried silver nitrate in a considerable number of cases, but he finds the other method to be more satisfactory. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

March 11, 1902. (No. 10).

1. The Principles and Dangers in the Treatment of Abortion. H. SELLHEIM.
 2. The Mechanism of Albuminuria Produced by Egg-Albumen. M. ASCOLI.
 3. The Bacillus of Danysz. E. WIENER.
 4. A Renewal of the Discussion of the Bactericidal Action of the Röntgen Rays. H. RIEDER.
 5. The Center of the Reflex Contraction of the Pupil, and the Position and Nature of the Reflex. Immobility of the pupil. K. BAAS.
 6. Voluntary Dislocation of the Arm. J. RIEDINGER.
 7. A Case of Unilateral Absence Almost Complete of the Musculus Cucullaris. O. BENDER.
 8. Are the Angiomata of the Skin, Occurring in Early Life and in Relatively Large Numbers, Available for the Diagnosis of Carcinoma? A. REIZENSTEIN.
 9. Chloroform Narcosis Without Mask by Means of a Tracheal Cannula. TRUMPP.
- 1.—Sellheim reports the case of a woman, 34 years of

age, who aborted in the fourth month. Three days later a physician was called who attempted to clear out the uterine cavity by means of Winter's forceps. He perforated the fundus of the uterus, grasped the transverse colon and drew it as far as the vulva. The patient was immediately brought to the clinic and, in view of the fact that peritonitis threatened, laparotomy was done. There was considerable blood in the uterine cavity and the descending colon and the whole of the sigmoid flexure were torn free from the serous coat and opened. The injured portion of the bowel was resected, the uterus and the adnexa extirpated and the patient made an excellent recovery. Sellheim, in view of this case, discusses various modes of treatment to be employed in inevitable abortion. In the early months the symptoms are hemorrhage and slight pain in the lumbar region. From the third month the pains become more characteristic. Rarely is the ovum ruptured. In these cases the treatment should be expectant unless there is anemia, retention of fragments of the ovum or infection. If, however, the ovum remains in the uterine cavity it must usually be dislodged, preferably with the finger. If this is not possible, the cervix must be tamponed with sterile gauze until the ovum is expelled. Afterward the uterine cavity may be packed. It is not necessary thoroughly to cleanse the uterus with the curette, because small fragments must inevitably remain and usually do no harm unless the finger has entered the uterine cavity when a complete evacuation of the contents must always be practised. In all incomplete abortions the fragment of the ovum must be removed. Forceps should not be employed for this purpose except by men thoroughly skilled in the technique of their use. In case of hemorrhage the uterus should be doused with chlorine water. Of course, if there is any reason to suspect sepsis, the uterus should be emptied as rapidly as possible and thoroughly disinfected, but the use of the curette should be avoided, if possible. All instruments with sharp edges should also be avoided in intra-uterine work, and if the operator is so unfortunate as to perforate the fundus (an accident that has happened very frequently), the patient should be immediately transferred to a clinic and laparotomy performed.

[J. S.]

2.—Ascoli has made some experiments in order to determine whether the subcutaneous introduction of albumin will produce albuminuria. He found that egg albumen, injected in considerable quantities beneath the skin of rabbits or given in large quantities by the mouth, invariably produced albuminuria, and egg albumen could be found in the urine of both animals. Large quantities of egg albumen were also given to men, and it was found that, in all cases in which there was reason to suspect slight injury to the kidney, the albuminuria occurred. When the kidneys were healthy, it did not occur. If small quantities of albumen were injected subcutaneously, they did not produce any effect. He concludes that egg albumen in sufficient quantities acts as a sort of poison upon the renal cells, making them permeable to the albumin in the blood, and that this effect is more pronounced in cases of kidney disease. [J. S.]

3.—Wiener, having received some nonvirulent cultures of the bacillus of Danysz, and failing to render them virulent by ordinary measures, cultivated them in freshly laid eggs according to the method of Hueppe and was able to increase their virulence very considerably. He found that he could accomplish this still more satisfactorily by injecting 8 to 10 drops of a 1% solution of sterile sodium hydrate into the egg before inoculation. After cultivating in fresh eggs, animals died in 4 to 6 weeks, and after cultivating in the alkalized eggs in 8 to 10 weeks. [J. S.]

4.—Rieder has performed a number of experiments with plate cultures of the cholera vibrio, the bacillus prodigiosus and the colon bacillus, in order to determine what effect the Röntgen rays had upon them. The plates were covered with a lead disk in the center of which there was a hole. He found that in practically all cases the colonies which

were exposed to the rays passing through the center hole were killed, whereas the others continued to grow. If the culture medium was exposed to the X-rays and then inoculated, no interference with the growth of the bacteria was noted. The effect appears to have been due exclusively to the X-rays, because cathode rays did not penetrate the glass wall, the fluorescent light was excluded by means of opaque paper, the effect of heat was excluded by shutting off the current after a minute's exposure; the effect of ozone was excluded, because the bacteria not directly exposed were not affected. The effect of electricity was excluded by introducing a metal plate, which was grounded, between the bacteria and the tube. The nutrient media became clearer. Otherwise it did not seem to be altered. The duration of the exposure varied from 20 to 30 minutes. It was observed that, if the period of exposure was too short, the colonies in the exposed part were larger than the other. This was probably due to the fact that they were fewer and therefore had a greater supply of nutrient material. There seems to be no doubt of the biological action of the Röntgen rays. [J. S.]

5.—Baas has made a careful analysis of the literature concerning the reflexes of the pupil, with particular reference to the anatomical situations of the nuclei by which the arc is completed. He calls attention to the extreme diversity of opinions of different writers upon this subject, and admits that to-day it is quite impossible for us to determine with any certainty just where the light reflex is completed, although there is much evidence to place it in that part of the oculomotor nucleus just beneath the anterior corpora quadrigemina. He has devised a diagram showing the reflex activities of the pupil, which bears some resemblance to the other diagrams of the optic tract, but lays more stress upon the connection with the spinal cord. He thinks that the light reflex of the pupil is such an exceedingly active one and responds to such slight stimuli that the slightest defect in its mechanism is likely to inhibit it, therefore the slight degeneration of the cells of the spinal ganglia, which have something to do with it, may be sufficient to destroy it. The mycosis that occurs in locomotor ataxia is proof that this degenerative process is associated with more or less irritation. [J. S.]

6.—Riedinger reports several instances of **voluntary dislocation of the humerus**. Most of them are collected from the literature, but one occurring in a boy of 11½ years was observed by himself. Three years previously the boy had dislocated his shoulder joint whilst working in a gymnasium. This he reduced spontaneously at the time, and subsequently he discovered that he could dislocate his arm spontaneously without pain. In order to do this he brought it slightly away from the side, elevated it slightly forward and the dislocation backward and downward with rotation of the upper arm inward then occurred. The forearm was slightly flexed. Occasionally he had dislocated the humerus downward and forward. Whilst this was being done, the shoulder-blade became horizontal, being thrust laterally and the angle pointing upward. The muscles that contracted most distinctly were the deltoid and the supraspinatus. The dislocation could readily be distinguished upon the radiogram. [J. S.]

7.—The patient, a girl of 14, had marked inequality of the shoulders. This was not due, as was suspected, to scoliosis, but to complete **absence of the left cucullaris**. There was a deep groove in the inferior cervical triangle. The lower angle of the scapula was higher and projected more posteriorly. The skeleton was symmetrical. There was no defect in movement of the arm and no tendency to fatigue. [J. S.]

8.—Reizenstein has examined 12 certain and 6 doubtful cases of carcinoma with reference to the occurrence of **angiomata of the skin**. Of the 12 certain cases 7 had no angiomata, and 5 had angiomata in various numbers up to 40. Of the doubtful cases 3 had no angiomata, 2 had each

one angioma, and one had numerous angiomata. In 230 cases with mild disease the results were positive in 52, negative in 178. Among the positive cases some had as many as 50 angiomata. He therefore concludes that angiomata are to be regarded as degenerative processes of the skin, and not of any value whatever in the diagnosis of carcinoma. [J. S.]

9.—Trumpp calls attention to the fact that O'Dwyer, Trendelenburg and Stockum have all suggested the production of chloroform narcosis through a laryngeal cannula introduced from the throat. Therefore Schlechtendahl and Kuhn are in error when they think that the idea is original with them. [J. S.]

March 18, 1902. (No. 18.)

1. Abdominal Total Extirpation in Complete Rupture of the Uterus. J. AMANN, JR.
2. Aniline Colors as Reagents for the Precipitation of Albumin. M. HEIDENHAIN.
3. Remarks Upon Silicic Acid. H. SCHULZ.
4. The Surgical Treatment of Spasm of the Cardia. F. CAHEN.
5. A Case of Peculiar Stenosis of the Small Intestine. A. GROTH.
6. Gangrene in the Lungs After Aspiration of a Grain of Corn. E. SCHLECHTENDAHL.
7. Purpura Hemorrhagica and Genital Tuberculosis. GOSSNER.
8. Report of the Medical Polyclinic in Munich in the Year 1901. MORITZ.
9. Experiences and Thoughts Upon the Arrangement of Hygienic Museums. K. LEHMANN.

1.—A multipara, 30 years of age, fell into labor and the midwife recognized an oblique position of the child. An attempt was made at version without success, and then a consultant, upon introducing his hands into the uterine cavity, recognized rupture. The child was rapidly extracted, the uterus packed with gauze and ergotin injected. The patient was immediately taken to the hospital and showed all the symptoms of severe internal hemorrhage. An operation was immediately performed and a large tear found in the uterine wall, extending upward, and a considerable quantity of fluid blood was found in the peritoneal cavity. The uterus was therefore removed, the hemorrhage controlled and the wound closed. The patient made a good recovery, but there was evidence of vesicovaginal fistula. This gradually closed spontaneously and the patient was finally sent home in excellent condition. The second case, a primipara, could not be delivered on account of a narrow pelvis and a large child. After the pains had persisted for 6 days, craniotomy was performed, and a large tear in the posterior wall of the uterus was immediately discovered. The patient showed symptoms of anemia and was brought to the hospital. An immediate operation was performed, the uterus removed and the wound partially closed. The patient made a good recovery in spite of the fact that frequent examinations during labor had rendered infection very likely. Amann recognizes 3 methods for **treatment of rupture of the uterus**. First, the suture of the tear; second, the supravaginal amputation of the ruptured uterus; third, total extirpation of the uterus. The disadvantage of suture is that the results have not been altogether favorable and there is danger of renewed rupture at a subsequent pregnancy. Therefore it should be limited to those cases in which the tear is slight and the edges in good condition. The supravaginal amputation, particularly the form suggested by Porro, with extraperitoneal treatment of the stump, is easiest, and therefore the most available for the general practitioner. Total extirpation is of advantage, because it removes all possibility of infection. It is best done by the abdominal route. It can be easily performed and there is little danger of secondary hemorrhage. [J. S.]

2.—Heidenhain has tested the properties of some of the aniline colors with reference to the precipitation of albumin. The experiments were performed in this way. One of the acid colors, such as a sulphonic acid salt, is dissolved; the albumin is also dissolved in a 10% solution of

acetic acid, and to 2 cm. of this solution 2 drops of the acid color salts are added. The albumin is immediately precipitated in flocculi which are brilliantly colored with the color of the salt. In some cases the more acid colors, as blue black "B," or particularly brilliant black 3 B, may have only a moderate precipitant action, whereas some of the acid, as violet black, may have a very powerful precipitant action. He suggests violet black as a test for albumin in urine. The method is to acidulate the urine strongly with acetic acid, that is to about .4%, and then to add 1 or 2 drops of the solution. The group of colors to which congo red belongs also give very beautiful color reactions. The basic color salts have a slightly different action, as the albumin is more attracted by the acids, absorbs a certain amount of the basic coloring matter and this causes the discoloration of the solution. [J. S.]

3.—Schulz has performed an elaborate series of experiments upon silicic acid in order to determine just what position it should hold in therapeutics. It apparently has little or no antiseptic action even in relatively strong solutions. He found that it occurs in considerable quantity in the tissues, the quantity being apparently more or less proportionate to the amount of negative tissue present, although the quantity decreases with age and is always greater in young than in old persons. Among the common people various substances containing silicic acid are commonly used, and it is also employed very extensively by the homeopaths internally. Its chief use for local purposes appears to be in controlling suppuration, and internally as a remedy for gout. It is possible to produce a soluble form of silicic acid by adding to sodium or potassium silicate some HCl. The silicic acid is then precipitated in the form of a jelly-like substance. This can be dried, powdered and dissolved in weak soda solution by the addition of equal parts of alcohol with water, and *spiritus silicatus* is obtained. [J. S.]

4.—Cahen reports an interesting case. A butcher, 35 years of age, had some nervous trouble as a result of sickness in the family. He had difficulty in sleeping and some disturbance of the stomach. He frequently vomited and had great difficulty in swallowing liquids. The condition continued until finally, on the evening of a Jewish fast, he found it impossible to retain any nourishment whatever. An elastic stricture of the esophagus was found which could be dilated with some difficulty by sounds, but the patient experienced no relief. A diagnosis of elastic stricture of the cardia was made and, as it had failed to yield to treatment extending over several months, gastrostomy was performed. From the stomach, then, sounds were introduced into the stricture and remained sometimes for periods of 24 hours. The esophagus was thoroughly washed out every day, and the patient was finally discharged cured. Partial recurrence, however, took place, and it was necessary to pass an esophageal sound every day. No free HCl was found in the stomach contents. A diagnosis of carcinoma had been made, but the subsequent course of the case proved that this was not correct. The most remarkable symptom was the fact that the patient could not swallow water, although a sound readily passed the stricture. The esophagus above the stricture was considerably distended and always contained a considerable amount of excessively fetid material. It was found of considerable advantage in passing a sound from the stomach into the esophagus to have a thread which passed from the stomach to the mouth, and by which a sound could be drawn in. The true diagnosis of the case is probably the reflex spasm of the cardia occurring idiopathically in a person with nervous diathesis. [J. S.]

5.—A man, 38 years of age, had suffered from disturbance of digestion from his childhood. He finally developed in the lower portion of the abdomen; there was difficulty in defecation and in discharge of flatus. Laxatives had no effect. Finally it produced obstruction and vomiting, and the patient was brought to the hospital. The abdomen was distended and tender and there was evidence of a loop of intestine filled with feces on the left side of the umbilicus. The patient grew rapidly worse and laparotomy was performed. The intestines were found enormously distended, and this was relieved by an incision through which a considerable amount of feces was discharged and an artificial anus made. The patient, however, died on the second

day. At the autopsy an ulcer was found in the lower portion of the ileum which had produced a contraction through which it was difficult to pass a lead-pencil. There is some difficulty in diagnosing this case. Microscopically the tissues did not show any evidence of tuberculosis, and there is reason to believe that it might be of the nature of the so-called catarrhal ulcer. The treatment, of course, was operation. [J. S.]

6.—Schlechtendahl reports the case of a girl who was brought to the clinic suffering from what appeared to be bronchopneumonia. She was seriously ill, respirations were 80 and labored; the intercostal spaces were broad and there was dulness on the right side posteriorly. In this dull area the respiration was bronchial and feeble and the vocal resonance was lost. Aspiration over the dull area showed the presence of pus and immediate thoracotomy was performed. The condition of the patient did not improve and there was gradual progress of the pulmonary gangrene. A further operation was performed and the gangrenous area cauterized with the Paquelin cautery. The patient, however, did not improve and finally died of sepsis. The only micro-organisms found in the pus were staphylococci. At the autopsy a head of wheat about 5.5 cm. in length was found in the right lower bronchus of the second degree. Actinomycosis granules were found in the immediate neighborhood of this, but not elsewhere in the lung. The case was difficult to explain, because there was no history of an aspirated foreign body. However, the parents stated that the child had had whooping cough before pulmonary symptoms developed and this may have represented the irritation of the bronchus. It is difficult to explain why actinomycosis of the lung did not develop. [J. S.]

7.—Gossner reports the case of a man who had had various symptoms of tuberculosis, such as cold abscess, dry pleurisy, etc., who received an injury to the left testicle. Nine days later he noticed that the organ was greatly swollen; he then had severe pains in the right large toe and developed an eruption of purpura hemorrhagica. He improved upon salicylates, but had several renewed attacks. After the removal of the left testicle and epididymis the patient remained permanently well. [J. S.]

8.—Moritz reports the service at the Polyclinic in Munich. The number of new cases that presented themselves was 9557 in the year 1901. Of these, 1688 suffered from diseases of the larynx and the neighboring cavities. The service seems to have been similar to that ordinarily observed in dispensaries. It is interesting to note that 106 cases are diagnosed as catarrhal fever, a rather indefinite disease. There were 1562 cases of phthisis and 500 of bronchial catarrh, some of which probably belonged to the former group. There were only 6 cases of leukemia and 40 of diabetes. Pseudoleukemia was apparently not observed. [J. S.]

9.—Lehmann discusses the preparation, conservation and arrangement of the exhibits of the hygienic collection in Würzburg. He describes how several difficulties have been met more or less successfully, and the article, which is not adapted to an abstract, should prove of great value to others who contemplate arranging similar museums. [J. S.]

March 25, 1902.

1. Difference Between the Fetal and Maternal Bloodserum and the Agglutination and Precipitation and Inhibitory Action of Normal Serum. J. HALBAN and K. LANDSTEINER.
2. Splitting the Kidneys in Acute Angionephritis With Miliary Abscess. WILMS.
3. Contribution to the Knowledge of Adrenal Diabetes. L. METZGER.
4. Roborat and Other Albuminous Preparations and Their Application in the Nutrition of Invalids. J. HOPPE.
5. Intra-ocular Galvanocaustic. A. ROSCHER.
6. Statistical Report of the Royal University Polyclinic for Children's Diseases in Reisingerianum for 1901. C. SEITZ.
7. Vibration Massage of the Hearing Organs. A. LUCAE.
8. The Position of Homeopathy in Modern School Medicine. KUNKEL.

9. The Legal Responsibility of the Physician in Antiquity.
J. PREUSS.

1.—Halban and Landsteiner have made a series of experiments with the blood from the mother and the child, obtaining the mother's blood from the retroplacental hemorrhage and that of the child from the cord after it was ligated. They tested the hemolytic, bactericidal, agglutinative, antifermentative, antitoxic and cytolytic activities of the blood in both cases, and then performed a number of experiments upon the precipitable and agglutinable substances. The general conclusions are as follows: (1) Maternal and child's blood frequently react differently; the mother's serum is capable of dissolving a greater number of red bloodcells than the child's serum; (3) the mother's serum agglutinates the bloodcorpuscles more energetically than does the child's serum; (4) it has greater bactericidal powers (against the vibrio of cholera); (5) it has a greater antifermentative power (antitryptic); (6) it has greater antitoxic powers (against the agglutination of blood, against abrin and ricin); (7) it gives more precipitates when a precipitating immune serum is added; (8) precipitating serums added in excess have an inhibitory action upon the agglutinin and precipitin; and (9) an excess of the precipitating immune serum is capable of preventing precipitation; (10) in general it may be said that the chemical activity of the tissues of the newborn child as compared to those of the adult may be considered as not completely developed. The active principles of the serum are present, but not in the same degree as they are in adults. This, perhaps, indicates that in the newborn children there is less resistance toward infection, and it would be exceedingly interesting to determine at which time and in what manner the change in the qualities of the serum occurs. [J. S.]

2.—Wilms calls attention to the progress that has been made by conservative **surgery of the kidneys**. Recently it has been shown that in multiple abscess of the kidney incision of the capsule with relief of tension may be followed by cure with conservation of some of the renal substance. He reports the case of a woman, 23 years of age, who was suddenly attacked with leukorrhea associated with symptoms of urethritis, cystitis and then pain in the lumbar region. There was high temperature, a large amount of pus in the urine and the physical signs of enlargement of the right kidney. An operation was performed which consisted practically of nephrotomy, numerous small abscesses being seen in the kidney-substance through the capsule. After the incision of the kidney the pelvis was opened with scissors. The kidney was not extirpated, but all visible abscesses were opened and the kidney was surrounded by sterile gauze. A large amount of urine was discharged along the drain and the patient ultimately made a perfect recovery, the fistula in the side through which urine had been discharged gradually closing. Bacteriological cultures showed the presence only of the colon bacteria. Wilms collected the cases in which this operation was performed, apparently 7 altogether. Of these, data concerning 6 could be obtained, 5 recovered. Two other cases are reported from the American literature, in both of which recovery ensued. [J. S.]

3.—Metzger has performed a series of experiments with the object of determining what relation the adrenal substance bears to the production of glycosuria. The experiments were performed on dogs and rabbits. Some of these animals, after sugar was found to be absent from the urine, were injected with adrenal extract and then 1 or 2 hours later killed by bleeding. Others were subjected to nephrectomy and then injected with the adrenal substance. The blood was collected from both sets of animals, freed of albumin and the amount of sugar determined by the polariscope and by titrating by Fehling's solution. It was found that the amount of sugar in the blood was increased as a result of the injection of the adrenal substance. The quantity of glycosuria, however, showed considerable variation in different animals. [J. B.]

4.—Hoppe describes some experiments with **roborat**, an albuminous nutritive substance. He found in 2 cases that from 92% to 95% of its nutritive value is utilized in the animal's economy. Experiments were also made with this substance as a nutrient enema and for the purpose of in-

creasing nutrition by hypodermic injection beneath the skin. By both methods it proved itself to be of considerable value, and especially after the latter form of administration there were no signs of general or local reaction. Experiments upon the metabolism also showed that upon a diet of this roborat the amount of uric acid excreted was considerably diminished. [J. S.]

5.—Roscher describes some cases treated by van Millingen's method of **intra-ocular galvanocauterization**. First, a child of 6 had the eye injured by a small shot and there were symptoms of commencing panophthalmitis. There was immediate improvement with recurrence in 3 days, requiring enucleation. The second case, a boy, 5 years old, had the eye injured by a rusty nail. After thorough cauterization the symptoms all improved and the patient was discharged with a well-preserved blind eye. The third patient, a boy of 18 years, was kicked in the left eye by a horse. There was a penetrating wound of the sclera through which vitreous protruded. This was removed, thorough cauterization was performed and the eye recovered with persistence of about 5/8 of normal vision. The method consists of first thoroughly cauterizing the edges of the wound, then inserting a platinum loop which is heated to a glow and moved in and out for about 3 or 4 seconds and withdrawn. It is not known exactly how this method acts, but it is probable that it is of quite as much use in postoperative ophthalmitis as it is in the traumatic forms. [J. S.]

6.—Seitz reports the statistics of the pediatric clinic in Reisingerianum in the year 1901. Altogether there were 11,044 patients. The largest number in any month was in January; the average was about 30 new patients per day. Of these, 326 patients died, the most serious disease being apparently bronchopneumonia, with 97 deaths in 137 cases; next serious, gastro-enteritis with 72 in 130 cases. Fifty-three of 166 cases of tuberculosis also died. Whooping cough seemed to be the commonest disease, 451 cases being recorded. It is interesting to note that epilepsy occurred only 21 times, tetany only 3 times and diseases of the spinal cord only 9 times. [J. S.]

7.—Lucae answers Holm's criticism of his methods and instruments for producing vibration of the ear. He states that he does not believe that his methods will cure deafness of certain types, but that they are of great value in other forms. The chief indication for persistence in their use is improvement after the first treatment. [J. S.]

8.—Kunkel calls attention to the inability of the homeopathic school to produce any contributions to scientific medicine. [J. S.]

9.—Preuss calls attention to a number of penalties to which physicians guilty of malpractice were subject among the early Hindoos, the Greeks and the Jews. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

April 7, 1902. (39 Jahrgang, No. 14.)

1. The Multiplicity of the Complementary Bodies of Serum. P. EHRLICH and H. SACHS.
2. The Identity of Streptococci Pathogenic for Human Beings. ALEXANDER MARMOREK.
3. The Mechanical Disposition to Tuberculosis, With the Result of Rhinoplasty for Lupus. E. HOLLAENDER.
4. A Case of Ménière's Disease With Recovery. JOSEF GESCHEIT.
5. Syphilitic Stenosis of the Small Intestine. FRITZ ROSENFELD.
6. Cylindruria With Artificially Produced Bile Stasis. P. S. WALLERSTEIN.
7. The Treatment of Chronic Gonorrhea. EDMUND SAALFELD.

1.—Will be abstracted when concluded.

2.—The question whether all the streptococci which occur in different diseases are the same has often been discussed. That they are identical has already been shown by Marmorek. They all possess three peculiarities: the production *in vivo* of hemolysis of rabbit's blood, the inability to grow upon a filtrate of their own cultures, and the immunization of animals by Marmorek's streptococcal antitoxin. These were demonstrated by streptococci from 42 different diseases, the experiments being described. The virulence of the streptococci may be increased. [M. O.]

3.—Primary tuberculosis of the nose was considered rare, but Holländer has found it with lupus in several cases. Unless this heals under treatment, the nares become stenosed, and tuberculosis of the upper air passages follows. This may, however, heal if the primary lupus recovers. The photographs of 2 such patients, upon whom rhinoplasty was performed for lupus with recovery, follow, with a description of the cases. [M. O.]

4.—Gescheit reports a case of Ménière's disease in a man of 48, which had appeared suddenly 4 years before. He took potassium iodide for some time and had otitis media treated without improvement. As epilepsy, a brain lesion and neurasthenia were excluded, the diagnosis of Ménière's disease was made. Galvanization caused improvement in 2 months, total recovery following later. This shows that no relation existed between the disease and the otitis. His main symptoms were deafness, buzzing in the ears, vertigo and attacks of nausea and vomiting, sometimes with loss of consciousness. [M. O.]

5.—Syphilitic stenosis of the small intestine is very rare, most cases of stenosis following ulceration being tuberculous. Rosenfeld gives the case-histories of 3 cases, one observed by his father, the others by himself. One died, one recovered after operation and the other recovered upon mixed treatment. The case-histories show the early and late stages of syphilitic stenosis of the small intestine. In these cases tuberculosis was excluded. [M. O.]

6.—Wallerstein, by ligating the common duct in dogs, caused bile stasis, and pure cylindruria resulted, without traces of albuminuria. In dogs polyuria also developed. Epithelial and granular casts appeared in the urine first. These experiments and autopsy findings confirm Senator's opinion that urinary casts are formed by the epithelium of the urinary tubules. [M. O.]

7.—Saalfeld describes a catheter-sound for treating chronic gonorrhea. The sound is hollow up to the curve, and injections may be given through it. He also demonstrated a rubber catheter in which a spiral could be inserted to prevent bending. This is also shown by diagrams. [M. O.]

April 14, 1902. (39 Jahrgang, No. 15.)

Dilution Experiments in the Diagnosis of the Renal Function. G. von ILLYES and G. KOVESI.

2. The Treatment of Feeble Children. JULIUS RITTER.

3. Is Gonorrhea Curable in Prostitutes?

THOMAS von MARSCHALKO.

4. A Case of Tabes With Temperature Crisis.

BRUNO OPPLER.

5. The Multiplicity of the Complementary Bodies of Serum. P. EHRLICH and H. SACHS.

1.—von Illyés and Kövesi report a series of experiments upon patients to whom large quantities of water were given as a diluent, the urine then being collected by catheterization and examined. The catheters should be left in the ureters for over an hour, since by that time all irritation is overcome. Ten cases are divided into 2 groups, those in which secretion had wholly ceased in one kidney, and those in which it had only decreased. Cryoscopy was done in every case. They conclude that, to estimate the correct functional ability of each kidney, urine should be collected in catheters which are left in the ureters for some time; that, by diluting the urine by water ingestion, the diagnosis of the renal functions is better made; that, in surgical diseases of the kidney, the delay in the commencement of dilution of the urine, the difference in the 2 urines collected simultaneously, and the relative constancy of the molecular concentration, not influenced by the ingestion of more liquid and causing but slight changes in the freezing-point, will show decrease in functional activity of the kidney. [M. O.]

2.—Tuberculosis very often occurs in feeble children. Affections in weak children are spread by the lymph-channels. Then symptoms follow. Not only is albumin indicated, but some salt is needed for its assimilation. Sodium or potassium salts are necessary, while iron is excellent. Massage, sunlight, fresh air and bathing are advised for these children. Ritter also gives lipanin and extract of malt. A strengthening régime should be observed with all weak children to prevent the development of tuberculosis. [M. O.]

3.—In 16 months von Marschalko has treated 161

women with gonorrhea, excluding the vulvo-vaginitis of children and rectal gonorrhea. The uterus was affected in 108, the urethra in 99 and the Bartholin glands in 37. Gonorrhea of the urethra and glands of Bartholin was cured in every case by protargol solutions. In 101 out of 108 cases of uterine gonorrhea recovery followed protargol injections, yet in 7 cases gonococci persisted in spite of all treatment. His investigations show that in the great majority of cases gonorrhea in prostitutes is curable. Prophylactically he advises an injection of a 20% protargol solution. [M. O.]

4.—Oppler reports the case of a man of 41 with tabes, who had a sudden rise of temperature to 104°, with a feeling of oppression only, the temperature falling to normal the next day with profuse sweating, a typical critical defervescence. All other causes of fever were excluded.

[M. O.]

5.—Earlier researches have shown the plurality of the complementary bodies of serum. Ehrlich and Sachs detail 5 experiments which show that at least 3 different complementary bodies, one absolutely separate from the other, exist in goat's serum. While heating showed differences, it did not permit the differentiation of the complementary bodies. Absorption experiments, which are described in full, show that the multiplicity of complementary bodies seems more probable than one complementary body with several different zymotoxic groups. Further experiments show that it is a fact that the action of 5 different complementary bodies was noted in goat's serum. Other experiments prove at least 2 different complementary bodies in the serum of rabbits, dogs and guinea-pigs. [M. O.]

April 21, 1902. (39 Jahrgang, No. 16.)

1. The Clinical Importance of the Personal Factor in Disease. SIR DYCE DUCKWORTH.

2. The Existence of Diabetogenic Leukomaines.

R. LEPINE.

3. Acute Rheumatic Polyarthritides With Typhoid Fever.

P. K. PEL.

4. A New Method of Investigating the Gastric Functions.

SAHLI.

5. The Relation of Tubercular Diseases of the Skin to the Internal Organs. O. von PETERSEN.

6. Supernumerary Venous Pulse. G. ASCOLI.

7. Congenital Syphilis Resembling Banti's Disease.

EDMUND HOCKE.

8. The Effect of Oxygen Inhalations. JOSEPH KOVACS.

9. Tapping-Auscultation and Transsonance in Determining the Stomach Boundaries. AXEL BLAD.

1.—Duckworth lays stress upon the individual factor in the treatment of disease. The diatheses are still to be considered, predisposition of rheumatism, gout or tuberculosis. While the laboratory is an aid in diagnosis, the individual peculiarities should never be forgotten by the physician. [M. O.]

2.—Diabetes may be due to diabetogenic leukomaines, as Lépine proves in a series of experiments, which demonstrate that the pancreas normally destroys diabetogenic poisons as one of its physiological functions. [M. O.]

3.—Pel reports a rare case of articular rheumatism occurring in a patient with typhoid fever. A man of 48 became ill with rheumatic polyarthritides. He had never had rheumatism, but arteriosclerosis was noted. He was kept in bed, from fear of recurrence, for 4 weeks. Then he complained of headache, malaise, etc. Fever, eruption and enlarged spleen followed. The Widal reaction was negative throughout and after the illness. In the second week rheumatism re-appeared. In spite of the constant absence of the Widal reaction, the symptoms of typhoid were typical. The lack of heart symptoms excluded endocarditis. Pel believes that a recurrence of acute rheumatic polyarthritides occurred co-incidentally with an attack of typhoid fever. [M. O.]

4.—Will be abstracted when concluded.

5.—Among the tubercular skin diseases are lupus vulgaris, tuberculosis verrucosa cutis, lichen scrofulosum, scrophuloderma or gumma tuberculorum and probably acne cachecticorum and Bazin's indurative edema. Lupus is curable by the Finsen light treatment. About 33% of lupus patients are hereditarily predisposed to tuberculosis; nor are pulmonary affections rare in patients with lupus.

von Peterson concludes that any localized tubercular disease may cause general tuberculosis; that statistics to show the frequency of this are as yet wanting; and that, as our knowledge of tuberculosis shows that skin tuberculosis is purely a local affection, treatment should be local. [M. O.]

6.—Ascoli reports 3 case-histories of patients in whom a venous pulse was present, which, while at times synchronous with the carotids, at other times became much more rapid, even doubling it. This negative venous pulse, due neither to an arterial pulse, cardiac shock nor murmur was accompanied by complete cyclical heart's action. Ascoli concludes that the different parts of the heart are capable of dissociated action. His observations show the possibility of the dissociation of the right from the left heart; especially have they shown the possibility of a dissociation of the auricles from the ventricles. In these cases the contractions of the auricles are more frequent than those of the ventricles, while some of the auricular contractions cease at the atrioventricular boundary, (Gaskell's "blocked heart.") This seems to point to the auricles as the normal point of the heart's contraction. A "blocked heart" is thus diagnosticated by observing a venous pulse corresponding to a truly intermittent arterial pulse. [M. O.]

7.—Hocke reports the case of a young woman of 20, with pain in the splenic region for 3 years, the sensation of a foreign body under the ribs on the left side, vomiting, sometimes with blood, weakness, pallor, dyspnea and palpitation. Examination showed a much enlarged spleen and liver. Blood preparations gave 3200 leukocytes, 60% polynuclear neutrophils, 31% lymphocytes, and 9% polynuclear eosinophiles. There were 3,750,000 erythrocytes, moderate poikilocytosis and nucleated red corpuscles later. Before death the leukocytes reached 58,400, the erythrocytes falling to 2,640,000. Hemoglobin fell from 7 to 2.5 gm. Myelocytes were noted in the last specimen examined. The autopsy revealed chronic interstitial hepatitis, enlarged spleen, dilated esophageal veins, universal anemia, obsolete tuberculosis of the left lung and bronchial glands and genital hypoplasia. While this resembled Banti's disease, leukopenia with lymphemia was present, as found in congenital syphilis. Hocke considers this more probable syphilitic hepatitis with precirrhotic splenic tumor, and hemorrhage from an esophageal varix, diagnosed during life. Splenectomy was not indicated on account of the rapid course of the disease. [M. O.]

8.—As a result of experiments, Kovács found that the freezing-point of blood increases when breathing becomes insufficient, and that a similar result follows carbonic acid gas in the blood; that this decreases when oxygen is inhaled. Therefore the abnormal increase in the osmotic pressure of the blood is favorably affected by inhalations of oxygen, and excretions of carbonic acid gas increase since the blood receives more oxygen than is possible from the air. The dyspnea and cyanosis of cardiac patients decrease, the pulse-rate diminishes and becomes more regular, and diuresis results. [M. O.]

9.—Blad describes Runeberg's method of tapping-auscultation and transsonance in determining the boundaries of the stomach. The stethoscope is held over the stomach while light tapping is done upon the abdominal wall with one finger tip. The sound elicited markedly changes when the edge of the stomach is reached. Blad concludes that it is not only of value in determining the size and position of the stomach, but may be used to locate other abdominal organs. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

March 13, 1902. (XV. Jahrgang, No. 11.)

1. Experimental Transplantation of the Kidney. EMERICH ULLMANN.
 2. The Destruction of Albumins in the Liver. TOEPFER.
 3. The Treatment of Epityphlitic Douglas Abscess. FRITZ PENDL.
 4. Uterus Bicornis With Twin Pregnancy and Placenta Incarcerata. OTTO RUDL.
- 1.—Ullmann has successfully transplanted the kidney of one dog to the inguinal region or neck of another dog.

In the neck, the renal vein and artery were attached to the jugular vein and carotid. The kidney continued to functionate, excreting urine through the ureter. [M. O.]

2.—As a result of experimentation, Töpfer concludes that, after the passage of blood through the liver, there is no accumulation of the products of albumin destruction in the blood, even when globulin from a foreign body has also been introduced. When peptone is added, a slight increase of coagulable albumins follows, with a decrease in the albumoses. The products of albumin destruction increase when blood is passed through both liver and intestines. The same result follows simple extirpation of the kidney. [M. O.]

3.—The diagnosis of epityphlitic Douglas abscess depends upon rectal exploration, when resistance is noted high up, on the anterior wall of the rectum. A parasacral incision permits the evacuation of pus. The abscess is not recognizable by palpation of the anterior abdominal wall. Epityphlitic Douglas abscess occurs in 30% of appendicitis cases. There may be shock, perforation, peritonitis, etc. The pus seeks the lowest point and becomes confined to the cul-de-sac of Douglas. Yet the diagnosis is exceedingly difficult. Among the important symptoms are subacute intestinal obstruction, urinary troubles, tenesmus, gaping of the anus with purulent secretion, meteorism, constipation, eructation and vomiting. The treatment is evacuation through the rectum, perineum, sacrum or vagina. The sacral or parasacral method is Pendl's favorite operation. The free peritoneum is not opened, as in laparotomy, nor is any cause for possible hernia left. Fourteen case-histories follow, 11 of the patients recovering and 3 dying. [M. O.]

4.—Rudl reports a case of uterus bicornis with twin pregnancy and placenta incarcerata, in a primipara, aged 36 years. Delivery was completed by the use of forceps. The twins, both boys, strong, but not alike in feature, and the mother are living and well. [M. O.]

March 20, 1902. (XV. Jahrgang, No. 12.)

1. Remarks Upon Döderlein's Method of Vaginal Hysterectomy. A. von MARS.
2. Investigations on the Oculopupillary Sensory Reflex. LADISLAUS von VARADY.
3. The Psychical Disturbances in a Case of Acute Yellow Atrophy of the Liver. KARL von WIEG.
4. Experimental Transplantation of the Kidney. A. von DECASTELLO.

1.—Of 50 cases of vaginal hysterectomy performed, von Mars lost but one patient, 25 were done by the Doyen method, 8 by the Döderlein method and the rest by other methods. He first tried Döderlein's method last spring. The case-histories of 8 patients follow. He concludes that Döderlein's method is not of service in cancer of the uterus when the posterior uterine wall is affected; that this method does not protect the field of operation from the uterine secretion; that it permits taking special care of the ligaments; that fibromyomata of large size may be removed; finally, that the pregnant uterus or the uterus after parturition can easily be removed by the Döderlein method. [M. O.]

2.—Upon slight irritation by touch, heat, cold or electricity, the pupil gradually dilates and then returns to normal. When stimulation is maintained some time, the pupil dilates, then contracts below normal. Finally it may dilate again, contract again and become normal in size. This reflex von Várady believes to be a peculiar elastic trembling of the pupil. In only a few cases was this reflex absent. His experiments upon 25 patients show that in hysteria and other functional disturbances whether anesthetic or hyperesthetic, this reflex may or may not be present. With the organic anesthesia of tabes, hemiplegia, etc., it is always absent. In trigeminal neuralgia it was increased. From his investigations he concludes that no organic anesthesia can be present when this reflex is obtained. [M. O.]

3.—von Wieg reports a case of acute yellow atrophy of the liver in a man of 32, who first showed gastric symptoms a week before admission. Five days later jaundice appeared, with temporary loss of consciousness. He was very restless, delirious, slightly feverish and universally jaundiced. There was no tenderness over the liver. H

died on the day following admission. The autopsy confirmed the diagnosis of acute yellow atrophy of the liver. Streptococci and staphylococci were found. Following chronic gastric catarrh a purulent inflammation of the bile duct occurred, spreading to the gall-bladder and thence into the liver. From the liver the bacteria reached the circulation, causing general symptoms. [M. O.]

4.—von Decastello states that he transplanted a kidney from one dog to another in 1899, though by a much more complicated method than the one recently described by Ullmann in the last number of this journal. [M. O.]

March 27, 1902. (XV. Jahrgang, No. 13.)

1. Four Hundred Operations for Stone in the Bladder. A. von FRISCH.
2. The Operative Treatment of Rhinophyma. PAUL RUSCH.
3. The Effect of Bactericidal Immune Sera. FRIEDRICH WECHSBERG.
4. A Case of Repeated Extra-uterine Pregnancy. W. PHILIPOWICZ.
5. An Automatic Syringe. SIEGFRIED SPIEGEL.

2.—After reviewing the literature, Rusch reports 2 case-histories of rhinophyma in women of 59 and 43. The changes in the nose had begun 15 years before. In one, treatment consisted of incisions, with cauterization to stop hemorrhage and to form the new shape of the nose. Where hypertrophic acne existed on the cheeks it was also removed by the cautery. In the other case a plastic operation was performed. Neither wedge-shaped excision nor excision of the subcutaneous connective tissue has given a permanent result. Therefore Rusch advises total extirpation of the hypertrophied skin of the nose, with skin transplantation afterward. [M. O.]

3.—From his experiments Wechsberg concludes that Gruber's conception that bactericidal immune sera check hemolysis is correct. He cannot believe that anticomplementary bodies are formed by immunization with bacteria, as Gruber states. On the contrary, he agrees with Ehrlich and Morgenroth upon the mechanism of large doses of bactericidal immune sera. [M. O.]

4.—A woman of 30 entered the hospital with a history of supposed abortion 3 months before. Laparotomy revealed an infected mass containing a fetus 8 cm. long, to the right of the uterus. She recovered, but returned 2½ years later with a similar condition to the left of the uterus. She recovered after a second operation. No adhesions were found in the position of the former operation. [M. O.]

5.—Spiegel describes a syringe for hypodermic injections which may be manipulated by one hand, working automatically. It can be completely sterilized and is advised for infiltration anesthesia, serum injections and for washing out cavities which can be reached with difficulty. Diagrams of the syringe are given. [M. O.]

EDINBURGH MEDICAL JOURNAL.

April, 1902. (Vol. XI, No. 4.)

- Latent Pneumonia. HARVEY LITTLEJOHN.
- A Few Cases Illustrating the Results of Operative Interference for Fractures About the Elbow Joint. W. ARBUTHNOT LANE.
- The Heart in Diphtheria. CHARLES BOLTON.
- Contracted Bladder Treated by Graduated Fluid Dilatation. A. W. MAYO ROBSON.
- The Edelmann 'Galton Pfeife.' H. MACNAUGHTON JONES.
- Some Observations on the Pathogeny and Treatment of Pes Cavus, etc. J. JACKSON CLARKE.
- Chylous Ascites Due to Peritoneal Carcinoma. R. MURRAY LESLIE.

1.—In the experience of Littlejohn, pneumonia is the most common of all acute inflammatory diseases that may run a latent course during the whole period of their existence. These cases are of especial medico-legal importance. During the years 1888-90 and 1897-1901 the author saw 33 cases of true latent pneumonia. The cases had the following characteristics in common: (1) the disease was unsuspected during life, the sufferers having exhibited no sign of bodily weakness sufficient to attract the attention of those living in close relationship with

them. (2) Death occurred suddenly or followed within an hour or 2 after the appearance of serious illness and before medical attendance was sought. (3) The disease was well advanced, the lung, in the majority of instances, being in the state of gray hepatization. It may, perhaps, be scarcely accurate to say that the disease gave no indication of its presence in all instances; since, in a certain proportion, strict inquiry from the friends disclosed that the deceased person had complained of a feeling of illness; sometimes of shortness of breath, pain in the side, cough, etc. But such complaints were indefinite in character and were usually not referred to again. Many of the patients gave a history of excessive alcoholic intemperance and, notwithstanding the modern views concerning the specific nature of the disease, the author believes that we cannot deny the potency of a chill and diminished vitality of the tissues in disposing to pneumonia. Basal lobar pneumonia is more apt to be latent than any other form. [J.M.S.]

2.—Lane reports several cases of fracture about the elbow joint. The first case was one of a compound fracture of the inferior extremity of the humerus which was produced by a fall from a horse onto a hard road. There was a large foul wound with much crushing and laceration of the soft parts and of the ends of the bone so that it was impossible to fit the fragments together with perfect accuracy when the fracture was wired. The second case was that of a man who was thrown from his horse, after which the animal trod on the outer aspect of the patient's right elbow. There was a fracture of the anterior segment of the head of the radius which was displaced forward. The loose and detached fragment was fitted accurately into its normal position and wired. The movements of the joint, while not perfect, were sufficiently extensive to give the man a useful arm. The third case was in the person of a man who was thrown heavily from his bicycle, sustaining a fracture of the anterior half of the head of the radius, which was then displaced forward. The head of the bone was removed. Recovery of movement was slow and painful and the mechanical result was not as good as that obtained by restoring the head of the radius to its normal form. A fourth case was one in which there was considerable outward displacement of one bone of the forearm and backward displacement of the other. Although the patient was not seen until 16 days after the accident, the bones were wired into their normal position and a very useful arm resulted. A fifth case was one in which there was fracture of the radius, with much displacement of the fragments, complicated by fracture of the ulna in 2 places. The bones were wired 3 months after the receipt of the injury and the result was very good. The sixth case was in the person of an officer who was thrown from his horse and sustained a backward dislocation of both bones of his forearm. The dislocation was reduced and he was directed to move his elbow joint freely. He was unable to do so and kept his arm rigidly flexed at a right angle. He was regarded as neurotic and was invalided home from his regiment. An examination by the X-rays showed that the tip of the coronoid process had been broken off at the time of the injury and the callus which had formed about the displaced fragments interfered with motion. [J. M. S.]

3.—Cardiac failure is one of the most important as well as the commonest of the toxic effects of diphtheria. Since the introduction of antitoxin it is much less common than formerly to see death resulting from involvement of the larynx, and now the majority of deaths from diphtheria are the result of heart failure. It is advisable to speak of cardiac failure as occurring in the acute and in the convalescent stages. Cardiac failure in diphtheria may lead to death by syncope, which may be quite sudden, but which is generally preceded by a progressive failure of the heart, which is rendered manifest by some disturbance in the regularity and alteration in the frequency of the pulse, with or without the physical signs of cardiac dilatation. Edema and other symptoms of heart failure have been described, but they are extremely rare. In acute diphtheria, death resulting from the severity of the toxic poisoning is due to a primary failure of the heart. This is seen in the severe faucial cases, in which the nose and sometimes the larynx are involved, in wound diphtheria and in cases of severe toxemia in which there are subcutaneous hemorrhages with or without bleeding from the

mucous membranes. The first sign of cardiac failure is noticed in the pulse, which becomes irregular in force and rhythm, which shows increased compressibility and which is, as a rule, rapid. The cardiac impulse may be diffuse and slapping; the patient occasionally experiences severe precordial pain; vomiting is variable; the urine generally contains albumin and it may be entirely suppressed for a day or more before death. The histories of 3 illustrative cases are given. Cardiac thrombosis is rare as a cause of death in diphtheria; but 3 cases have been reported by Woollacott. During convalescence, death from heart failure is usually associated with paralysis, and is especially seen in cases of generalized paralysis affecting the palate, the pharynx, the larynx and the diaphragm. Sudden death from syncope is most alarming, particularly when convalescence is established and the patient is thought to be quite free from danger. These sudden deaths are all referable to some strain which has been thrown upon a heart which is unprepared to meet it. A very large proportion of patients suffer from cardiac failure at some stage of the disease. This is indicated by irregularity or intermittence of the pulse with or without the physical signs of dilatation of the heart. It is rare to have pain or other symptoms, the patient usually feeling quite well. In such cases the pulse alters considerably both in degree of irregularity and in frequency during the 24 hours. These changes occur frequently and often at very short intervals. On the whole, the irregularity is most marked at night and usually persists during the night after the pulse has been quite regular during the day. As a rule, when the pulse becomes irregular there is a diminution in its frequency. The irregularity coming on in the acute stage is a primary affection; but is, nevertheless, greatly affected by strain. The irregularity does not conform to any type. The very great danger to which patients during the whole course of the disease are liable as a result of acute degeneration of the neuromuscular mechanism of the heart is apparent. This danger can only be rendered evident by a thorough and systematic examination of the heart and pulse in every case of diphtheria, however mild it may appear to be; and it can be best guarded against by keeping the patient in bed, or, at least, perfectly free from all excitement and strain as long as there are any signs of heart failure as shown by an irregular pulse or by the physical signs of cardiac dilatation. [J. M. S.]

4.—Robson reports the case of a woman, aged 35 years, who complained of frequent micturition, the passage of fragments of stone, and nocturnal and diurnal incontinence of urine. The bladder was found, on examination, to be hard and about the size of a walnut; its cavity was minute, held about $\frac{1}{2}$ ounce, and was lined by phosphatic concretions. The ureters were apparently free from disease and there was no enlargement of the kidneys. The phosphatic concretions were scraped away and the bladder was dilated by graduated fluid pressure until it held 8 ounces. [J. M. S.]

5.—Jones describes Edelmann's latest Galton-Pfeife, which is a whistle used to estimate the perceptive power of the ear for high tones. [J. M. S.]

6.—Clarke contributes a paper on the pathogenesis and treatment of pes cavus. Talipes cavus may be congenital; it may be an element in congenital talipes equinovarus; it may be secondary to talipes equinus or talipes equinovarus due to infantile paralysis; it may be secondary to paralytic talipes calcaneus; it may be secondary to talipes equinus from spastic paralysis, Friedreich's disease or other nerve affections; it may be part of a contracture of the ankle or foot due to gouty tendency; it may be due to traumatic or ischemic changes in soft tissues of the sole. The treatment of this condition includes division of the plantar fascia and short plantar muscles, division of the tendo Achillis and of the tendons of the abialis anticus and posticus muscles, massage and the wearing of metal splints in the shoes. Tendon transplantation is sometimes necessary. Medical treatment should be employed to correct any existing diathetic condition. [J. M. S.]

7.—Leslie reports the case of a woman, 52 years old, who indulged too freely in the use of alcoholic liquors. She had a distended abdomen, due to the presence of fluid; her liver was enlarged; there was dyspnea, and tapping revealed the presence of a milky fluid which contained numerous fat globules, leukocytes and albumin. The patient's left leg became swollen and edematous; there were nausea and

flatulence, vomiting and jaundice. The patient died and the post mortem revealed a large carcinomatous mass that involved the entire great omentum and infiltrated the greater portion of the mesentery. The mesenteric glands were also enlarged, and there was a carcinomatous growth in the right lobe of the liver, which involved the neck of the gall-bladder. The thoracic duct appeared to be normal and there was no sign of rupture. [J. M. S.]

ZEITSCHRIFT FUER HEILKUNDE.

March, 1902. (Volume 23, No. 3.)

1. Wounds of Goiters. JOSEF HERTLE.
2. Primary Resection in Gangrenous Incarcerated Hernia. ZAHRADNICKY.
3. The Histology of Tumors of the Hyoid Bone. G. W. MALY.
4. A Case of Axial Twisting in the Small Intestine. LEO WECHSBERG.
5. Chloroform Jaundice. LEO WECHSBERG.
6. The Changes in the Intestinal Wall Following Strangulated Hernia. M. JERUSALEM.
7. Sarcoma of the Diploe and Osteochondroma of Traumatic Origin. HEINRICH REIMANN.
8. Traumatic Lipemia. ERNST FUCHSIG.
9. Cysts of Ureter and Surrounding Tissues. CARL SINNREICH.

1.—Hertle reports 2 cases of goiter accidentally injured. In a woman of 55 a hemorrhagic cyst resulted, which was extirpated with recovery. The other, a woman of 72, died at once and a perforation was found from a cystic goiter into the right pleura, which contained $\frac{3}{4}$ liter of bloody fluid. Five similar cases are described in detail. [M. O.]

2.—In the treatment of gangrenous incarcerated hernia one of 3 methods should be used. Best is primary resection and enterorrhaphy; next comes the formation of an artificial anus with secondary resection, and the other method combines features of these, depending upon the needs of each case. The cause of death may be collapse, peritonitis, stenosis of the intestine or an intercurrent affection. The common cause of death is peritonitis. Infection in primary resection is not greatly to be feared. Enterorrhaphy should only be done upon healthy intestine. Cases in which the incarceration has existed but a short time are especially favorable for primary resection, when the heart is good and there are no signs of peritonitis. Out of 76 cases of incarcerated hernia, 14 were gangrenous. In 10 of them primary resection was performed, with enterorrhaphy. In 4 patients an artificial anus was made secondarily, all of whom died after having recovered from the operation. [M. O.]

3.—Maly reports the case of a tumor in a girl of 10 $\frac{1}{2}$ years, about the size of a pea, which had existed since birth to the right of the hyoid bone, painless, yet of rapid growth and during the past 2 months reaching the size of a walnut. The skin over the mass was movable, yet the cyst was attached to the hyoid bone. It was removed by operation, with a bit of the bone, when the tumor was found to reach the entrance of the larynx below and to the pharyngeal wall above. She quickly recovered. The tumor probably rose from the hyoid, the second branchial arch, and was an adenofibrosarcoma. It might have arisen from an accessory thyroid gland which had undergone peculiar stromous changes. [M. O.]

4.—Wechsberg reports a case of axial twisting of the small intestine in a woman of 28, who had noted severe abdominal pain 2 days before. This became worse, especially about the umbilicus, and vomiting and constipation followed. She had had right-sided inguinal hernia for 8 years, becoming irreducible with the attack. A similar attack had followed parturition 4 years before. Laparotomy showed a strangulated hernia, which was freed. But the pain persisted, with symptoms of intestinal occlusion. Laparotomy was again performed, and a volvulus with axial twisting of the entire small intestine to the right was found, with perforation in several places. Death from peritonitis followed resection. Wechsberg believes that the hernia was primary, yet its strangulation followed the axial twisting of the small intestine, resulting soon after the volvulus. [M. O.]

5.—After reviewing the literature of jaundice after chloroform anesthesia, Wechsberg reports 16 operations in which jaundice followed the use of chloroform, out of 100 patients

operated upon. Bilirubinuria was also present. In most cases jaundice developed on the second day after operation and lasted about 3 days. All but one recovered. The preparation of chloroform employed may have slight influence, but the amount used shows no relation to the grade of jaundice. Individual peculiarities seem important. But this predisposition depends upon the condition of the liver; for chloroform may cause degenerative changes in the liver just as it may affect the heart or kidneys. [M. O.]

6.—Jerusalem reports 2 cases of **strangulated hernia**, one of which was resected, the other not requiring operation. In both cases **enterostenosis** followed, for which resection was performed, one patient recovering, the other dying. The first case shows that cicatricial stenosis of the intestinal mucous membrane may follow incarcerated hernia, even though the incarceration exists but a few hours. The second case shows that chronic edema and peritonitis, without any decrease in the lumen of the intestine, may form such a stiff, sclerosed intestinal wall as to cause intestinal stenosis by preventing peristalsis. [M. O.]

7.—Reimann reports 2 cases of **tumors of traumatic origin**, a sarcoma of the diploe following continued pressure upon the forehead, and an osteochondroma on the metacarpal bone of the third finger of the left hand following a blow. In the first patient, a man of 33, excision of the tumor, a medullary sarcoma, was followed by recovery; in the second, a man of 59, removal of the tumor was also followed by recovery. [M. O.]

8.—Only 17 cases of **traumatic lipemia** are known in literature. Fuchsig reports another, in a girl of 17, who fell from the third story, breaking her right leg and left ankle. Convulsions followed, with death 72 hours later. Fat droplets, albumin and casts were found in the urine, and the diagnosis of fat emboli in the lungs and brain was made. The autopsy showed fractures of the lumbar vertebrae and pelvis, fatty droplets in the bloodvessels of all organs, especially of the lungs. In the brain all the capillaries, and in the kidneys and liver almost all, seemed filled with fat. There was slight intrameningeal hemorrhage. The cause of death was lipemia, the fat entering the circulation from the fatty tissues about the fractures. [M. O.]

9.—A woman of 35 complained of pain in the right hypochondrium, constant and severe. Cystoscopic examination showed a small pedicled cyst at the entrance of the left ureter. The urine was normal. The diagnosis made was floating kidney with incarceration and secondary hydronephrosis. As medical treatment was ineffectual, operation was performed, a cyst found which ruptured and was then excised. **Nephropexy** was done and she recovered. The tumor proved to be a **cyst of the ureter**. These may be epithelial, paranephritic, dilatation or retroperitoneal cysts containing blood or urine. This one was a paranephritic or a dilatation cyst, probably formed by an extra ureter, its peripheral end having become obliterated, dilatation following. [M. O.]

LA PRESSE MEDICALE.

March 15, 1902. (No. 22.)

1. The Treatment of Rectoperineal and Rectovaginal Fistulæ. GERARD MARCHANT.
2. Periodic Family Paralysis. C. ODDO and V. AUDIBERT.
3. The Administration of Quinine. ALFRED MA.

1.—Marchant reports a case of **rectoperineal fistula** in a woman of 22, who had had hysteropexy performed for uterine prolapse. The cystocele and rectocele which resulted were treated by perineorrhaphy. An infected suture probably caused the retroperineal fistula. Marchant dilated the anus and everted its edge, made a circular incision $\frac{1}{2}$ cm. above the anus, dissected off this cuff of mucous membrane and pulled it down through the anus, attaching it to the anal ring. The fistula was then packed. She recovered perfectly. [M. O.]

2.—This hereditary condition is characterized by a **periodic loss of voluntary movement** with loss of tendon reflexes and disturbance in the electrical reactions, without any sensory change or loss of intelligence. But 21 cases have so far been reported. Severe attacks occur upon awakening in the morning, it being impossible for the

patient to move. The attacks last but a short time. The diagnosis is easy, the paralysis seeming purely functional. Oddo and Audibert think that it should be called **family myoplegia**. Massage is indicated between and during the attacks, with gymnastics between attacks. No drugs have done any good. [M. O.]

3.—Martinet prefers using the neutral chloride of **quinine** on account of its solubility, best given in capsule. When administered in solution some acid should be added. In severe malaria it may be given hypodermically. It may also be given by rectal injection or suppository. Absorption occurs rapidly. Up to one year, $1\frac{1}{2}$ grains may be given daily; to 2 years, 3 grains; to 3 years, $4\frac{1}{2}$ grains; to 4 years, 6 grains. To an adult he gives 15 grains a day. [M. O.]

March 19, 1902. (No. 23.)

1. Direct Surgical Intervention in Aneurysm of the Arch of the Aorta. THEODORE TUFFIER.
2. The Union of the French Antituberculosis Societies. R. ROMME.

1.—Tuffier reports an **aneurysm of the arch of the aorta**, in a woman of 40, not syphilitic, the symptoms of which had existed 6 months. There was intercostal pain, anterior, posterior and down the right arm, with a pulsating tumor in the third interspace to the right of the sternum. This tumor was easily compressible when pulsation ceased. There was dulness on percussion, with a systolic murmur along the right edges of the sternum. There was no doubt that an aneurysm existed upon the ascending portion of the aorta, anterior to the origin of the brachiocephalic vessels. The diagnosis was confirmed by **radioscopy**. On account of the murmur it was decided that the opening into the aneurysm was narrow. Tuffier made an incision along the right border of the sternum from the second rib to the fifth intercostal space, came upon the aneurysm, freed its adhesions, found its opening and ligated it. The patient died suddenly of secondary hemorrhage, from gangrene of the sac, two weeks after the operation. Autopsy showed the ligature free among the clots. Yet Tuffier believes that the **sacciform aneurysms**, which may be reached, isolated and extirpated, should be **treated surgically**. [M. O.]

2.—Romme reviews the great work which the union of the **antituberculosis societies of France** hopes to accomplish. Seventy-six such societies met at the recent congress. In the future their work will be consolidated and more excellent results may be expected. [M. O.]

Acute Gout of the Pharynx.—In the *Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, (March 27, 1902), Lermoyez and Gasne report an odd and rare case. A man of 48, who had had articular rheumatism at the age of 13 and never since, with malaria, yellow fever, beri-beri, dysentery, and syphilis later, had become markedly neurasthenic. Suddenly he complained of a severe sore throat. Tonsils and palate were red, and fever and dysphagia appeared. One tonsil swelled so that the condition resembled peritonsillar abscess. These symptoms disappeared suddenly with the onset of a typical paroxysm of gout affecting the big toe. Sodium salicylate and colchicum cured this in 5 days. This case Lermoyez and Gasne believe to be one of evident gout of the pharynx. They divide pharyngeal symptoms in gouty patients into the doubtful gouty cases, with simple angina; the probable gouty cases, the angina taking the place of the gouty attack; and the evidently gouty cases, alternating with paroxysms elsewhere, they having collected the few cases in the literature under these heads. The larynx may also be affected. Verdalle (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, May 1, 1902) reported a case of probable gouty angina, the throat condition taking the place of gouty attack. Sodium salicylate cured the condition. Another case, very similar to this, was reported by Scherb, in an officer, aged 53. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, May 8, 1902). [M. O.]

Original Articles.

ASCITES WITH ABDOMINAL TUMORS.

By A. LAPTHORN SMITH, M. D.,

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The short article by Professor Osler in the number of the *Philadelphia Medical Journal* for the 24th. of May, 1902, interested me greatly, for I had almost come to the conclusion since several years that the presence of free fluid in the abdominal cavity was an indication that the tumor accompanying and causing it was malignant. So much so, that three years ago, while visiting Ségond, of Paris, who was operating for some ill-defined growth in the pelvis, I ventured to remark, as soon as the small abdominal incision was made and the fluid poured out, that the tumor would probably be found to be malignant, which it was, being a papilloma of the ovary. In thinking over my own experience I can remember at present about fifteen (there may have been more) in which some growth was found which proved to be malignant or on the borderline of malignancy. The majority of them were papillomata of the ovary, which I look upon as very frequently malignant, although the fact that many of the women recovered and remained well for many years after its thorough removal is somewhat, but not conclusively, against the claim that they were malignant. One case impressed me greatly, a woman, to whom I was called in great haste and who I found sitting up in a chair and gasping for breath. She was already cyanosed, so I at once introduced a very small trocar and drew off nearly two pails of fluid, which not only gave her immediate relief, but also enabled me to discover two large solid tumors, each much larger than a cocoanut. A few days later I removed these solid tumors of the ovary by abdominal incision, but when I tried to draw down the omentum, as I always do before closing the incision, I found it difficult to locate it and quite impossible to draw it down. In fact, it was represented by a mere fringe, like a piece of burned leather, about an inch and a half wide. The pathological examination proved that it was a carcinoma of the ovary, and I have no doubt that the liver was also affected by the same disease, for the woman, after making a speedy recovery from the operation, died three months later without any return of the ascites.

Then, again, in operating for papilloma of the ovary I have found in some cases ascites and the shrunk omentum, and very often an inoperable condition, the cases being malignant and the patients dying a few months afterward, while in others there was no shrinking of the omentum and no ascites and the patients are still alive after many years. When we come to seek for an explanation of the presence of the fluid, it is quite difficult to come to any conclusion. Is the ascites due to mechanical obstruction of the large veins such as we get in enlargement of the liver, or is it due to irri-

tation of the peritoneum by the excretions of the ovary? Why do we get ascites in solid tumors of the ovary, and not in liquid tumors of the same size? I think we may have ascites caused by an abdominal tumor in one or both of two ways: First, the tumor may be solid enough and free enough to rest upon the inferior vena cava and cause obstruction or backpressure sufficient to cause serum to exude through the walls of the veins; or, if the tumor is malignant, it quickly affects the liver by metastasis and blocks the portal circulation, as well as the inferior vena cava passing behind it, causing backpressure and exudation of serum from both the veins of the stomach and intestines, as well as from the inferior vena cava and its branches. This is the explanation of the ascites in the case mentioned by Dr. Osler, in which there was a solid ovarian tumor with a twisted pedicle, allowing blood to be pumped into it, but impeding the outflow, so that the serum was forced through the walls of the veins.

The other explanation is, that there is some irritant poison given off by a diseased ovary, which either increases the secretion of the peritoneal surfaces or closes the mouths of the absorbents, which under normal conditions are able to carry off large quantities of serum in a few hours; for instance, two gallons of normal salt solution, which I have frequently left in the abdomen after removal of a large tumor; or the sudden disappearance of a large thin-walled parovarian cyst by rupture and absorption of the benign fluid, which is quickly excreted by the kidneys, many of which cases are on record. I quite agree with Dr. Osler in the importance of looking for an abdominal tumor in cases of ascites, and I wish that all physicians would follow his example in referring these cases to the abdominal surgeon. Many of my patients with abdominal tumor had quantities of albumin in the urine, which misled their physicians, for in every case the albumin disappeared after removal of the tumor; so much so, indeed, that I never allowed the presence of albumin in the urine to prevent me from removing a tumor from the abdomen. The preliminary tapping two days before the operation has the double advantage of revealing solid bodies which could not otherwise be discovered, and it also prevents collapse during the operation, due to hemorrhage into the azygos and other veins, caused by the sudden withdrawal of their accustomed support.

THE NORMAL THIRD STAGE OF LABOR, WITH
SPECIAL REFERENCE TO ITS MANAGEMENT.*

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Engelmann, in his admirable book on "Labor Among Primitive Peoples," has traced the development of the management of labor from the most untutored folks, and has made some apt comparison of their methods with plans pursued by our ignorant

*Read, by invitation, at the Milwaukee Medical Society, March 25, 1902.

obstetric attendants. In his introduction to the chapter on the third stage he has this to say:

"Labor seems completed with the expulsion of the child, the one act upon which the efforts of the accoucheur and the expectations of the patient have centered, the culmination of hours of suffering and anxiety; both feel as if their work were completed, and but little thought is given by either to the remaining afterbirth which is usually expelled without much suffering to the mother, and, if nature be not interfered with, rarely calls for any exertion on the part of the attendant. The third stage of labor accordingly excites but little interest, and is, I may almost say, unduly neglected." Although the above quotation was written in 1882, I feel the truth of the statement is still present.

Previous to the middle of the nineteenth century the conduct of the third stage was brutal, dangerous and unscientific. The instinct which governed the children of nature was largely, if not entirely, lost, and ignorance replaced the impulses of nature; on the one hand, traction of the cord or indiscriminate manual removal was practised; on the other, neglect was rife as in the instance of Ritgen who left the placenta in the vagina "until the odor was intolerable." It indeed was a welcome change when Dr. Joseph Clark, a Master (1787-1793) of the Dublin Rotunda Hospital, gave the first inkling to a scientific management of the third stage; further impetus was given the suggestion by his successors, and the "Rotunda" deserves the credit as the pioneer of the rational treatment of the third stage. As their method was not broadly promulgated, it attracted little attention abroad. In 1861, after thirteen years of observation, Credé called attention generally to the more sensible management of the placental stage with the result that the barbarous and crude methods were superseded by the method which bears his name. A few years had elapsed when it was observed that Credé's method was not appropriate for all cases; that evil results might follow when prematurely and injudiciously carried out. The danger of complete or partial placental retention, or retention of portions of the membranes, with the result of immediate or secondary post partum hemorrhage, of infection dependent thereon, were ever real. Kabierske and Dohrn, in their several contributions showed the possibilities of these dangers after a long and conscientious trial, and finally relegated the Credé method to appropriate cases only, and strongly advocated an expectant line of conduct, with signal results. Then Ahlfeld modified the expectant treatment in certain particulars which will be brought out in detail later. As a result of the studies of the anatomy and physiology of the normal parturient and puerperal uterus, certain facts have been adduced which permit us to follow in the main the method of Ahlfeld, yet to apply his placental expression at an earlier moment than he recommended, and still not be far from a physiological conduct of the third stage.

To understand the rationale of the physiological management it is necessary to describe very briefly the anatomical and physiological conditions which have a clinical bearing in the third stage. It is un-

necessary to give the references to the facts applied in this meagre description—suffice it to say the information is largely the result of the investigations of uteri removed by Porro operations with placenta *in situ* by Barbour, and the studies of frozen sections by Barbour, Webster, Chiri, Küstner, Bayer, etc., in pregnancy, labor and the puerperum. Pestalozza deserves special mention as the only one who fortunately secured a woman dying in the third stage with parts normal. While the opportunities for studying labor by these means have unfortunately been very limited, the facts deduced have so accorded with clinical experience and observation that they carry much weight and, undoubtedly, as far as they go, are of inestimable value as criteria.

Physiological and anatomical facts.—It is now known that in the course of normal labor the cervix largely loses its gross anatomical features, it apparently, and really does so far as known, becomes continuous with the lower portion of the uterine body, that is the internal os becomes obliterated. Further it is known that the body of the uterus becomes unequally divided into the large upper uterine segment and a smaller portion which with the cervix becomes the lower segment. The upper segment furnishes the expulsive power of the uterus: the lower participates in dilatation and plays a more or less passive role in labor. The line of demarcation between the two segments progressively becomes more marked as labor advances, and develops into the retraction ring or rim which persists for some 24 hours or more after delivery. The upper segment retains its contractility and retractility until involution is completed; however, the placental side does not possess the same power as the rest of the segment—it is partially paralyzed, the paralysis of the placental site of Rokitansky: The lower segment is practically paralyzed at the completion of the second stage, and only slowly regains its quondam form and characteristics. Immediately post partum it is somewhat difficult clearly to outline the cervix by palpation on account of its flaccidity. From the study of one section (Pestalozza) we may assume that the placenta in normal conditions remains adherent until post partum contractions cause separation, then extrusion of the organ. The membranes, however, are largely loosened from the lower segment in the process of the formation of the bag of waters. As soon as the uterus has regained its strength and recovered from the marked retraction following the second stage, an interval of 5-15 minutes, it renews its activity—the placenta is loosened from its site, slips through the retraction ring, dragging the membranes after it, and distends the flaccid lower segment and vagina. Two possibilities of placental mechanism may occur—one, the fetal surface is out, that is, the membranes are inverted, or may pass down with the maternal surface out; in either case a border may present or the full surface be most dependent—whichever happens depends chiefly on the location of the placental site and degree of separation of the membranes previous to its descent, and, too, if there be interference with the stage. Placental delivery from the upper segment is brought about by uterine action, but its

further progress is dependent upon abdominal pressure or artificial expression. It is known from common experience that abdominal pressure is lowered the first hours post partum. Duncan and others have given us information on the subject. The ability of the abdominal walls to expel the placenta is subordinate to three factors, the tenseness of the abdominal walls, lack of resistance on the part of the pelvic floor, the closeness of the fit between uterus and pelvic brim. In multiparæ with increasing laxness of the abdominal parietes the power is minimum—in primiparæ (also many multiparæ) with intact perineum the resistance may be sufficient to prevent expulsion of the afterbirth.

Clinical observation.—The anatomical findings enumerated have been practically corroborations of facts adduced from clinical investigation. The child has been expelled, the mother, relieved of her difficult task, acquires a peace in sharp contrast to her active and painful endeavors of the second stage. The uterus is found contracted, with a firmness not previously elicited; its fundus is in the neighborhood of the midpoint between the pubes and umbilicus, or as high as the navel; usually the uterus is laterally posed, and more frequently to the right. After an interval of quiet the uterine activity is renewed—the afterpains—which recur every two to five minutes. Eventually the placenta is expelled from the upper segment and rests within the lower segment and vagina. As soon as this occurs, certain signs give evidence of the fact, namely: (1) The uterus rises, that is, the placenta, on entering the lower segment and vagina, distends them, the upper segment which previously had been depressed by abdominal pressure rises five to eight centimeters and caps the lower parturient tract with its new contents; the fundus now will be on a full level with the umbilicus or even considerably above it. (2) As the upper segment has lost its contents, it is smaller, rounder and has acquired a still firmer consistence. (3) Earlier only a vague resistance was demonstrable by palpation over the pubes—now the lower segment with its contained placenta may be palpable, sometimes a distinct sulcus is visible (the bladder being empty) an inch or two above the symphysis. (4) If the slack in the funis had been removed from the vagina immediately post partum, it will be noted that at the moment the fundus ascends in the abdomen the cord will advance. These four signs offer a distinct and positive line of demarcation from Credé expression, on the one hand, and spontaneous delivery or artificial placental expression, on the other. There is one condition which may cause some momentary confusion with the exit of the placenta from the upper segment—retained post partum hemorrhage. In this case also the fundus may rise from uterine distention, but the uterus becomes larger, less firm, also, if the placenta be still attached to its site, especially if the latter be at or near the fundus, the cord may recede. The pulse will give indications of the hemorrhage if it be of any moment, and post partum hemorrhage rarely is entirely concealed—external evidence of blood loss will be present.

The Management.

The various methods of treatment of the past must be enumerated to grasp adequately the principles of rational management of the third stage. It is unnecessary to go further than to mention that previous to 1848 to 1861 traction on the cord (always inadmissible) and manual removal were the only means of delivering the placenta. The former was distinctly bad in all cases, the latter too dangerous for routine practice, and many obstetrical and gynecological complications were traced to their use, so it was an innovation when Clark, of Dublin, and Credé inaugurated a more sensible procedure—the expulsion of the placenta by pressure from above.

At the present moment there are practically four methods of treatment. In the order of their introduction to the profession they are, Credé (1861), Dohrn (1880-81), Kabierske (1881), and Ahlfeld (1888). Very briefly I will give the salient features of these various methods.

Credé.—The cord is severed: With the third to fifth contraction the uterus is grasped by the hand, four fingers posteriorly and thumb anteriorly, the fundus raised until the uterine axis is perpendicular to the brim, then at the height of a contraction the uterus is compressed, then depressed towards the brim. Usually the uterus immediately rises to its original height when the placenta is born and the uterus is released—if not, it is gently raised. In Credé's clinic of 2000 labors 1979 placenta were expelled within an average time of 4 to 5 minutes, of these 87 were postponed until 10 minutes or more had elapsed for various extraneous reasons, 21 had manual removals. Credé's, then, means forcible separation of the placenta in the majority of instances, and then placental expression.

Kabierske.—His method is purely expectant. The uterus is occasionally palpated to ascertain its height, consistence and form, no manipulations are practised, the bladder and rectum are emptied, if necessary; hours elapse until the placenta is born. Kabierske found 24% are born within the half hour, 20% within the second half hour, 25% in the second hour, 11% in the third hour, with a gradual decline until the twelfth hour, when 1% was delivered. Exceptionally, however, the placenta was delivered by traction on the cord and pressure when it was lying loosely in the vagina—this was done in hemorrhage, especially in tears of the cervix, etc.

Dohrn.—This author received his method from Hildebrandt, his predecessor in the Königsberg clinic. The cord is severed, the woman is placed on her back, the genitals cleansed, clean linen placed under her buttocks, the thighs tightly apposed, height of uterus noted, midwife attends to the baby, remains in vicinity of the lying-in woman the next hours, but the uterus was not to be palpated—the woman to notify the attendant if she bleeds, who only then will examine cloth under the vulva and uterus. In this way two hours pass by, and generally then the woman will feel a downward pressure; thereupon a vessel is placed under the woman, she is directed to press downward and the placenta is born, with the membranes following directly—if they do not they are gently extracted. If at the termination of

two hours the placenta is not born, it is expelled by Credé, but the necessity seldom is present. Undoubtedly most of these so-called Credés were in reality placental expressions.

Ahlfeld.—The cord is tied, and laid over one groin the woman is washed with disinfectants, lacerations are looked for, and if they bleed are repaired at once, otherwise are left until after the placental stage, soiled linen removed and fresh applied to the person and bed, legs are closely apposed, the woman well covered; in about five minutes the covering is raised, the thighs separated and the presence of hemorrhage looked for; if there is no bleeding, the covering is replaced, from time to time this is repeated; if any blood should stain the clothes under the woman, a fresh portion is placed under her so further blood losses may be more easily recognized. In the course of one and a half hours the bleeding should not be sufficient to require a change in the cloth. At the end of this time the woman is catheterized, the uterus is brought to the midline and the placenta is expelled from the vagina by a grip analagous to that of Credé—the upper segment is only depressed into the lower. During the entire wait the pulse must be frequently felt and any change noted. If bleeding should occur, massage must be practised—if contraction stops hemorrhage, a further pursuit of the method may be carried out—otherwise Credé must be used. The assumption of Ahlfeld is that the first afterpain separates the placenta and subsequent contractions force the placenta downward—within the half hour its furthest descent is reached by uterine action, and within the next hour the membranes are completely separated. Ahlfeld holds that every uterine manipulation is inadmissible, for it disturbs the mechanism, that contractions prematurely produced cause hemorrhage.

In substance such are the various modes of conducting the third stage. Which is the right one? Each has its place. Among primitive peoples, or peasant women, who are strong, active and healthy, it may be perfectly permissible to follow the suggestions of Kabierske and leave the third stage strictly to nature, relying on the physiological function of the uterus and abdomen. But among our society women, enervated by high living, late hours, insufficient exercise; our women outside the pale of “society” who cannot have the rest and exercise in the open air that nature demands, who are compelled to work at tasks beyond their strength; the women of the tenement who have unhygienic surroundings and poor food; all these, with their frequent uterine diseases produced by gonorrhea or nonspecific causes, are seriously handicapped in the race with their lowly sisters. From observation in dispensary work, in private and in consultation practice, I am more and more convinced that anomalies of the third stage are to be feared as much as disturbances in the second stage and perhaps more. Because the third stage is rendered less normal, we cannot rightly follow the purely expectant plan in practice—we must adopt a compromise between the purely expectant management and the procedure of Credé. We must permit physiological processes consistently to pro-

ceed as far as possible, then we ought to enter and do our part. Practically we cannot lay down rules for all cases, each case must be governed by the conditions present and our best judgment must be applied in each individual instance. Still, there is a possibility of having a method which will be the plan in a large proportion of labors, deduced from the methods given above.

In discussing the relative merits of the several methods, too much reliance cannot be placed on the figures and deductions presented by their respective advocates, the hygienic surroundings, nutrition, climate, the physical well-being of the individuals must be weighed. It must be remembered that Dohrn’s and Ahlfeld’s patients were peasant women, who, while perhaps they did not have adequate nourishment, were not subjected to the devitalizing influences of the tenement house; largely the women worked in the open air. On the other hand, the patients in the Sloane Maternity, to whose statistics reference will be made, had largely not only bad food, but tenement life with the vicious air and general unsanitary surroundings.

Dohrn showed in two series of 1000 cases each that by Credé there were resulting hemorrhages 65 times, and 126 instances of retention of the membranes; by spontaneous delivery there were respectively only 35 and 41 cases. He also gives instructive results in a study of the duration of the third stage in its influence on hemorrhage whether conducted by Credé or expectantly.

Time.	Methods.	Number of Cases.	Percentage of Hemorrhages.
1-5 min.	Credé	206	10%
	Spont	29	17%
6-10 min.	Credé	337	6%
	Spont	45	9%
11-15 min.	Credé	355	5%
	Spont	128	5%
16-30 min.	Credé	74	4%
	Spont	368	2%
31 & Over	Credé	28	3%
	Spont	430	3%

Ahlfeld gives a table which offers corroboratory proof of Dohrn’s investigation.

Time.	Number of cases.	Percentage.	Amount of hemorrhage.
0-5 minutes	49	1.6%	441 gm.
6-14 “	40	1.3%	637 gm.
15-29 “	158	5.2%	759 gm.
30-44 “	186	6.1%	836 gm.
45-60 “	215	7.9%	755 gm.
61-90 “	1674	55.0%	402 gm.
91-120 “	712	23.0%	327 gm.
and over.			

The figures of Dohrn show that, whether the purely expectant plan were followed or the aggressive method of Credé were pursued, the shorter the placental stage, the higher was the percentage of hemorrhages; this is due to interference with full retraction of the uterus. Ahlfeld’s figures show that blood losses increase up to forty-five minutes from the birth of the child, then the amount decreases. I feel that the placenta is prematurely expelled spontaneously on account of the blood accumulations behind the placenta which, in being expelled from the upper segment, drive the placenta before it. I hold it is an error to argue that, as does Tucker, spontaneous expulsion of the placenta is the cause of hemorrhage, but rather its premature delivery

is the sequence of blood loss. Ahlfeld states that since he has practised his method he rarely encounters true adhesion or retention of the placenta. "True atony occurs with the greatest infrequency;" that, "after Credé the uterus becomes atonic, and hemorrhages are apt to follow;" also aberrant forms of placental mechanism are prone to occur.

Tucker, of Sloane, recommends Credé, in which the manipulation is carried out 15 to 20 minutes after the delivery of the child. Credé was used in 95% of the cases, 5% are mentioned as spontaneously expelled, yet half of these were delivered by suprapubic pressure. His analysis only included spontaneous cases occurring within 20 minutes, for all placentæ are expressed within that time if they had not come away of themselves. Under such circumstances a comparison of results between 149 spontaneous expulsions and 2561 Credé cases does not do justice to a conservative handling of the third stage. Yet it should be stated that Tucker's work is one of the most elaborate records extant of hemorrhage in or following the third stage. However, he shows that Credé manipulations do produce abnormal placental mechanism in 6 to 10% of labors. He shows that the normal average blood loss for Credé and spontaneous delivery is respectively 7.4 $\bar{5}$ and 5.7 $\bar{5}$. He further makes out that, following spontaneous delivery of the placenta within 20 minutes, hemorrhages are more frequent and larger in amount than by Credé, but for reasons previously given his deductions are fallacious, and offer no comparison between Credé and true (average) spontaneous placental deliveries.

Management to Be Recommended.

During the expulsion of the child's trunk an assistant or nurse should lightly place the hand on the fundus and follow it down, and should keep the hand there. The eyes of the child may be cleansed with boric acid and its mouth cleared of mucus. When the cord has ceased pulsating, or pulsations at least have become weak, it may be ligated and severed, a ligature be placed an inch or so from the umbilicus, and another as close to the vulva as possible. If a coil of funis is suspected to be within the parturient tract, it may be gently drawn out, this second tape serves as an index of the advancement of the cord. Directly after cutting the cord, or even before, the woman should be turned on her back if the second stage were conducted on the side. During the turning the fundus must be supported. The object of having the third stage managed with the woman recumbent is to have abdominal pressure disturbed as little as possible. Van der Wacker has shown that a woman in the semiprone position has an intra-abdominal pressure of almost nil, so danger of aspiration of air is present, also it is more convenient to conduct this period with the woman on her back. The child is disposed of. The buttocks, vulva, etc., are cleaned with antiseptics. Fresh linen is placed under her, and a sterile pad is applied to the vulva. The cord is placed over one groin. The thighs are closely apposed, this keeps air from the vagina, promotes retention and clotting of blood. From time to time the pulse is noted, observation of the

escape of blood taken, the hand resting lightly on the uterus will determine the condition of the organ, but no massage is to be practised. In the course of ten, twenty or thirty minutes, or exceptionally an hour or more, the fundus will rise, the cord will advance, the globular form of the uterus will be observed, and perhaps the placenta may be palpated externally in the lower segment. Now, the placenta is outside the uterus—its further advance is to come from abdominal pressure which is an uncertain factor. As it is advisable to have the woman placed comfortably in bed as soon as is consistently possible, it is proper to expel the placenta—placental expression is performed in contradistinction to Credé.

Technique.—The vulva and vestibule are rendered sterile, and the bladder is catheterized unless positive that it is empty. The uterus then will tend to take a position in the midline, if not, it is brought there. Four fingers pass behind the uterus, raise it until its long axis is perpendicular to the plane of the brim. When the uterus has reached the acme of its hardness the thumb is flexed, thus permitting the hand firmly to hold the uterus—then with a downward movement the placenta is forced out by the upper segment telescoping the lower, the placenta then will be received into the hand awaiting it. If this procedure is not hurriedly carried out, the membranes will slowly escape. If on account of thin membranes there is a tendency for them to tear, it is a useful expedient to twist them into a cord; this will prevent tearing and will hasten separation; also, often it is advantageous to relax the hold on the uterus slightly to permit recoil, whereby separation is expedited.

If there be any tendency for the uterus to relax, especially if blood appears externally or is retained within the uterine cavity, then and only then is massage indicated; only too often premature and ill advised massage has been the cause of retained placenta. Credé's should have a small place in the treatment of the third stage; if there be some uterine relaxation with hemorrhage after a contraction, and massage does not hold the uterus contracted and stop hemorrhage, Credé may be appropriately carried out. It is not within the scope of this paper to outline the indication for Credé in an abnormal third stage, so further discussion would be out of place at this time.

Ergot.—In a strictly normal course of labor I deem it unnecessary to exhibit ergot post partum; if there be any undue blood loss, undue tendency to uterine relaxation, it may be given and the attendant will be on the safe side, but it should not be given before the placenta is born unless there be positive indicatives that one can expel the placenta before the ergot can act, that is within ten or fifteen minutes. Broadly, it is an obstetrical error to give ergot before the uterus is empty.

As lacerations are a pathological sequence of labor I have not dwelt upon them.

After the birth of the placenta the final toilet is carried out—an antiseptic pad is applied to the vulva, and a binder is placed about the abdomen—

and the woman is made comfortable in bed. In conclusion I would state it is my positive conviction that an attendant should not leave his patient, however normal her labor was or favorable her condition post partum may be, until at least a full hour has elapsed from the birth of the secundines.

- Engelmann: Labor Among Primitive Peoples, 1884, Chapter 3.
 Hardy & McClintock, Practical Observations on Midwifery, 1848.
 Credé: Klinische Vorträge über Geburtshilfe, 1853, pp. 598-602.
 Credé: Ueber die zweckmässigste Methode der Entfernung der Nachgeburt, Archiv für Gynäkologie, Bd. XVII, Heft 2.
 Kabierske: Beitrag zur Frage über die Behandlung der Nachgeburtperiode, Centralblatt für Gynäkologie, 1881, No. 7.
 Dohrn: Zur Behandlung der Nachgeburtzeit, Deutsche medicinische Wochenschrift 1883, No. 39.
 Ahlfeld: Abwartende Methode oder Credéischer Handgriff? Leipzig 1888.
 Barbour: Anatomy of Labor and its Clinical Bearings, 1899.
 Webster: Researches in Female Pelvic Anatomy.
 Duncan: On the Retentive Power of the Abdomen: Obstetric Researches, p. 418.
 Tucker: Birth of the Secundines, American Gyn. & Obs. Jour. 1898, vol. XII, Nos. 5 & 6.

MENTAL DEFECTIVES: THEIR CLASSIFICATION AND TRAINING.*

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The true meaning of the word educate may be found in its utmost clarity in the training of defectives. Here the artificiality and superimpositions of the "cram" system being absolutely impossible, the teacher is literally forced into drawing out what is within and developing and building upon that alone; is compelled to study, to originate and to fit individualized work to the individual, because the defective child cannot be fitted into a system, there being so many weak parts he would simply fall to pieces under the operation. Thus, experimentation in the education of the abnormal, begun early in the nineteenth century, has been silently influencing that of the normal, demonstrating, through successive decades, flaws in a much vaunted educational system, by and through which the mental powers of the pupil have too often become enfeebled, and degeneration or nervous break-down has reduced him to the status of his abnormal brother. Under the stress of such failures the world is fast coming to realize that an acquaintance with a multitudinous number of facts does not constitute culture; that the effect of such study is to paralyze rather than to energize thought; that all knowledge is not bound up in books; furthermore, that merely stored-up knowledge, unapplied or misapplied, may even be a disadvantage to its possessor. Already, while watching those who can only "learn by doing," the schools begin, for a small portion of the day at least, to close their text-books, to open their workshops, and to slacken the chain of rigid examinations, while the eager cry of minds released from tension is "not what I have but what I do is my kingdom."

Valentine Haüy, de l'Epée and Itard might to-day clasp hands with Pestalozzi and Fröbel in mutual congratulation over this fruit of their labors, where-

in Itard finds the actual fulfilment of the hope thus so modestly expressed:

"If it were possible that, in endeavoring to solve the simple question of the education of idiots, we had found terms precise enough, that it were only necessary to generalize them to obtain a formula applicable to universal education: then, not only would we in our humble sphere have rendered some little service, but we would besides have prepared the elements for a method of physiological education for mankind."

The way prepared, like the word spoken in season, how good it is! How necessary to all growth! This is the gift of the nineteenth to the twentieth century, and the crowning of Itard's work is greater than that accorded him by the French Academy, for the reclaiming of the wild boy of Aveyron in the past means release from the slavery of "cram" for the youth of the future.

From this dates the physiological education developed and systematized by Seguin in Paris, practically applied by Guggenbühl in Switzerland, Saegert in Germany, Reed in England and Howe in America, culminating in the cultivation of the muscular sense until "The working hand makes strong the working brain" becomes to-day the watchword in the training of mental defectives.

An interesting point to note is that Itard in his disappointment in his savage failed at first to see that he was dealing with an idiot. He in common with Pinel and others held to the incurability of idiocy, an opinion confirmed after a century of experimentation, and further elucidated and extended in the classification now universally accepted in America, which places in four divisions the feeble-minded, thus:

The Idiot:

- (a) Apathic;
- (b) Excitable;

Unimprovable, to whom nothing can be given but asylum care.

The Idio-Imbecile:

Improvable in slight degree.

The Imbecile:

- (a) High-grade;
- (b) Middle-grade;
- (c) Low-grade;

Trainable in various lines.

The Moral Imbecile:

- (a) High-grade;
- (b) Middle-grade;
- (c) Low-grade;

Amoral, or lacking completely the moral sense. Trainable only under custodial care.

Herein we find recognized, gathered and massed as a race distinct and set apart the feeble-minded—a title comprehensive enough to cover every phase of mental weakness from the sluggish inert to the excitable erratic. That each may go to his own place and receive that which is best suited to his needs, it retires into asylum the unimprovable idiot—the lowest type of abnormality—and with him his brother, the idio-imbecile, capable only of improvement sufficient to aid in his care. It next assigns to teachers the trainable imbecile—mental or moral

* Read at the International Congress for the Welfare and Protection of Children, Guildhall, London, England, July 15, 1902.

—in whatsoever grade, be it low, middle or high, which determines his limited sphere in life and prepares him for it. This is effected by no ironclad rule; on the contrary, as the comfort of all—both teachers and pupils—depends upon an equality of grading, there is ample opportunity for easy transition as improvement or deterioration may require.

A glance at the program of a large institution will show this classification in working detail.

The Training Department, in its several divisions—School, Industrial and Manual—aims to give mental, moral and physical training as well as permanent occupation to “children” of all ages, from early youth to maturity.

The School, which prepares for and aids in the work of the others, provides:

First. Separate schools for the low-grade, middle-grade and high-grade; kindergartens for the young; custodial classes for the incorrigible or the incompetent, and evening classes and Sunday-schools for all.

Second. Special classes, where all who can be benefited may receive training in certain lines.

The training is in no sense abstract. In each school there is always the one definite aim presented—that the child benefited by training may be enabled by his work to benefit the community into which he is growing, and where there is always work to be found for the ready worker.

To low-grades, who, with dulled sight and hearing, are incapable of consecutive thinking, to whom letters and figures are meaningless signs; the chief, one might almost say the only, avenue of development must be through the muscular sense. By means of physical exercises which arouse, and of occupations which interest, the arm, the hand and the fingers may be enticed into movements which, if co-ordinated and persisted in, may in time produce the mental impression. The ordinary household occupations, lifting weights, drawing, pulling, stretching, rubbing and climbing alternate with the quieter occupations, giving hand and finger movement. The care of the schoolroom and plants, and the polishing of floors and windows are therefore as distinctly aids in the work as are the tying and winding of strips for carpet weaving, the folding, knitting, knotting and twisting of fiber or straw braiding, which, in these schools, form the preparation for the simplest menial service for house, farm or garden.

With middle-grade children we find the slow mental processes, of which alone they are capable, best stimulated by, and must be continually linked with, material objects. This is particularly to be noted in the use of books and in the labored acquirement of the “three R’s,” as contrasted with the more rapid advance by means of drawing and modeling in chalk, clay or cardboard, or the weaving of strips of wool or of woodshaving. Results of daily lessons with these materials begin soon to accumulate in the form of useful articles—baskets, wall-pockets, portfolios, blotters, etc.—and then the moral and social qualities are stimulated by utilizing them in the house, or for gifts at the different seasons. Growing powers of observation,

perception and reproduction find satisfaction in the more permanent materials of willow, rope, rattan or wood; and, later, as basket, hammock or mat-makers, carpenters or painters, these children go out from schools to contribute their quota to the general economy. Capacity for very limited responsibility and for independent works is also evidenced, and we are therefore able to draw from this grade quite efficient aids for farm and household service.

High-grade school-rooms present much the same appearance as those for normal children. Classes are busy with books and black-boards, drawing maps and working examples. Abstracts of subjects are being made or original articles written for our little school paper. Judgment and memory, power of associating, comparing and deducing are here; feeble, it is true, but they are here and trainable, and in proportion to the broader intelligence just so must methods broaden. Books, therefore, are the means of development in these schools in the same proportion that material objects are in the others. The study of minerals, of plant and animal life are emphasized in daily visits to the object room, where subjects carefully prepared for them are presented. Geography, history and the noting of current events further the enjoyment and appreciation of evenings in the library. Neatness, accuracy and exactness are enforced in number calculations and mechanical drawing; freedom and control of hand and arm in the exercises of free-hand drawing. The importance of both is realized in the constructive work, the joinery and the wood-carving of the sloyd room, just as the power of rapid sight-reading is found of value in the music classes, and working thus together these two divisions of the school form each the supplement or the complement of the other. This same interdependence and unity of purpose is discernible also between the school and the other branches of the training department.

The industrial division early gives—even during the school period—the needed stimulus of healthful employment and tests ability, while the school, aiming at a rounded development, yet prepares and sends out the child for such apprenticeship as capacity during training has indicated as most suitable. The varied requirements of a large establishment forming a distinct industrial division offer work for equally varied capacity. Thus farm and garden, bakery, kitchens, dining-rooms and dormitories, laundry and clothes rooms have all their busy apprentices and trained workers, while others are aids in the care of the helpless in nursery, hospital or asylum wards.

The manual division comprises all those occupations in which the work of the hand developing brain power continues to be guided by it in making permanent and regular contribution to the resources of the institution. It includes the knitting, chair caning and mat making of the custodial buildings, together with the tailor and shoe shops, the carpenter and paint shops, the mattress and hammock shops, the regular job work which Sloyd begins to build up, and the work of the various sewing rooms.

The schools prepare for all these—directly or indirectly—chiefly its pupils of high and middle grade.

Music, early recognized in the work as an invaluable agent, both active and passive, has grown into a distinct school, with classes well organized on various lines—a band, an orchestra, a special chorus class in sight-reading, and other singing classes for younger children.

Occupation and exercise should alternate with periods of absolute quiet and rest. A regular life free from unhealthy excitement being most essential to nervous constitutions. Yet, not losing sight of the fact that we are dealing with a perpetual childhood to which amusement is also essential, every season has its special fête, while birthday feasts, weekly dances, athletic sports and theatrical entertainments fill out the year.

The custodial department makes provision for a class either too stupid to follow, or too erratic and excitable to submit to the ordinary routine of the training department. These may, however, under supervision and constant surveillance be brought to contribute to household economy in the manufacture of shawls, hats, caps, mats and other useful articles. In these houses of prevention the moral imbecile finds the only home possible to him and his shelter from crime and all its attendant penalties. The victim of heredity and the slave of circumstance, upon his neck must be found the sign of perpetual serfdom, lightened by every amelioration that amusement and rest periods may bring, yet toil, regular and unremitting, is his only salvation and safeguard; for hands once idle a cunning intelligence, truly satanic—the devil possessing the irresponsible—will surely devise some plan of ill.

The benefits of this classification are seen in that the child is quickly and almost unerringly placed in an atmosphere best suited to its needs—the family unhesitatingly informed as to his present condition and probable future, and the public more easily enlightened as to the different demands which abnormality makes, the possibility of ameliorating these demands by training for self-support, and the urgent need of sequestration as a means of protection to society from the results of criminal tendencies or fateful hereditary transmission.

The feebly gifted or backward children, whose defect may be due to unhealthful environment or to causes purely physical, are not necessarily included in this category, although liable through neglect and consequent deterioration to become so, especially should complications ensue from epileptic seizures. Then the question arises: Is the home or the school more desirable? This, the individual peculiarities, means and opportunities must determine. If the requirements are varied, certainly the cases are exceptional that can provide such in the family, in conjunction with suitable companionship and a regular life. It is an admitted fact in education from kindergarten to university that one's best powers are brought out only among one's peers, and the imbecile out in the world is always lonely and alone. Even those trained and sent out from the schools often seek to come back, saying, "Some-

how they don't understand me. People don't want me. I can't get along."

There is indeed among all leaders in the work a consensus which regards the return of the imbecile to the world as most inexpedient. First, for the unfortunate himself, whose happiness is best found among his fellows and in work pursued on lines adapted to his needs. He misses the companionship and the amusements of his community as much as the guiding hand, the discipline and the sympathetic control which is continually on the alert to protect him from harming himself or his brother. Without these sustaining props, weak wills simply cannot pursue regular employment, and successful competition with normal labor is the exception, not the rule.

Again, society is suffering quite as much from the irresponsible as from the criminal element in its midst. Indeed, is not criminology proving that this last is but a lower stage of degeneration? The amoral imbecile becoming brutish, suddenly, on occasion, betrays the fangs of the wolf or the spring of the tiger; or, strained to tension, in an access of delusional insanity, commits first a deed which shocks the world, and then walks in a state of ecstatic egotism to what he deems a martyr's death. How often it is proven that an innocent, careless fool can reck more harm than a knave, who may be deterred by at least a cowardly fear of consequences. Is it wise for us, then, to pass unheedingly these danger-signals which we read all along the pathway of history—not only those which shock nations, but the tragedies which darken communities or extinguish the light of homes?

Let us look for a moment at one, which may stand for a type of the many, differing only in incident and location:

The trial in Philadelphia of Samuel Henderson, aged fifteen years, for the murder of Percy Lockyer, aged five, makes a valuable addition to the annals of criminology and sociology, as showing the possibility of crime absolutely motiveless beyond the momentary impulse of a nerve storm and the danger to society of an uncontrolled, irresponsible element in its midst. The extreme youth of both appeals to one not less than the sense that each was, in a measure, the victim of ignorance and of circumstance.

The boy Henderson, like so many of his class, is a series of contradictions: He is tender and cruel, ingenious and crafty, phlegmatic and nervous, unfeeling yet affectionate; he is open, frank, artless, secretive, shy, deceitful, truthful in many ways, but also an accomplished liar. Atavism and environment combine to form a moral imbecile, in whom the moral sense is obstructed or altogether absent. One of his chief characteristics was fondness for animals, babies and young children, and it was remarked on the afternoon of the tragedy how carefully he carried the little Percy on his shoulder across the muddy fields to the playground in the wood, from which later he returned alone. When search was made for the missing child he denied, when first interrogated, any knowledge of him or his whereabouts, but afterward, revealing the imbecile

peculiarity in his susceptibility to suggestion, he was finally led to a confession of the deed and to a narration of the circumstances leading to it. How that playing "Wild West Show"—his parents had travelled with Buffalo Bill—the child ran against his knife and, as he expressed it, "just stretched, and said nothink." Then in sudden terror he stabbed him again and again, dragged the body into the stream, concealed it under rocks and ran home, where he took up his evening duties with the same indifference which he displayed later in the court room when a prisoner at the bar.

With a family-history of neurosis on both sides for generations, this boy exhibited all the stigmata of imbecility, yet there were not found wanting many experts to testify as to his entire sanity, with no signs of imbecility, and no evidence why he should be considered irresponsible. This, in full view and presence of the malformed head, drooling mouth and idiotic grin of the boy who leered from the dock even when the verdict was rendered.

None but those acutally engaged in the work can comprehend the eccentricities, the vagaries, the thousand and one contradictions and the infinite phases of abnormality that shade off and merge so as to render difficult even a broad diagnosis after months of careful observation.

It is not surprising, therefore, that it was impossible for these experts—mainly neurologists—to accept as an imbecile a healthy, happy, careless boy, who, within six years of his majority, laughs and weeps many times a day without cause, who, finding in little children his dearest playfellows, could calmly recite the murder of one, while shrinking at the thought of the death of a pet squirrel which for him to kill was an impossible thing; and who, indifferent to the loss of home and friends, would yet shed copious tears over the torn dress of a paper doll. The jury, however, accepted the argument of irresponsibility made by the defence, but there being no statute recognizing imbecility, brought in a verdict of murder in the second degree which consigned him to the penitentiary. By this the state was preserved from a judicial murder and society for a while from an irresponsible. Early recognition and sequestration would have prevented the murder of one child, and the detention of the other in an atmosphere which will simply foster degeneration. The penitentiary is for him but an advanced training-school for vice, from which, after a term of years, he goes out branded, with no other inclination, probably with no other resource, but to repeat his former experience, being now in ten-fold degree a menace to the social welfare.

Another case shows yet another phase of degeneration, which, if not so tragic, is perhaps even more far-reaching in its influence for evil:

A physician, rich, handsome, cultured, of esthetic tastes, a graduate of one of the most prominent medical colleges in America, made a pronounced hit as a specialist. Enjoying for some years phenomenal success, wine and women proved his bane, and he sank lower and lower. His excesses no longer tolerated at home, he drifted from capital to

capital in Europe, and finally established himself in Japan with a harem. With an appetite still unsatisfied, he exhibited new phases of moral degeneration, causing his body to be tattooed with wonderful skill, every picture a work of art. Thus his back bore a huge dragon, the shading of each scale showing perfection of detail; this, on revisiting America, with the utmost vanity he shamelessly exposed. Returning to Japan, he bought a performing bear and wandered from place to place clad in the garb of a *hinin*, exhibiting himself, his bear and his harem, and distributing photographs of each and all in endless variety. This past-master in vice, shocking both Europe and America, and astounding even Japan, next hires a squad of Japanese boys, who, attired in full uniform, are trained in military exercises. To these are opposed an equal number of monkeys dressed as Chinese soldiers, and the war of China and Japan is constantly renewed for the entertainment of himself and his harem, who watch in ecstasy of delight the sufferings of the poor brutes. Rewards are offered, and the more bloody the contest and the greater the atrocities, the more intense is the gratification.

Not only from the tragedies and monstrosities of degeneration does society need protection, but from its certain and appalling increase. Statistics, though imperfect yet, prove that nothing clings so persistently—is so certain of transmission—as mental defect. A literal realization of the sowing of dragon's teeth is the record of the so-called Tribe of Ishmael, in which within half a century were produced some 5000 degenerates, the offspring of one neurotic man.

Who, in the face of all this, shall fail to see that mercy, pity and the cry of humanity and self-defence alike, call for legislation which shall forbid the perpetuation of evil and the contamination of pure stock?

Much has been done to redeem and raise to higher planes by training, but much remains to be done; the establishment of separate asylums for the helpless idiots, idio-imbeciles and epileptics now burdening the training schools; legislative enactments providing for the separation of abnormal from normal children, and requiring their assignment to schools for special training; the permanent sequestration, *under conditions dictated by science* forbidding increase of those adjudged unfit for the duties of parenthood and citizenship; the opening of reservations and colonies to which may be transferred those trained in the various institutions, thus relieving overcrowded conditions, while giving a stimulus to training and also providing permanent homes where trained imbeciles may pursue their various vocations under new and more satisfactory conditions.

These are some considerations for thoughtful legislators, for it is to the law-makers in all lands that we must now look, lest the work, having attained a certain success in one century, should in another, through lack of protection and encouragement, fail to go forward.

A CASE OF X-RAY DERMATOSIS.

By LINNAEUS H. PRINCE, M. D.,
of Philadelphia.

Demonstrator of Morbid Anatomy, Jefferson Medical College;
Assistant Demonstrator of Morbid Histology in the Jefferson Medical College; Assistant Pathologist Philadelphia (Blockley) Hospital; Late Director of Laboratories, Friends' Asylum for the Insane.

In presenting this case it is my desire to record a condition which has been under observation for a period of years. Inasmuch as the afflicted member is attached to my own person, I think there can be eliminated a certain small amount of error, which is of necessity present when one depends upon the statements of a second party.

The first attack occurred about six months after I assumed charge of the X-ray apparatus in the skiagraphic laboratory of the Jefferson Medical College Hospital, about November, 1896. This was in the days of low vacuum tubes and before the period of coils of the best design for the purpose of exciting Crooks tubes. Then, owing to great difficulty in securing tubes in sufficient number, I was compelled to have recourse to tubes long before abandoned. I also used tubes made and introduced by Messrs. Queen & Co., which seemed to me to be the very best obtainable at that time. Because of their inability to supply all demands I not infrequently used tubes of this make in which the vacua had been much reduced by repeated use. My examinations were more numerous with the fluoroscope than by sensitized plates, thus necessitating a closer proximity of the left (and afflicted) hand to the tube.

The first evidence of pathological alteration was an increasing redness which gradually reached a dark red, but never purplish hue. This discoloration was associated with some swelling of a rather firm character. The tissue did not seem to be edematous, nor was there at any time the slightest trace of pain or discomfort. There seemed to be a mere sensation of fulness when for any reason my attention was especially directed toward the hand. This condition extended over the member from finger tips to wrist-joint. There was no loss of hair or desquamation of dermal epithelium; if the latter condition was present, it was so slight as to escape notice. Without treatment the condition left as it came, that is, hardly noticeable. It had entirely disappeared within one month.

The second attack, occurring about five months later, was a repetition of the first, with the exception of desquamation, which was marked, and, as regards time, the condition was my close companion for two months. I noticed, along with this attack, a slightly increased brittleness in the nails. This was but a transient condition and was possibly not the result of the influence of the rays.

The third, and most important, of these attacks began in March of 1898 and continued uninterruptedly to the present. Its onset was identical in every respect with the previous two attacks and was disregarded because of the favorable termination of preceding attacks. The diffuse redness, slight swelling and painless condition were present, and lasted until late in the fall, when I first noticed a

conspicuous brittleness in the nails, becoming so marked that the slightest blow would knock off a piece of the nail and, in addition, the beginning formation of longitudinal ridges near the nail roots. The ridge formation developed along the nail in straight lines until it reached the free edges, when splitting occurred at the terminus of each ridge. The discomfort of these ungual alterations could only be avoided by keeping the nails closely cut. I succeeded in relieving this state of affairs by stripping the thickened subungual epidermis and allowing it to remain attached to the nail on its under-surface. There remain now, as a result of this treatment, two slight fissures in the nail of the ring-finger. There has been a tendency to broadening at the free edge, together with slight thickening and ridge formation, which does not now terminate in splitting.

While, as previously noted, the change was universal from wrist to finger tips, with the lapse of time the lesion disappeared entirely from the back of the hand and exists now only on the dorsum of the fingers.

The appearance of the area is modified by many external influences. Thus, temperature and prolonged contact with water produce the most conspicuous, though possibly transient, changes. Soaps used for toilet purposes likewise exert an influence, in proportion as the soap decreases in its standard of purity. The value of treatment will be noted below.

The reddened appearance is most marked in warm weather. During the summer months the skin is usually more discolored and swollen than in winter. In the latter period the condition is one of dryness with desquamation and every evidence of a tendency to fibrosis. In addition to the condition just mentioned, there are small points of wart formation and circumscribed areas (1 mm. or less) of advanced keritinization, seen more particularly over the distal phalanges. A deeply seated red mottling is also present, while at the root of each nail the tissues are markedly fibrous, and, in order to avoid fissuring, frequent trimming is necessary. As much as 0.5 mm. can be removed at one cut. Quite recently thick layers of epiderm (?) separate at this point and as much as 0.5 cm. sq. of this tissue can be removed without pain. The hair is lost on the outer half only of each proximal phalanx. At all times there is a well-defined line of demarcation to be observed bilaterally on each finger at a point about midway between the dorsal and palmar surfaces. The index finger is most extensively involved. It is also noteworthy that any laceration of the skin is followed by free hemorrhage, which shows little inclination to spontaneous checking. All injuries, however, have healed promptly.

Immediately after thorough washing, whether hot, warm or cold water be used, the skin is dry, rough, harsh and reddened. It is further modified by the soap employed. Thus a strong alkaline or resin soap will create a harshness of the skin not to be obtained by any other means, while the glycerine soaps are slightly beneficial. The least irritation always follows the use of the soaps contain-

ing large percentages of tar, although they seem to add nothing toward permanent cure.

If the hand be submerged or kept in contact with fluids, such as is necessary in post mortem work, there appear many points of dense, white, fibrillar tissue, having a direction obliquely from above downward, and from the distal toward the proximal region. The superficial areas of this swollen, water-soaked tissue can be readily removed, but efforts to dispose of all result in painful laceration of sensitive deeper structures. This is especially marked over the distal phalanges, particularly over the distal articulation of the index finger, outer side, where quite a dense layer of altered tissue is formed.

As regards treatment, Lassar's paste has yielded only transient results. Following its application the skin is soft and pliable, which condition promptly disappears if the smallest quantity of soap and water consistent with cleanliness be used. Modifications of this formula, consisting of increase and decrease in the quantity of each ingredient, availed nothing. Unguents composed of salicylic acid, ichthyol, tar and its compounds, lanolin, pure, and many other formulæ, have failed to check the progress of the transformation. Bovinine, so excellent as a local nutritive agent, failed absolutely. Ol. morrhuae, in lanolin and zinc oxide, are now being employed, and, I think, may produce some favorable results. All remedies were used locally.

Concerning the sensory status of the part, recent very careful tests by Dr. Wm. Pickett show a decided change, and I record them in his own words. "The sense of touch is affected throughout the entire area of inflamed skin on the dorsal aspect of the fingers of the left hand. It is completely lost on this surface of the second and third phalanges of the index-, middle- and ring-fingers, and gradually shades up into normal cutaneous sensibility over the proximal phalanx of each of these fingers. The little finger of this hand shows hypesthesia near its tip only. In the anesthetic areas a needle-point is felt slightly as touch and this hypalgesia shades into normal sensibility to pain *pari passu* with the restoration of touch-sense. On the sides of the fingers pain and touch are felt normally. Heat and cold are appreciated with equal readiness in either hand."

"In other words, it appears that the pain-sense and the sense of touch are impaired alike and in direct proportion to the intensity of the dermatitis."

Carl Beck (*Med. Rec.*, Jan. 18, 1902), in a paper on the subject of X-ray dermatosis, calls attention to several varieties of this peculiar affection, mentioning particularly a bullous form having a period of two weeks' incubation, running two weeks, and terminating in cicatrization and depilation; also a necrotic type which develops after a slightly longer period of incubation and which requires months for its cure. This writer thinks there is a peculiar chemical influence on the cells, so that nutrition is impaired, and it is in evidence only when the influence reaches a certain point. He explains *effluvium capillorum* by the inflammatory process which affects the matrix cells.

Codman (*Phila. Med. Journal*, March 8, 1902), in an exhaustive paper, reports a large number of burns. This writer gives more attention to the length of exposure and distance of the tube from the body. He further considers the subject of idiosyncrasy in addition to other factors, and shows quite clearly the influence of this unknown predisposing condition. The review of the cases is clear, concise and abounding in interest.

All authorities seem to agree on this one point, that there is "some form of energy radiating from the platinum terminal together with the X-ray, and probably closely related to it, on the one hand, and to ultraviolet light, on the other." (Codman, *vide supra*.) Regarding burns I cannot speak from experience, being so fortunate as to have had no accidents, although probably some three thousand to thirty-five hundred cases were studied by this means. The longest exposure covered fifty-six minutes, with the tube at fifteen inches above the hip joint; the shortest exposure thirty seconds, with the tube at four inches from the hand. Several cases were subjected to repeated exposures; i. e., as many as four, as rapidly as preparations could be made between the times of exposure.

I regarded all but the most healthy skins with suspicion, and, when any doubt existed in my mind, I either refused to study such parts or demanded signed release from all liability. Especially would I decline all cases in which the slightest evidence of edema existed.

The classification of "burns" is not yet perfected, and according to the statement of Codman (*vide infra*) in his conclusions, there will be little use for one, except, possibly, that of his class "a," i. e., skiagrapher's dermatitis, which includes all forms observed in workers in this field. This case comes quite within the range of this class. In the abstract his classification, except class "a," literally falls under the same as burns, i. e., first, second and third degree; each, however, a little more resistant to treatment.

As regards the case reported, whatever the cause, there appears to be present a disturbance of the nutritive function of the part, associated with a chronic fibrosis in the tissue of the true derma. As one would expect, the later appearing desquamation could not be other than part of the general process, because of the changes in the nutritive areas of the skin. Local tissue necrosis with ulceration has never been a part of the process, which has generously permitted the thumb to escape. The right hand was likewise uninvolved.

It appears singular that two attacks should subside while exposed to the influence of conditions which induced them. Such is the case, however. I made no change in tubes, nor in the length of time in daily contact with the rays. In other words, I may state that the routine was daily, and the daily conditions approximately the same.

As an experiment I recently subjected the two hands to the action of an excited Crooks tube, and at once noted a sensation of irritability in the diseased member, while its fellow was uninfluenced.

REPORT OF A REMARKABLE CASE OF URINARY RETENTION, WITH RECOVERY AFTER PERINEAL SECTION.

FROM THE CLINIC OF DR. FRANK MARTIN.

By N. G. KEIRLE, JR., M. D.,
of Baltimore, Md.

Physician-in-Charge of Bayview Hospital.

Patient, a white man, 57 years of age, whose family history, of which he is almost ignorant, is of no value, except that it shows the class of society to which he belongs.

He went blind within a few days after birth, from what was evidently ophthalmia neonatorum.

He had gonorrhea first in 1866, and has had it eight times between 1866 and 1880. In 1889 his urine stopped entirely, and a fistula formed in the scrotum, operated on "without cutting," and he again passed his urine through the normal channels.

He allowed stricture to close through neglect. In 1894 the urethra again closed, and a fistulous sinus again appeared, in the same place.

He entered a hospital where some operation was done, without success, and he insisted upon his discharge, because the physicians spoke of operating again. In 1895 he was obliged to re-enter the hospital, almost all his urine passing through the sinus and very little through the penis.

A perineal section was done, and he passed all his urine through the opening in the perineum.

He took his discharge in November, 1895, since which time he has had absolutely no attention, voiding all urine through the perineal opening.

All this time he has lived a very hard life, drinking all he could get, up to January, 1902.

The opening in his bladder gradually closed, obliging him to strain when urinating, and causing a good deal of pain, which, he states, whiskey relieved. About this time he got into trouble and was sent to jail. He now began to suffer great pain.

He was discharged from jail on January 17th., 1902, two days previous to which he noticed a swelling in the right groin, which extended upward and down, in the crotch.

When he left jail, he went to some cheap lodging house. He was found there, and, on January 25th., sent to Bayview Hospital. Upon examination, the entire scrotum was seen to have sloughed away, exposing the testicles.

The skin covering the penis had sloughed off, and upon the abdominal walls, as high as the umbilicus, the tissues had become so filled with water that the skin and superficial muscles had been torn from their attachments and at Poupart's ligament had been torn away.

The skin and the external and internal oblique muscles had been dissected out and could be lifted up and turned over; this condition being on the right side only.

On the left side and upon the thighs, the tissues were full of water and looked dark and mottled, but were not torn away. He was at once prepared for operation, which was performed by Dr. Frank Martin.

It being impossible to get even the smallest filiform through the urethra, a perineal section was done without a guide, the urethra being found only after a great deal of trouble. A free opening was made into the bladder and a rubber tube inserted. Patient recovered promptly from the shock.

Sounds were passed every second day, and the wound dressed by washing with a bichloride solution and keeping the raw surfaces packed with sterile gauze.

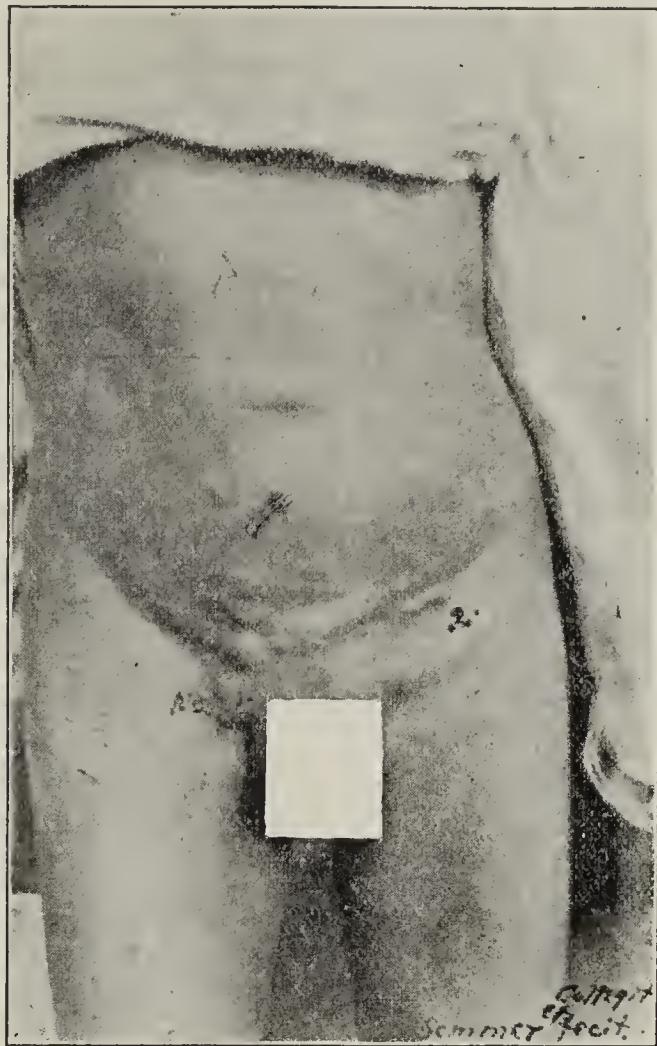
February 13th., 1902. The tissues looked fresh and clean, of a healthy pink color and there was no odor. Patient was strong and in a fair way to recovery, the greatest obstacles being the raw and exposed testicles and surrounding surfaces due to sloughing of the scrotum.

This case is remarkable from the wonderful recuperative powers shown by a man whose whole life was at variance with all rules of health and in that it is almost beyond belief that, with all our first-class medical institutions where free treatment can be had, any person should allow himself to get into such a condition, to say nothing of his suffering.

VARICOSITY OF THE SUPERFICIAL EPIGASTRIC PROBABLY AS A RESULT OF AN OLD OPERATION FOR BUBO.

By OTTO SOMMER, M. D.,
of Washington, D. C.

The case of varix of the surface of the abdomen about to be described was brought to my notice by Dr. Peck*, of Scranton. A distinct tortuous varix of one of the superficial veins—apparently the right superficial epigastric—is seen beginning somewhat below the height of the navel and naturally increasing in size toward the groin.



Varicosity of the Superficial Epigastric Vein.

Less marked varicosities are seen above the pubes. At No. 1 in the right groin is a cicatrix and some noninflammatory swelling. At No. 2 in the left groin is a large incision-scar. The patient had had surgical interference some years before in some unknown quarter of the globe, for bubo. The incision to the left seems to have been fortunate.

The bubo at No. 1 seems to have been a low one, involving one of the lymphatics near the saphenous opening, and either the cicatrix or the present indurated superficial inguinal gland, or even injury to the superficial epigastric at time of operation, by causing an obstruction to the latter vein at its entrance into the internal saphenous. From the suprapubic varicosities it would seem that the external pudic, which enters just below it, was involved, resulting in a phlebecstasy at a *locus minoris resistentiae* of a cutaneous branch of its superficial pudic branch. It would

*Service of Dr. Baggs, Metropolitan Hospital, New York Charities Department.

seem that a removal of the indurated gland at No. 1 would be first indicated to avoid possible, though not probable, later annoyance by restoring a normal circulation.

Ellis (*Medical Record*, New York, 1892, XLI, p. 109) reported a case of varicose abdominal veins in a boy, aged 16 years, and there are other abdominal varices reported.

The Surgeon-General's Index Catalogue under the heading "Groin (Varix of)" shows a surprisingly small number of reports, and these chiefly from the French literature, though this has hardly a statistical significance, the French being well known as being quicker to publish their medical observations than other nationalities.

REVUE DE CHIRURGIE.

April, 1902. (22me. Année, No. 4.)

1. Posterior Gastro-enterostomy. F. TERRIER.
2. Thoracoplasty in the Treatment of Chronic Purulent Pleurisy. A. MIGNON.
3. A Bone Disease in Horses Resembling Osteitis Deformans. L. DOR.

4. Strangulated Hernia in Infants. E. ESTOR.
5. Congenital Luxation of the Patella. DENIS G. ZESAS.

1.—Terrier reports 22 cases operated upon by the posterior, or von Hacker method of gastro-enterostomy. He describes the technique of the operation. But one patient died. In 13 cases the condition was purely gastric, with hyperchlorhydria, gastralgia, dilatation, ulcer, gastritis, etc. In 6 cases there was cancer, 4 of these being already far advanced in cachexia, yet they lived 3, 11 and 12 months after operation, while the last has but recently been operated upon. The cancer cases survived from 3 to 13½ months after operation. [M. O.]

2.—Thoracoplasty is indicated for chronic purulent pleurisy, to drain the abscess cavity permanently and to bring the internal and external walls of the pleural abscess into apposition. Mignon divides chronic empyema into cavities with the greatest diameter transversely; those with the greatest diameter vertically; and those which are pyramidal with the base downward. Those with the greatest diameter vertically may be verticolateral, verticoposterior, vertico-anterior or canalicular. Rarely an empyema may be superior in position or multiple activities may exist. The technique for the different situations of a chronic purulent pleurisy is described. A second so-called iterative thoracoplasty is generally necessary to bring about permanent recovery. This is generally well supported. [M. O.]

3.—Dor describes a disease of horses which, in its lesions, bears a remarkable resemblance to osteitis deformans or leontiasis ossea in man. Dor hopes that further histological and experimental investigations may show whether these 2 diseases have an identical cause. [M. O.]

4.—To be abstracted when concluded.

5.—Zesas has collected 64 cases of congenital dislocation of the patella, including no doubtful cases. Three were upward dislocations, the other 61 being outward dislocations. Thirty-seven of the cases were in men, 20 in women, their ages ranging from a newborn infant up to 71 years. While bilateral in 31 cases, the luxation occurred on the right side 14 times and on the left side 14 times. It was complete and intermittent 13 times, incomplete and intermittent 3 times, complete and permanent 29 times and incomplete and permanent 11 times. Heredity seems to have some influence in the occurrence of congenital luxation of the patella. There is also usually some abnormality of the joint affected, but 3 cases showing a normal external condyle of the femur. Genu valgum is always marked. That dislocation should occur easily, even from simple contraction of the quadriceps, is comprehensible when one considers the deformity of the external condyle. This deformity is embryogenic in origin. In the treatment, several different operations proposed by various surgeons have given successful results. Mechanical supports are all useless. [M. O.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending August 2, 1902:

SMALLPOX—United States.

C. D.

CALIFORNIA:	Los Angeles	July 5-12	1
	Sacramento	July 12-19	4
	San Francisco	July 6-23	2
COLORADO:	Denver	July 12-19	1
ILLINOIS:	Belleville	July 19-26	3
	Chicago	July 19-26	2
INDIANA:	Indianapolis	July 12-26	13
KANSAS:	Wichita	July 12-26	2
KENTUCKY:	Covington	July 19-26	4
MASSACHUSETTS:	Boston	July 19-26	7
	Cambridge	July 19-26	6
	Everett	July 19-26	3
	Lowell	July 19-26	2
	New Bedford	July 30	1
	Newton	July 19-26	1
MISSOURI:	Carthage	May 1-June 1	19
	Carthage	June 1-July 10	11
	St. Joseph	July 19-26	13
	St. Louis	July 20-27	11
NEBRASKA:	Omaha	July 19-26	11
NEW HAMPSHIRE:	Nashua	July 19-26	2
NEW JERSEY::	Camden	July 12-26	3
	Hudson County, including Jersey City	July 20-27	8
	Newark	July 19-26	6
NEW YORK:	New York	July 19-26	11
OHIO:	Cincinnati	July 18-25	3
	Cleveland	July 19-26	19
	Hamilton	July 19-26	2
	Toledo	July 12-26	5
PENNSYLVANIA:	Altoona	July 21-28	1
	Johnstown	July 19-26	2
	McKeesport	July 12-19	2
	Philadelphia	July 19-26	4
	Pittsburg	July 19-26	25
	Scranton	July 12-19	3
TEXAS:	San Antonio	June 1-30	1
UTAH:	Salt Lake City	July 12-26	8
WISCONSIN:	Green Bay	July 20-27	1
	Milwaukee	July 19-26	4

SMALLPOX—Insular.

PORTO RICO:	To June 15	920	1
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SMALLPOX—Foreign.

CANADA:	St. John	July 19-26	1
COLOMBIA:	Panama	June 14-21	2
EGYPT:	Cairo	June 17-July 1	1
FRANCE:	Paris	June 28-July 12	1
GREAT BRITAIN:	Birmingham	July 5-12	2
	Dundee	July 5-12	6
	Gateshead	July 5-12	5
	Liverpool	July 5-12	3
	London	July 5-12	51
	Naples	June 28-July 5	3
ITALY:	City of Mexico	July 6-13	1
MEXICO:	Moscow	June 28-July 5	6
RUSSIA:	St. Petersburg	June 28-July 5	4
	Warsaw	June 21-July 5	5
STRAITS SETTLEMENTS:	Singapore	May 18-June 7	2
URUGUAY:	Montevideo	June 11-26	93

YELLOW FEVER.

COLOMBIA:	Panama	July 14-21	3
COSTA RICA:	Port Limon	July 10-17	2
MEXICO:	Cotzacualcos	June 28-July 5	4
	Vera Cruz	July 12-19	7

CHOLERA.

CHINA:	Changchow	June 17	Epidemic
	Chinkiang	"	"
	Hangchow	"	"
	Kiangyin	"	"
	Shanghai	"	"
	Soochow	"	"
	Wusieh	"	"
JAPAN::	Formosa	To June 27	11
	Moji	July 22	Present
	Nagasaki Ken	To June 27	3
	Saga Ken	To June 27	47
	Tokyo Fu	To June 27	5
STRAITS SETTLEMENTS:	Singapore	May 17-June 7	136

PLAGUE—United States.

CALIFORNIA:	San Francisco	July 19..	1
	San Francisco	July 20	1

PLAGUE—Foreign.

CHINA:	Choanchew	June 5	Epidemic
	Tongan	June 5	"
FRANCE:	Dunkirk	June 11-13	2 deaths on S. S. City of Perth from Calcutta, etc.

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8.

VOL. X, NO. 7

AUGUST 16, 1902

\$5.00 PER ANNUM

The Diagnosis of Malaria.—Dr. Patrick Manson has contributed an interesting article which will repay careful perusal on "The Diagnosis of Malaria from the Standpoint of the General Practitioner in England" (*Lancet*, May 17, 1902). He contends that malaria is not infrequently overlooked in countries where it is common, and more frequently this disease is assumed to be present in patients when it does not exist. We deplore the fact that such a state of affairs has prevailed in this country. Dr. Thayer, in his work "Lectures on the Malarial Fevers," points out these common errors in the diagnosis of malaria by presenting some of the statistics of New York City and Brooklyn during a period of six years, ending in 1890, which he claims are "almost absolutely incorrect."

From a purely clinical viewpoint, Dr. Manson thinks that the only symptom which is to be relied upon as a basis for diagnosis is periodicity—of the tertian and quartan types—recurring rhythmically every 48 and 72 hours, but that quotidian periodicity is not pathognomonic of malaria. The therapeutic test he considers reliable for the types of malaria encountered in England. If periodicity of symptoms continues for about four days after proper administration and adequate dosage of quinine, malaria may be excluded. The most reliable method of diagnosis, with the aid of the microscope, he states is of value only in the hands of an experienced microscopist. Leukopenia, pigmented leukocytes and the percentage increase of large mononuclear leukocytes are also fairly accurate diagnostic aids.

Dr. Manson, in the course of twelve years' experience of London practice, has seen "some two or three cases in which malarial infection had been overlooked," but he has observed a very large number of cases which were diagnosticated incorrectly as malaria. From Dr. Craig's records ("Estivo-autumnal Malaria"), covering a period of 9 months' experience in the United States Army General Hospital at San Francisco, we learn that malarial parasites were found in the blood of 172 patients, in whose cases a diagnosis other than malaria was made. Tertian, quartan and estivo-autumnal infections are

included in this group. He states that typical symptoms of malaria were absent in all of these cases and that the diagnosis was possible only by an examination of the blood. The study of latent, masked and recurrent forms of malaria seems to have almost escaped the attention of observers, and deserves more careful investigation. The duration of latent malaria—cases without subjective symptoms in which the parasites can be demonstrated in the superficial circulation—still remains undetermined. Likewise the duration of malarial infection in the system, manifesting itself in recurrent attacks, is still a mooted question. Not infrequently cases are encountered in which, after apparently complete recovery, a reappearance of the symptoms occurs after months, sometimes probably even after years. While not positive, Dr. Manson inclines to the view that malarial infection does not persist after three years from the date of infection.

We concur with Dr. Manson's ideas that the microscopical diagnosis should only be undertaken by one who has had considerable experience in this work—errors are easily made by those who are not properly trained. The use of the microscope for this method of diagnosis is unfortunately too frequently neglected. In order to obviate slipshod diagnosis either physicians should possess a practical knowledge of malarial blood examination or the remedy must be found in having more experts.

The Advance of Medical Education.—In nothing, perhaps, has the advance of medical education been more distinct than in the recognition of the fact that a teaching position in the faculty of a medical college may be of sufficient importance to occupy a physician's entire time. It is now generally recognized in our larger medical schools that the so-called scientific branches—wrongly so-called, if by this it is intended to imply that the clinical subjects are not scientific—should be taught by men who practically do nothing else. This is now so generally true of chemistry, anatomy, physiology and pathology that it has become almost an accepted fact that men occupying these chairs do not

practise. The question naturally arises whether in the course of time it will not be deemed expedient to pay the men occupying chairs of medicine, surgery and obstetrics salaries sufficiently large to enable them to devote their entire time to teaching and to the hospital work connected with it. In Europe it has been the custom for some time to draw a more or less sharp distinction between the academic and practising careers. There are a number of professors of internal medicine in Germany who do not pretend to have a private practice with the exception of an occasional consultation, and such men are usually most successful teachers. The amount of work now required in a department of internal medicine in a large medical school is enormous. The preparation for this work takes even more time, and while some of the most distinguished teachers are also the busiest practitioners, there is reason to suppose that their teaching would not suffer if they abandoned practice for consultation and hospital work. There is a certain quality conferred by the quieter academic career which popularly is supposed to enable a man to impart instruction more effectively; at least, this applies to the classical courses, and there is no reason to suppose that the application would be less apt in the case of the various forms of disease processes. At any rate we commend to the trustees of the medical colleges and universities with medical departments the consideration of the question whether it might not be well to pay their teachers of clinical medicine adequate salaries so that they might devote themselves exclusively to instruction. It might be a question, however, whether in the present temper of the profession in this country such a plan should be made obligatory.

Stricture of the Ureter.—A new disease has been added to the already numerous affections of mankind. With the improved methods of examination of the body and its cavities and structures, this growth in nosology is to be expected. With the advent of the cystoscope the hitherto unexplored territory of the genito-urinary tract has been opened to study. In this country this has largely been the work of Kelly, of Baltimore, while on the continent Pawlik has been foremost among the genito-urinary. Ureteral stricture is, as Kelly indicates, a condition quite different from obstruction of the ureter. It is a true diminution in the caliber of the ureter from intrinsic changes in the ureteral walls and may be congenital, inflammatory or neoplastic in origin. Practically, only those strictures that are inflammatory in nature are amenable to treatment. Of these the tuberculous form is the com-

monest and the gonorrheal the rarest. In addition, a certain percentage results from other bacterial infections of the pelvis and urinary tract. The diagnosis of this condition is made only by the passage of the ureteral sound—hence the condition can be recognized only by an expert in this line of work. The difficulty arises in determining whether the sound is meeting with resistance in passing through the constricted caliber of the ureter or in forcing its way through the ureteral wall. The extent of the stricture is hard to determine in the absence of an acorn-bulb ureteral sound. According to Kelly, the commonest site of ureteral stricture is at the vesical extremity of the organ. This is what one would expect from the nature and origin of the disease. The palliative treatment of the condition consists in overcoming the infection and removing its source, and in the passage of the ureteral sound in order to provide sufficient dilatation to restore the ureter to its normal caliber. If this be found impracticable, and the patient develop a hydronephrosis or a pyonephrosis, the surgeon is given one of two methods of treatment to adopt. An excision of the affected portion of the ureter may be made and the distal end of the divided structure implanted into the bladder. If it be found impossible to do this either through extreme shortness of the ureter or because of an extensive infection of the kidney, a nephro-ureterectomy must be performed. Kelly's contribution is an interesting and notable addition to our knowledge of the pathology of the ureter.

A New Surgical Treatment for Typhoid Fever.—

In a recent number of *La Presse Médicale* (July 23, 1902) J. S. Dauriac advocates enterostomy as the treatment for typhoid fever. Knowing that the majority of the typhoid ulcers occur in the lower end of the small intestine, he believed, theoretically, that enterostomy, performed near the end of the jejunum, would prevent irritation of the ulceration. Only recently he had the opportunity of carrying out his theory, with marvelous success. A boy of 17 had a severe attack of typhoid, his temperature ranging from 103.2° F. to 104.8° F. for 16 days, when it fell suddenly to 96.8° F., with collapse and intestinal hemorrhage. The temperature then rose to 105.2° F. on the nineteenth day. The next day, though the patient seemed moribund, Dauriac made an incision on the left side of the abdomen less than 3 inches long, under cocaine anesthesia, and then seized a loop of the small intestine near the end of the jejunum. He carefully noted the ecchymotic spots indicating the ulcers and, choosing a point higher up, sutured this to the peritoneum, performing enter-

ostomy. He took great care to prevent the production of any spur. For the next 2 days some fecal matter passed through the rectum; after that all was passed through the artificial anus. Daily enteroclysis was given per rectum. The food was gradually increased as the temperature fell, the patient eating lamb chops 7 days after operation. Fever disappeared, no complications developed and the patient made a rapid, uneventful recovery; 36 days after operation the artificial anus was closed. Dauriac believes that such an operation, procuring rest and asepsis for the affected small intestine, is justifiable early in the course of what promises to be a severe attack of typhoid fever.

The Coronation.—It will not do to miss the true significance of the coronation of Edward, King of England. To the world at large the spectacle was merely a state ceremonial. To the English people it was doubtless a pageant that recalled the historic associations and aroused the patriotic impulses of a great nation. It was dramatic, archaic, sentimental, august and not without a touch of pathos. But it was much more than all that. It had in it a significance that has never yet been displayed in the coronation of any potentate of whom history makes record. It was, in brief, an achievement of medical science.

As we read the accounts of the coronation, we wondered how many persons realized that the whole spectacle was an unconscious tribute to the potency of modern asepticism? How many paused to reflect that the king owed his scepter, as his life, to the skill of a surgeon? We are sure we are speaking in no hyperbole when we say that the whole British empire last week was paying homage, not so much to a crowned king as to a group of uncrowned doctors. For, whatever the debate may be about the respective merits of an early or a late operation in appendicitis (and that debate in the king's case, we fear, is not finished yet), the fact remains that the operation, when it was finally done, was brilliant and the convalescence was conducted with masterly skill and success.

The coronation of the British King was a triumph of surgery!

Baron Larrey.—We have heard with interest that the famous Baron Larrey has been commemorated by an octavo volume of 756 pages, written and compiled by Dr. Paul Triaire. We have not been privileged to see this book as yet, but we learn from the *Lancet* that the author was afforded great opportunities for producing an exhaustive work on the famous military surgeon, and has conscientiously

and efficiently performed his task. Larrey's name is associated with that of the great Napoleon. He studied medicine at Toulouse and on graduating entered the French navy. He was transferred to the army and in 1797 joined Napoleon in Italy. In 1805 he was created a Baron of the Empire. The following passage, taken from Dr. Triaire's exordium, is an interesting tribute to Larrey:

"Drawn in the footsteps of the conqueror throughout his vertiginous course, Larry filled an important place in the Napoleonic epic. He was present on every battlefield, and established his ambulances in all the capitals of Europe. In this long and glorious series of campaigns, in this marvelous and dramatic triumphal march when the armies of France advanced from the Nile to the Danube, from Austerlitz to Madrid, from Wagram to Moscow, and from Leipzig to Waterloo, the figure of this army surgeon emerges, stands forth in surprising relief by the side of those warriors whom a hundred victories have consecrated. A character is revealed wherein science, authority, valor and humanity are combined in a degree never seen before and probably never to be seen again. In spite of a defective organization, Larrey contrived, single handed, to raise the medical service to a level with the rest of Napoleon's army. By the side of the machine made perfect for conquest and for death he placed another equally perfect but designed to succor and to preserve. From the inferior and discredited rank wherein, notwithstanding their talents, their good service and their personal sacrifices, the members of the healing art were subordinated in old-time armies, he raised himself to the level of the most illustrious captains and of the most celebrated physicians. From the one class he borrowed talent and intrepidity and from the other science and devotion, thus in his own person uniting the virtues of both."

The Meeting of the British Medical Association.—

The recent meeting at Manchester seems to have been a success without being marked by any specially brilliant contributions to medical science. The general character of the papers read, however, was well up to the standard which always marks the meetings of this great national Association. The most notable address that has come to hand was the Address in Medicine by Sir Thomas Barlow. The subject was the study of the Natural History of Disease as the Basis of All Advance in Its Treatment. This very wide and deep subject was treated with lucidity and most admirable practical knowledge and judgment. The trend of the paper was to show that our therapeutics has become the more truly scientific in so far only as it has for its basis a knowledge of the true essence or causation of the diseases treated. Medicine, while not yet an exact science, is more truly scientific than it has ever been in its history; and this scientific structure is erected upon a knowledge of the real etiology and pathology of disease. Sir Thomas Barlow's address was a review of much of the modern progress of thera-

peutics from this standpoint. It was a scholarly and exhaustive address and one which should be read by all physicians who desire to keep abreast of the progress of their science. It is published in the *British Medical Journal* for August 2.

Charaka-Samhita.—We are glad to note that Avinash Chandra Kaviratha, a practitioner of the Hindu system of medicine in Calcutta, is continuing the publication of an English translation of this famous Indian treatise on medicine which up to this time has been inaccessible save to those who are familiar with the Oriental tongues. We are uncertain at what date Charaka lived, but the Arabians translated his work in the seventh century A. D., and to them he is known as Zarach. This famous physician himself must have lived much earlier. His work is mentioned by Serapion, Avicenna and Rhazes. The portion of the translation which we have received deals with the management of a woman in the puerperal state and the management of her child. Especially sound advice is given on the subject of the care necessary in selecting a wet-nurse and the hygienic measures to be taken in the care of both mother and child. The second part deals with the premonitory indications of dissolution long before the dissolution actually sets in. These indications are all connected with changes of complexion, voice, etc., but no mention is made in this work, nor indeed in any work in Hindu medicine of ancient origin, of the pulse, which was not regarded as important. This translation is a distinct contribution to the literary side of historical medicine. The aphorisms remind one strongly of those of Hippocrates. Much of the matter contained is obscure to us and much seems absurd and unsound. Yet there is a great deal of practical wisdom and shrewd skill of observation displayed. We congratulate the learned translator and the Institution for the Diffusion of Ayurvedic Knowledge under whose auspices this important work has been undertaken.

The Smallpox in Cleveland.—We should judge, after reading the *Cleveland Medical Journal*, that the smallpox situation in that city is not entirely satisfactory. Last winter, it will be remembered, the public was assured that smallpox had been controlled in Cleveland by the highly efficient sanitary work of the health officer, who did not rely upon vaccination. The impression sought to be made was that Cleveland had something up her sleeve a great deal better than vaccination. Moreover, it was loudly announced that Cleveland's Mayor, the Hon. Tom Johnson, was opposed to vaccination. The inference was that the Hon. Tom would not al-

low "his people" to be vaccinated. For these various reasons Cleveland attracted much attention as a smallpox center.

To-day, according to the *Cleveland Medical Journal*, the outlook for the coming winter is very grave. Smallpox continues with sufficient intensity to make the pretensions of the Hon. Tom Johnson's health-department look particularly absurd. The only alternative is to vaccinate—and to do it quickly and upon everybody in Cleveland. The country will watch that city with all the more interest because of its record last year.

Judicial Prejudices.—A Philadelphia judge confesses in a recent interview that he has two personal prejudices which might influence his judgment against a prisoner in the dock. He dislikes "a man who parts his hair in the middle and a woman who carries a lapdog." He never sees such a woman on the street without wanting to call out "three months and costs." He says that he once sentenced a prisoner, who parted his hair in the middle, to two months for his misdemeanor and one month for parting his hair in the middle. "I added that there was a comb in the prison, and when he came out to part his hair like a man, even if he could not act like a man."

These revelations of the workings of the judicial mind are indeed interesting and not without special value to the student of medical jurisprudence in our midst. If now the learned judge had only decided that "parting the hair in the middle" was a symptom of insanity, we should have had a new light in our courts and another thing worth fighting about in medicolegal science.

Current Comment.

HE HAD MET HER BEFORE.

A Philadelphia oculist of national fame was returning from Pittsburg recently and had as a fellow-passenger from Harrisburg a young woman who seemed in great distress with her eyes. Thinking that a cinder or some dirt had been taken in, he stepped across the aisle of the Pullman and, politely informing her he was an eye-doctor, offered his services. She drew up haughtily and told him she could wait until reaching the city, where she should find a specialist "of some repute." Feeling duly crushed, he asked her pardon and resumed his seat. Five minutes after he reached home, a patient was announced, and he walked into his operating room to meet the same young woman, who told him she came to him on the recommendation of friends in Harrisburg.

—*The Philadelphia Times.*

CLINICAL EXPERIENCE.

The art of medicine is founded upon what is called clinical experience, and clinical experience, which is essentially a matter of personal equation, is the foundation of much

of the nonsense which is thought and taught and written about to-day. The great Pasteur once entertained a distinguished American visitor, who in the course of conversation remarked: "Monsieur Pasteur, your discoveries greatly interest me, but they are entirely out of accord with my clinical experience." The great savant lifting his eyes heavenward said with a fervor that only a true scientist may understand: "Dieu merci! Je n'ai pas de clinical experience."

—*Medicine.*

ALEXANDER HAMILTON'S TREATMENT OF YELLOW FEVER.

Hamilton one day conceived the idea of immersing yellow-fever patients in ice-water. Microbes were undiscovered, but Hamilton, perhaps with a flashing glimpse of the truth, reasoned that if cold weather invariably routed the disease, a freezing of the infected blood should produce the same result. He succeeded in convincing Stevens, with the issue that when the scourge was over, the young West Indian doctor had so many cures to his credit, where all other physicians had failed, that the City Council presented him with a silver tankard, gratefully inscribed, and filled with golden coins. Hamilton's fecund brain, scattering its creations, made more than one reputation.

—*Gertrude Franklin Atherton, in The Conqueror.*

Correspondence.

THERMIC FEVER IN INFANTS.

By G. W. BOOT, M. D., of Chicago.

To the Editor of the *Philadelphia Medical Journal*:

The statement made by Dr. McKee in his excellent article on The Treatment of the Infantile Diarrheas of the Summer Season, published in the *Philadelphia Medical Journal* for July 26th., that "With regard to thermic fever in infants we have never been convinced that the condition occurs," prompts me to report the following case:

Baby L., aged 7 months, was seen first June 1st., 1899, (a very hot day). The child had been raised on the bottle. Several days previous to my seeing it, the child was taken sick with diarrhea. The mother had not noticed any specially bad odor about the stools. They were usually yellowish in color, but part of the time were greenish. The child had vomited several times since the sickness began. Had twelve or more stools before 4 P. M. of June 1st., at which time I first saw the patient. The patient had been brought 5 miles from its home in the country and was wrapped up in enough clothes to keep an ordinary baby warm in midwinter. Among the wrappings were a mackintosh. The conditions then were as follows: Face pale and waxy looking and resembling nothing so much as a child after death. Respiration 84 per minute and very noisy. The pulse could not be counted at the wrist. Temperature taken hastily under the arm 107° F. The thermometer would probably have registered higher if it had been left in place long enough to show the real temperature.

As soon as possible the child was stripped and placed in a washtub full of water fresh from the pump. The temperature of the water could not have been over 70° F. After bathing for several minutes the temperature was taken in the rectum and found to be 108½° F. The cold bathing with friction was kept up for about half an hour when the rectal temperature was found to be 100° F. While in the bath the child was given 20 drops of brandy diluted with water.

The patient was ordered calomel to be followed by bismuth subnitrate and salol. All food was ordered stopped for 24 hours. At first this last order was not obeyed and it had to be repeated. As soon as the orders were followed, the child made an uneventful convalescence and remained well until the following winter when it died of meningitis.

Reviews.

Clinical Psychiatry. A Text-Book for Students and Physicians. Abstracted and Adapted from the Sixth German Edition of Kraepelin's *Lehrbuch der Psychiatrie*. By A. Ross Defendorf, M. D., Lecturer in Psychiatry, in Yale University; Assistant Physician and Pathologist of the Connecticut Hospital for the Insane, Member of the New York Neurological Society, Member of the American Medico-Psychological Association, etc. Cloth, 8vo., illustrated; 450 pages. Published by Macmillan Company, New York.

Dr. Defendorf declares in his preface that "the motive for this work was to make the teachings of Kraepelin in psychiatry accessible to American medical students and general practitioners," etc. This is a worthy motive, since Kraepelin's "Psychiatry" is not only the favorite one in Germany, but probably the best to-day in any language. To translate Kraepelin would therefore be a great service to the English-reading medical world; and the alienist who should in that way hear the great psychiatrist speak out for the first time, would, we imagine, feel indeed "like some watcher of the skies when a new planet swims into his ken."

However, the volume before us is not a translation; it embodies a peculiar plan, which seems to have been first of all to reduce Kraepelin to lowest terms, for Dr. Defendorf's book contains about one-third of the matter in the two volumes of the German work. Yet in places matter has been added, interpolated, or interwoven—a dangerous process when applied to a classic work.

In the process of abbreviation important points have frequently been omitted. Thus, while Alzheimer's and Binswanger's descriptions of "arteriosclerotic brain-degeneration" (converted by the translator into "arteriosclerotic insanity") and Binswanger's of "encephalitis subcorticalis chronica progressiva" are given quite fully, the knowledge that these conditions were found in cases of the simple demented form of paresis, as Kraepelin repeatedly reminds us, is suppressed in the translation (pp. 249-250). Without this knowledge, to the average reader the pathological description is vanity and vexation of spirit.

Kraepelin defines the "paranoid forms" of dementia præcox as characterized by delusions and hallucinations "together with (neben) symptoms of a rapidly-developing mental weakness."

In Dr. Defendorf's book this is rendered, paradoxically, "in spite of progressing mental deterioration." The term "dementia paranoides," introduced by Kraepelin, bids fair to become the accepted one; the translator does not employ it.

We could wish that Dr. Defendorf had not seen fit to cut down, to one-eighth of the original, those luminous pages of Kraepelin (pp. 200-205) in which are considered the mysterious nature of dementia præcox, the reasons for regarding it as an entity, the etiologic questions of auto-intoxication, hereditary degeneration, etc., including that now classic simile in which it is said of the victim of this disease, that "as a tree whose roots find no more nourishment in the soil provided, so shall the mental power fade so soon as the insufficient dower no longer permits a further development."

The translation is in places loose and even misleading. Thus, where Kraepelin says the mental symptoms of multiple sclerosis depend on "the location and size of the individual foci," the translation declares (p. 250) that they depend upon the "diffuseness of the process," and on the same page "focal symptoms" (*Herderscheinungen*) is rendered "focal lesions," to the confusion of the reader.

Interweaving of original matter is illustrated in the section on Pathological Anatomy of Senile Dementia (273-4), in which it would have been well, for Kraepelin's sake, to have indicated in some way the statements which are not in the German text. This section illustrates, too, a careless rendering of technical terms: as in *corona radialis*, *lenticulate nucleus*, *cytic* for *cystic*, *ganglia cells*, etc.

Corona radiata is perhaps not so good an equivalent for "marklager" as is "subcortex" or even "white matter," since, as Kraepelin emphasizes, the "tangential fibers as well as the radial" are affected.

On pages 131-2 the terms "alcoholic paresis" and "alcoholic pseudoparesis," as well as the ideas for which they stand, are repeatedly interchanged, and Kraepelin's views regarding the former are eclipsed by a confused account of the latter. Kraepelin should have been expressly absolved from responsibility for this.

A good feature of the book is the distinct marking of subsections by means of heavy-faced type. In Kraepelin, for instance the reader must search through the 41 pages on "Alcoholism" to find the description of any particular form of alcoholic insanity; in Dr. Defendorf's book this section is divided into chapters and subsections which are plainly headed. [W. C. P.]

A Manual of Otology. By Gorham Bacon, A. B., M. D., Professor of Otology in Cornell University Medical College; Aural Surgeon, N. Y. Eye and Ear Infirmary; with an introductory chapter by Clarence John Blake, M. D., Prof. of Otology in Harvard University. Third edition; revised and enlarged; pp. 445; 120 ill., 12mo. Lea Bros. 1902.

That this admirable text-book should so soon have reached its third edition ought adequately to show its competence to meet the needs of the student and the practitioner; and to class it with Nettleship's Manual of Eye Diseases will mean to all familiar with that work high praises of this equally compact volume. Dr. Blake's introduction is almost as important in its broad teaching as to special work and its relation to general medical education and practice as is the excellent presentation of the facts of otology which follow; and his cautions to the would-be specialist should be taken to heart by both teachers and students. Clear and concise and yet very comprehensive, the book covers most of the field in an attractive style that holds the reader without dilating unduly on any of its topics, and it must be doubted if so much well-digested instruction has often been given in hardly 100,000 words. The enthusiastic yet seasoned teacher is exceptionally blended with the progressive and level-headed practitioner in Dr. Bacon; and the skilful operator, ready to carry out every legitimate intervention, never allows his zeal to master his own discreet judgment nor forgets that many of his readers will not be experts like himself. Without withholding as beyond their scope the most advanced instruction in aural surgery, he yet tempers all radical teachings by showing his own caution in adopting them, however, brilliant in their results, when the competent man meets the fitting case for their employment. The Manual is eminently practical—written from large and intelligent practice and well designed to meet the needs of the conscientious practitioner, who will learn from it much that he should do, and also as to some matters that he will delegate, if possible, to more expert hands. New illustrations add to the beauty and value of the book, and few flaws can be found by captious criticism which finds so much to admire that it is jealous of any minutiae that are not beyond reproach. [B. A. R.]

The Occurrence of Casts in Urine Free From Albumin.—Craandyk found hyaline and granular casts in 20 specimens of urine out of 109 samples of urine which contained no traces of albumin. The casts were found in the sediment which appeared after the urine had stood from 4 to 6 hours. They were not numerous in any case, and were mainly hyaline, granular casts only being observed in about one-quarter of the cases. Some leukocytes and, in half of the cases, erythrocytes, too, were noted. Of the 20 patients, 14 had phthisis, and 2 had been cured, having had outspoken phthisis. Two were perfectly well and there was no history of the other two patients. Of the entire twenty cases, 3 had some genito-urinary affection, only one affecting the kidneys. (*Correspondenzblatt für Schweizer Aerzte*, May 15, 1902). [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA

Health of Philadelphia.—The Health Report for the week ending August 9 shows but 413 deaths, a remarkably low mortality. All contagious diseases have decreased, but 4 cases of smallpox with one death having been reported.

A Town Isolated on Account of Smallpox.—Owing to the prevalence of smallpox, the town of Parryville has been cut off from outside communication. No one will be allowed to leave or enter the town and trains no longer stop there. The State Board of Health has ordered that the population, consisting of about 1000 inhabitants, should be vaccinated immediately.

Hospital Bequests.—In the will of the late Miss M. E. Jackson, who died in Philadelphia, July 22, \$5000 were left to the Pennsylvania and Episcopal Hospitals, for endowing a free bed in each.

NEW YORK AND NEW JERSEY.

New York State Consumptive Sanatorium.—Deeds were filed, July 26, at Saranac Lake, transferring 514 acres of land at Ray Brook to the State Hospital Commission. This is the first actual step taken for establishing the State Sanatorium for the treatment of incipient tuberculosis.

Fighting Mosquitoes in New York.—In the borough of Queens, New York City, all the breeding-spots of mosquitoes have been treated with oil. In Flushing, L. I., the residents themselves have been performing a similar work. At Lawrence and Inwood, L. I., where \$1000 were appropriated by the village authorities, excellent results have been accomplished. The Long Island Railroad is assisting the work done in trying to exterminate mosquitoes by draining all pools of water anywhere on its property, which may be brought to its attention.

New York's Immigrants.—Out of a total of 62,610 immigrants arriving at the port of New York during June, 1902, 316 were so diseased or physically deformed that they were not allowed to enter the country.

The Prevention of Tuberculosis.—The committee on the prevention of tuberculosis of the Charity Organization Society of the City of New York appeals for \$10,000, to meet the expenses of the work undertaken. The disease is fought systematically through research into its social aspects, through education by the publication of pamphlets and the giving of lectures, by the encouragement of movements for suitable public and private sanatoria and by the relief of indigent consumptives. Among the members of the committee are many physicians: Drs. H. M. Briggs, J. D. Bryant, H. Herbert, J. H. Huddleston, W. B. James, D. G. Janeway, A. Lambert, E. La Fevre, H. P. Loomis, T. M. Prudden, A. H. Smith, W. G. Thompson, E. L. Trudeau and S. A. Knopf. Contributions should be sent, in care of the committee, to 105 East 22nd. street, New York City.

Trachoma in Syracuse, N. Y.—An epidemic of trachoma is reported in Syracuse, N. Y., especially among the children. The disease has been much aggravated on account of the hot weather, yet is spreading. In many cases blindness will result.

Eye Specialists for the Public Schools.—Ophthalmic surgeons will be regularly employed in the New York public schools this fall. The Health Commissioner of the city of New York, from the examination of 55,000 children in 36 schools last year, found no less than 12% afflicted with contagious diseases of the eye. It is to prevent the attendance of such children that a routine examination of the eyes is to be made regularly in the future.

The New Children's Sea Shore House, Atlantic City, N. J. The first institution in the United States designed to combine the benefit of sea air with medical treatment for young invalids, without regard to creed, color or nationality, was the Children's Sea Shore House, which was opened at Atlantic City in 1872. In 1873, the small cottage at that time forming the institution accommodated 45 children. Now a new building, with room for 356 patients, has been completed at a cost of \$100,000. It consists of 2 detached pavilions on either side of a large central building. Double rows of small cottages extend from either pavilion down to the beach. The governments of France, Germany, Italy, Belgium and other European countries support simi-

lar institutions, while private establishments of this character abound along the European seacoast. While the greater number of patients are admitted free of charge at Atlantic City, a few pay a dollar or two a week. The smaller cottages are arranged for mothers with infants, some of them accommodating a mother with as many as 10 children. Dr. W. H. Bennett, who is in charge of the institution, has been the chief promoter in accomplishing its growth. The treasurer, to whom contributions should be sent, is Mr. E. A. Sibley, 136 N. 4th. street, Philadelphia.

St. Eleanor's Home.—At the expense of over \$150,000, Mr. Adrian Iselin has just completed St. Eleanor's Home for Convalescent Patients from New York Hospitals, in memory of his wife. The institution is located at Scarsdale, N. Y.

New Jersey Sanatorium for Tuberculosis.—While not yet officially announced, it is, however, understood that the New Jersey Sanatorium for Tuberculosis is to be located at High Bridge, Hunterdon county, upon 150 acres known as the Cregar farm. The ground is high, extending to the top of the mountain, offering a picturesque view of northern New Jersey. The amount appropriated by the State was \$50,000, to include both the site and the building.

NEW ENGLAND.

Massachusetts Medical Examining Board.—On July 1, 1902, occurred the 25th. anniversary of the passage of the law making the medical examining board necessary. Drs. F. A. Harris and F. W. Gregory, who were appointed by Governor Rice in 1877, have thus held office for a quarter of a century.

Cottage Hospital, Exeter, N. H.—In response to a call for subscriptions of \$20,000, with which to buy a site and erect a building for the Exeter Cottage Hospital, 2 contributions of \$500 each have already been received.

A New Home for Aged Men.—Mrs. C. B. Hayden has left almost \$30,000 to the town of Peabody, Mass., for the establishment of a home for aged men, in memory of her husband.

\$11,000 to Charity.—Miss Rhoda Rogers, of Boston, who recently died, left \$500 each to the Episcopal Eye, Ear and Throat Hospital, Washington, D. C.; to the Roxbury Home for Women and Children; to St. Luke's Home for Convalescents and to many other charitable institutions.

WESTERN STATES.

Ice Mines in Arizona.—Elaborate plans are being made to utilize the ice caves near Flagstaff, Arizona. It is intended to mine or quarry the ice which, in spite of the excessive heat of northern Arizona, exists in great quantities in caves. It is expected to secure ice enough, not only to supply the towns and lumber camps in the vicinity of Flagstaff, but to provide a supply for the railroads of northern Arizona and New Mexico, and even California. The main ice cave lies at the head of Clark's Valley, 17 miles southwest of Flagstaff. The people of the country think the cave was originally what is termed a "blow-out," that is, a volcano vent made by water or gas, during some convulsion of nature. Until last August the main cave had only been penetrated to a depth of 200 feet, and even that distance could only be reached by the possessors of small bodies. At that time a young man succeeded in creeping through the narrow crevice at the 200-foot point and over 100 feet further he found the cavity gradually widening until it grew into a cavern much larger than that near the surface.

An Epidemic of Dysentery.—Within the past few days an alarming epidemic of dysentery has appeared in the vicinity of Paris, Ill., no less than 25 deaths having already occurred. A conservative estimate places the number of cases at not less than 500.

Two Cases of Glanders in Minnesota.—Two brothers, farmers, recently died of glanders in the suburbs of St. Paul. They had both been taking care of a horse with glanders. Death occurred in both men after 17 days' illness.

First Aid to the Injured.—It has been decided by the officials of the Northwestern Railroad that courses of instruction in medicine and surgery are to be given in Chicago to all train employes, so that every train crew will be competent to dress the wounds of those injured in wrecks. Rail-

way surgeons have estimated that from 50 to 75% of the deaths which now occur from injuries received in railway wrecks would not occur, provided the injured received skillful and intelligent aid at once.

Plague in San Francisco.—In spite of the fact that the San Francisco authorities have denied the recent appearance of several cases of bubonic plague, the Public Health Reports of August 8 contain the statement of the occurrence of one case of plague July 13, and others July 18, 19, 20 and 21, all 5 of which, occurring in Chinamen, ended fatally.

SOUTHERN STATES.

The Louisiana State Medical Society.—The next meeting will be held in New Orleans, April 23-25, 1903. The president of the society is Dr. Isadore Dyer; recording secretary, Dr. W. M. Perkins, and corresponding secretary, Dr. A. G. Friedrichs, of New Orleans.

Blindness Due to Antiseptics.—The surgeons of the New Orleans Eye, Ear, Nose and Throat Hospital have noted the great number of patients entering the institution from the country around New Orleans suffering from partial or total blindness. An investigation has disclosed the fact that a cheap antiseptic, containing a large amount of wood alcohol, has been used throughout Louisiana. The city chemist found as much as 30% of methyl alcohol in some of these specimens, rendering them totally unfit for internal administration. As methyl alcohol, when taken internally, acts directly on the optic nerve, the majority of the persons affected will not fully recover their eyesight.

Old Dominion Journal of Medicine and Surgery.—The first number of this journal, which is to appear quarterly, under the control of the Alumni Society of the Medical College of Virginia, appeared July 1. Beside its editor, Dr. Greer Baughman, and associate editor, Dr. A. B. Greiner, the journal has 10 collaborators, each one of whom is pledged to furnish an original paper during the year. The editor of this new magazine, published in Richmond, Va., has but lately returned from Vienna, where he spent several years in medical research work. He is now lecturing upon hygiene in the Medical College of Virginia.

Smallpox in Delaware.—Trustees of the Poor of New Castle County, at a meeting held July 31, adopted a resolution refusing to take any more smallpox patients into the Emergency Hospital at Farnhurst from Wilmington, unless the city of Wilmington will agree to contribute toward the expense of the institution.

Georgetown University Hospital.—On account of lack of facilities, the directors of Georgetown College intend erecting an addition to Georgetown University Hospital in the near future. More than 1000 emergency cases were treated at the hospital during the past year.

MISCELLANY.

Smallpox in Barbados.—On account of the outbreak of smallpox at Barbados other British West-Indian Islands have imposed a quarantine against Barbados. Seventeen cases appeared on the island in a few days. On account of the proximity of Barbados to St. Vincent, it is feared that the disease may spread to Kingstown, St. Vincent.

Yellow Fever in Mexico.—During the week ending July 26, 19 cases of yellow fever occurred in Vera Cruz, with 9 deaths. The Public Health Reports, August 8, describe a second attack of yellow fever in an American, 4 weeks after his first attack, which lasted 12 days. The diagnosis in both attacks was confirmed by blood examination. The patient had been in Vera Cruz 2 months before his first attack. After that he was constantly exposed to infection, occupying a room with a yellow fever patient for the week preceding his second attack.

Cholera in Manchuria.—Between July 2 and August 3, 161 cases of cholera, with 101 deaths, occurred in Blagovestchensk. The deaths at Kharbin number from 130 to 150 daily, chiefly among the Chinese. It is feared that the epidemic may reach Irkutsk and Vladivostok.

Smallpox in the United States.—For the month of July, Public Health Reports show 2,350 cases of smallpox in the United States, with 157 deaths, as compared with a total of 6,145 cases for July, 1901, with 158 deaths.

Cholera in Manila.—Cholera continues to decrease in

Manila and a majority of the provinces. Since the outbreak of the epidemic, until May 15, 1005 cases were reported in Manila, 800 of which ended fatally. All cases, with few exceptions, were treated in the cholera hospitals organized by the Board of Health. Major Maus, in his last report, calls attention to the good nursing done by the Sisters of Charity. In spite of the rigid quarantine around Manila many cases escaped from the city and thus caused outbreaks of the disease in the neighboring provinces. Out of 23 Americans affected, 18 died; of 13 English, 10 died; of 4 other Europeans, 2 died. Colonel Harvey's report, for the month ending June 15, states that cholera has attacked 2 officers, 62 American and one native soldier. The cause, in the majority of instances, has been drinking infected water, though a few cases were due to food, contaminated either by handling or by flies. Outside of Manila a total of 5,967 cases was reported, with 4,290 deaths. In the city, up to June 15, there have been 1350 cases with 1100 deaths. His report also showed a considerable increase in the percentage of sick from all causes, as compared with that of the previous month.

Obituary.—Dr. J. L. Banta died August 1 at Pembine, Wis.—Dr. Jesse B. Losey died August 4 at Conesus Center, N. Y., aged 75 years.—Dr. I. Renwick Glen died August 4, at Plainfield, N. J., aged 62 years.—Dr. John E. Morgan died August 4, at Hollis, L. I., aged 46 years.—Dr. Henry Darling died in Washington, D. C., August 6, aged 58 years.—Dr. Thomas Hickey died, August 5, at Shamokin, Pa.—Dr. R. H. Lee died August 6, at Charleston, W. Va.

GREAT BRITAIN, ETC.

Emigration to America.—During the month of July, 1902, 19,922 persons left England for the United States, compared with 14,824 in July of last year. During the 7 months ending July 21, no fewer than 123,612 emigrated, as compared with 104,154 during the corresponding period last year. The number emigrating to British North America was 41,292 for seven months as against 26,557 for that period last year. Thus emigration to America continues to increase.

Liverpool School of Tropical Medicine.—The committee of the school is making arrangements to enable Major Ronald Ross to proceed to Ismailia next September, to start an organized campaign against malaria, in consequence of an urgent request from the President of the Suez Canal Company that the Liverpool School of Tropical Medicine assist in a concerted effort to cope with the prevalence of malaria.

Ireland's Death-Rate.—During the month of June, 1902, the lowest death-rate reported among the 21 principal towns of Ireland was 4.4 per 1000 at Lurgan; on the other hand the highest reported was 64.6 per 1000 at Kilkenny.

London Hospital.—Dr. A. E. Sansom, who recently resigned the position of physician to the London Hospital, has been appointed consulting physician and member of the London Hospital Medical Council.

Manchester Royal Infirmary.—The scheme for rebuilding the Manchester Royal Infirmary on its present site in the heart of the city has been defeated by a large majority, at the recent meeting of the trustees. The erection of the new hospital will probably be determined upon in the near future. An excellent site has been offered in Stanley Grove, outside of Manchester.

CONTINENTAL EUROPE.

A New Use for Carrier Pigeons.—At Evian, France, lives a doctor who carries a basket of carrier pigeons when making his visits. Before leaving the house of a patient, he fixes his prescription under the bird's wing. The bird flies directly to the druggist, who at once prepares the medicine; a messenger on a bicycle takes it, and the patient receives it a few moments after the doctor's departure.

A Monument to Pasteur.—On August 3, the new monument to Pasteur at Dôle, France, was unveiled by the Prime Minister, Dr. Combes.

French Surgical Congress.—The 15th. annual meeting will be held October 20, in Paris. The most important subjects to be discussed will be the surgery of the heart and pericardium, and the treatment of tetanus.

Obituary.—Dr. Cesare Taruffi, professor of pathological anatomy at Bologna, died recently.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

July 26, 1902.

1. Presidential Addresses to the Branches of the British Medical Association: Metropolitan Counties Branch. The Jubilee of the Metropolitan Counties Branch. HOWARD MARSH.
2. Birmingham and Midland Counties Branch. The Relation of Medical Men to their Patients, and of the Profession to the Public. HENRY MALET.
3. East Anglian Branch. The Work of a Local Society. WILLIAM E. WYLLYS.
4. East Yorks and North Lincoln Branch. The Etiology of Cancer. ALEXANDER THEODORE BRAND.
5. Staffordshire Branch. Some Clinical Cases. WHEELTON HIND.
6. A Clinical Lecture on a Third Series of Cases of Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ. P. J. FREYER.
7. The Medical Curriculum of the Scottish Universities. E. A. SCHAFER.
8. A Case of Movable Liver with Greatly Distended Gall-Bladder, Delivered by Cholecystomy. DAVID NEWMAN.

4.—Brand does not consider the theories of Cohnheim, Thiersch, Hansemann and Creighton sufficient for the **etiology of cancer**, the only one explaining its origin, ever extending increase and general behavior is the infection theory. The most convincing argument in favor of this theory is the fact that cancer spreads locally by infecting its immediate environment, and is disseminated by the blood- and lymph-currents, the latter infecting glands en route. The fact that its favorite sites are places easily accessible to infective germs (55% occurring in the alimentary canal) suggests that the infective agent is ingested. Other favorite sites are in organs concerned in the reproduction of the species and nutrition of the young. It generally arises in sites liable to injury and irritation. The author calls attention to the inoculability of cancer, as from lip to lip, tongue to gum, etc., and to accidental inoculation in connection with operation, and to the fact that lower animals have been successfully inoculated. As to locality we find cancer most rampant where there is poor sewage. The author cites several houses which seemed to be "cancer haunted," but, upon thorough disinfection of the rooms and burning the bedding, no more cases occurred. As to geographical distribution, cancer seems to be a disease of temperate climates. The belief that Jews as a race are remarkably exempt from cancer the author considers erroneous, as shown by statistics. As to heredity, he considers it improbable that the disease itself can be transmitted. [H. U. N.]

5.—Hind reports the following **clinical cases** which are interesting because of their rarity: Four cases of patent urachus in which abscess formation took place; a case of tuberculosis of the umbilicus with later involvement of the peritoneum; 5 cases of unilateral enlargement of the parotid due to occlusion following temporary or permanent swelling of the duct in the mouth, 4 cases in which it was due to the presence of a salivary calculus, and 2 cases in which it resulted from the presence of a foreign body in the duct, in one instance a stalk of grass; a case of injury to the pancreas resulting in the formation of a cyst, which, though it contained pure pancreatic juice, had no digestive effect on the cyst wall, and 2 well-marked cases of acute orchitis. The author calls attention to the value of continuous irrigation in dealing with open septic wounds and infected areas. [H. U. N.]

6.—Freyer records a further series of 6 cases in which he has successfully performed the operation of suprapubic enucleation of the prostate. He has thus far reported 14 cases of total **extirpation of the prostate**. Thirteen have been completely successful, the other case had recovered from the operation and was passing urine naturally when he was seized by acute mania, from which he died. In one case Freyer accidentally, and in 3 deliberately, tore across the prostatic urethra when he found that the enlargement had not sufficiently advanced to define and loosen the lobes along either the superior or inferior commissure, so as to

enable one to peel the prostate off the urethra and leave the latter behind intact. [F. T. S.]

8.—Newman reports a case of cholecystitis depending on gall-stones; a cholecystostomy was performed and at the time of operation the liver was found to be abnormally movable; recovery followed. [F. T. S.]

LANCET.

July 26, 1902.

1. Two Lectures on Injuries of Nerves. Lecture II.
ANTHONY A. BOWLBY.
2. Five Clinical Lectures on the Causation and Prevention of Phthisis. Lecture IV. BYROM BRAMWELL.
3. On Puerperal Aphasia, with an Analysis of 18 Cases.
W. A. MCINTYRE SINCLAIR.
4. On the Acetone Series of Products in Connection with Diabetic Coma. F. W. PAVY.
5. Three Cases of Motor Aphasia from Injury to the Head, Two of Which Were Rapidly Cured by Operation.
DAVID NEWMAN.
6. A Report of 43 Consecutive Cases of Diphtheria.
S. GURNEY CHAMPION and A. L. VAUGHAN.
7. Note on a Case of "True" Intestinal Sand.
CHARLES H. BEDFORD.

1.—Bowlby discusses first **primary nerve suture**. Primary suture should always be employed when it is possible to do so. The chief cause of failure in primary suture is sepsis. A secondary suture is demanded in all cases in which a wound has been inflicted and a nerve divided. In performing secondary suture it is well to remember that the nerve can be most easily found above and below the scar, therefore a free incision should be made. After free exposure of the nerve it should be separated from the scar tissue, its ends freshened and brought together by suture. In cases in which the nerve has been divided for a great length of time, the lower end is often shrunken and much smaller than normal. Nerves will stand considerable tension; this, however, can often be relieved by flexing the part. The sooner the nerve suture is done, the greater is the chance of benefit. The restoration of sensation and motion after nerve suture is most irregular in its appearance; sensation, however, usually appears first. The function of some nerves seems to be more easily restored than that of others; for instance, better results are obtained from suture of the perineal and musculospiral nerves than is obtained after suture of the median and ulnar. It is seldom or never possible to restore the function of the part absolutely. When nerves are partially divided, operation is indicated according to the amount of division and this can be estimated by the muscles involved. Cases of partial division tend to a spontaneous union. Bowlby refers to a number of interesting cases of contusions of nerves in which absolute palsy resulted and remained for varying periods. In such cases it is considered wise not to attempt any operation but to employ massage, galvanism and use of the part. There has been no case of nerve suture reported in which motor power has been restored after an interval of four years. [J. H. G.]

2.—Abstract will appear when concluded.

3.—Sinclair remarks that **puerperal aphasia** is a term which has not yet found its way into medical nomenclature. He includes under the name not only cases of loss of speech occurring during the strictly puerperal period, but also cases occurring during the latter months of pregnancy. There is a pathological factor which he believes must be taken into account in all cases of aphasia occurring at this time, namely, the altered condition of the maternal blood for a certain period before and after delivery, and the greater tendency of the blood at this time to undergo clotting within the vessels. He reports a case in full and has gathered from literature the records of 18 cases. The condition may be due to several causes. Poupon groups all under 2 broad classes: Those due to nervous origin and those due to vascular origin. Sinclair admits the possibility of the first class, but differs somewhat from Pou-

pon in regard to the second. He asserts that in a comparatively large number of cases the bloodvessels show no signs of degeneration and there is no cardiac disease nor albuminuria nor any suspicion of the neurotic habit. In these cases he believes the origin of the disease lies in the composition of the blood itself and in greater tendency to the formation of clots. [W. A. N. D.]

4.—Abstract will appear when concluded.

5.—Newman reports 3 cases of **motor aphasia from head injury** in 2 of which operation was done and recovery followed. In the first case reported the patient had a fall from a bicycle followed by unconsciousness and incontinence of urine and, after 3 days, by epileptiform seizures which increased in frequency. Consciousness returned and showed the presence of motor aphasia. On the ninth day after the accident palsy of the right leg and arm began to develop and on the tenth day it was complete. The epileptiform seizures at this time were also increasing in frequency. The patient was trephined over the motor area and when the dura was opened about an ounce of blood escaped. Drainage was established and the patient made a rapid recovery. The operation was followed by immediate cessation of the epileptiform attacks and a rapid recovery of motion in the paralyzed leg. Speech was resorted in 2 weeks. The second case was that of a compound fracture of the skull. The symptoms presented were those of concussion with complete unconsciousness. On the fourth day slight twitchings of the right arm and leg were noticed and the patient developed an epileptiform attack; no paralysis was present. The patient was trephined on the fifth day, unconsciousness being so complete that no anesthesia was required. Epileptiform attacks disappeared after the operation, but upon the return of consciousness the patient was found to be aphasic. Complete recovery had taken place by the twenty-eighth day after operation. The third case was that of a patient who was injured by a fall from a bicycle, which was followed by complete unconsciousness and incontinence of urine; the patient was unconscious for 11 days; the incontinence of urine continued for a month. The patient had no epileptiform attacks and no paralysis of the limb. Evidence of motor aphasia was shown on the eleventh day after the injury. At the end of 4 months the patient had recovered from the aphasia. [J. H. G.]

6.—Champion and Vaughan present a report on **43 consecutive cases of diphtheria**. These cases were treated in the Norfolk and Norwich Hospital during the past 2 years. Tracheotomy was performed in 39 out of the 43 cases. The total number of deaths was 10, 5 of which occurred in patients between 1 and 2 years of age; two between 3 and 4 years. The mortality between the ages of 2 and 4 years was 41.2%, while only 14 per cent. between the ages of 12 and 14. Paralysis occurred in 3 patients, all of whom recovered completely. They found that the incubation period varied between one and 11 days. In 2 cases the seat of infection was the pharynx, in 14 it was the larynx, in 24 it was the pharynx and larynx and in 3 the pharynx, larynx and nose. A rash occurred in 14 cases. In 11 cases it was an irritable urticaria with some erythema. In one case constitutional disturbances occurred with the rash, and an irritable small papular rash occurred in 3 cases. In 30 cases there was albuminuria. The complications encountered in the fatal cases were hemorrhage followed by bronchial pneumonia, suppression of urine, asphyxia and cardiac failure. In the nonfatal cases bronchopneumonia, otorrhea, subcutaneous emphysema, paralysis and diphtheretic infection of the nose and of the wound were encountered and, as accidental complications, congenital syphilis, measles and old pleurisy. Tracheotomy was performed in 39 cases without an anesthetic. Parker's silver tube was used in all the cases; at the end of from 24 to 48 hours it was removed for cleaning and at this time it was either replaced or substituted by a rubber-tube, if one was necessary. From 6,000 to 8,000 units of antitoxin were given as an initial dose and repeated if necessary. The indications for pushing the an-

titoxin were (1) persistent rise of temperature with other signs of toxemia; (2) abundance of membrane and dry inspissated mucus; (3) bronchopneumonia; and (4) spread of disease and reinfection. Stimulants were used freely and expectorants were given in every case, such as squills, ipecacuanha, tolu, etc. Locally, the pharynx and nose were syringed with antiseptic lotions of carbolic acid or boroglyceride in those cases in which the membrane persisted after 48 hours of treatment. The indications for tracheotomy were (1) recession of the intercostal spaces, the lower ribs and the clavicular fossæ; (2) restlessness with dyspnea were always regarded as most urgent symptoms and, when present, it was the rule to operate without delay. In no case was cyanosis waited for. [F. J. K.]

7.—Bedford contributes a note on a case of "true" intestinal sand. The patient in question was a European woman, about 44 years of age, who gave a very marked history of gout. She complained of constipation which often required active treatment. At the time when she passed the intestinal sand she suffered from an attack of mucocolitis. An examination of the sand showed that it consisted of very fine granular and yellowish brown hard material, which under the microscope showed that it consisted of oblong irregularly oval particles. The color varied from black through reddish brown to light yellow. The organic matter, after being washed and stained with methylene blue, showed a quantity of cocci and bacilli. The chemical analysis gave the following results: Moisture 5.20 per cent.; calcium phosphates 28.68 per cent.; calcium carbonate 5.20 per cent.; magnesium phosphate, 0.49 per cent.; organic matter 60.43 per cent. Uric acid and urates were not found. [F. J. K.]

MEDICAL RECORD.

August 2, 1902.

1. Diet, Drugs and Diagnosis in Typhoid Fever. CHARLES H. LEWIS.
2. Summer Disorders, Dietetic Management and Milk Substitutes in Children. LOUIS FISCHER.
3. Causes of Cancer. ROBERT REYBURN.
4. Hunchback: Rectifying of Spinal Deformity by Forcible Træction: Immediate Straightening. J. V. YOUNG.
5. Diagnosis of Incipient Carcinoma of the Endometrium. J. A. SCHMITT.

1.—Lewis discusses diet, drugs and diagnosis in typhoid fever, and includes extensive tabulated records of 90 cases which have occurred in his service. He believes that calomel is our most useful drug. His conclusions briefly stated are: (1) In typhoid fever approximate the diet to a pint of milk, diluted with an equal amount of vichy daily. (2) approximate the therapeusis to half a grain of calomel twice a day. (3) give free and frequent draughts of acidulated or pure water. [T. L. C.]

3.—Reyburn summarizes a paper on the causes of cancer as follows: (1) Cancer is a disease of senility or decay of the tissues, or at least occurs at a time when the retrograde metamorphosis of the tissues is taking place. (2) Cancer is comparatively rare in hot climates and especially where the diet of the inhabitants is composed chiefly of rice or other starchy foods. (3) Cancer at the present time is very prevalent where animal food is largely consumed; the number of cases of cancer has been found to increase in proportion to the increase in the consumption of nitrogenous food or animal foods. (4) The theory of Gaylord that cancer is caused by a protozoon seems to be disproved by later investigations, and the probability is that cancer is simply erring epithelium, which has taken on an abnormal growth and development. (T. L. C.)

4.—Young reports a case of hunchback operated upon by forcible traction and immediate straightening, after the method of Tubby and Jones. (T. L. C.)

5.—Schmitt presents a paper on the diagnosis of incipient carcinoma of the endometrium. He believes that digital exploration is one of the most important methods of examination and in conjunction with microscopical investigation it accomplishes everything that is needful for a correct diagnosis. The preliminary dilatation of the cervix may be done either by splitting or by tents. (T. L. C.)

August 9, 1902.

1. A New Use for the Useless Appendix, in the Surgical Treatment of Obstinate Colitis. ROBERT F. WEIR.
2. The Medicolegal Value of the Röntgen Rays. CARL BECK.
3. A Case of Multiple Personality. J. ALLEN GILBERT.
4. Some Hints to the General Practitioner on the Treatment of Chronic Nasopharyngeal Catarrh. W. FREUDENTHAL.

1.—Weir suggests a new use for the useless appendix in the surgical treatment of obstinate colitis. Weir utilized the appendix for the purpose of making a fistula in a case of colitis by means of which the lower bowel might be irrigated. He employed a 5% solution of methyl blue alternating with a solution of nitrate of silver 1 to 5,000. He also recommends the employment of bismuth of the strength of 1 dram to an ounce of starch water. He believes that in suitable cases the appendix may offer a better field through which an incision may be made for treatment by irrigation than the cecum itself. [T. L. C.]

2.—Beck reports a number of cases illustrating the medicolegal value of the Röntgen-rays. [T. L. C.]

3.—Gilbert reports a case of multiple personality. A man of 22 years fell from a barge and struck his head on a log in the water 10 feet below. Following this the patient manifested 3 distinct personalities, in each of which he was unconscious of what transpired in the others. Under hypnosis an accurate record of his different states could be adduced. Once of his own accord and twice by hypnosis he passed into a state which could not be connected by the other 3 and in which he was in a state of semi-delirium. The changes from one personality to another were gradual instead of abrupt. At times, memory of one stream of consciousness faded out gradually as the other came into prominence. Several times in one personality short preceding experiences were vaguely recalled and thought to be dreams, showing that at times either the different selves overlapped or that the events supposed to have been dreamed were experiences of the same self under a sort of psycho-epileptic seizure. [T. L. C.]

4.—Freudenthal presents some hints on the treatment of chronic nasopharyngeal catarrh. He states that the hygienic part is far more important than the medicinal, and a change of climate is often of great value. He advises sea bathing and especially diving under the waves. By this means the entire upper respiratory tract is cleansed and stimulated. In winter it is desirable to send these patients to places with a moist, mild atmosphere. For those who stay at home during the winter the dryness of our rooms must be prevented in every way possible. Free ventilation is a necessity. When the patient's throat feels dry, a steam atomizer may be used to advantage for the purpose of moistening the atmosphere. He advises lukewarm baths and that the patients remain in the bath-room, in which the steam from the water has increased the moisture in the air, for 10 or 15 minutes. The treatment of nasopharyngeal catarrh by local applications is also considered. [T. L. C.]

MEDICAL NEWS.

August 9, 1902. (Vol. 81, No. 6.)

1. Physiology of the Pancreas. RUSSEL H. CHITTENDEN.
2. Some Aspects of the Pathology of the Pancreas from the Standpoint of Recent Investigation. GEORGE BLUMER.
3. Hemorrhagic Pancreatitis: Operation: Recovery. WILLIAM A. BATCHELOR.
4. The Significance of Glycosuria. WARREN COLEMAN.
5. Some Etiological Factors in Diseases of Women. E. K. BROWD.
6. Note on the Administration of Water in Disease. G. FRANK LYDSTON.
7. Report of Two Cases of Temporary Hypertrophy of Glands of the Skin of the Axilla in Puerperæ. C. S. BACON.

1.—Chittenden states that, while the pancreas has marked influence upon the metabolism of carbohydrate matter, and while disturbance of the gland or any insult offered to it may result in temporary or permanent glycosuria, there are indications that some forms of so-called pancreatic diabetes are to be explained, not through a simple disturbance of the pancreas, but rather as the result of a physiological disturbance of the inter-relationship of several allied glands or structures. [T. M. T.]

2.—Blumer, in his article, takes up: (1) The relation of lesions of the pancreas to diabetes; (2) The conclusions to be drawn from recent studies of the acute hemorrhagic and suppurative pancreatitis as regards the etiology of these conditions and their relation to gall-stone disease, to chronic intestinal pancreatitis and to fat necrosis.

[T. M. T.]

3.—Batchelor reports a case of the above condition and lays great stress on ample drainage. In draining such a cavity as existed, the external opening left for tubes and packing should be of goodly extent and a tube should be passed down to both extremities of the cavity. After the first dressing, instead of the ordinary rubber-tubing with cut-off ends, he advises the use of ends of stomach-tubes; these furnish tubes of good size and with smooth rounded ends. [T. M. T.]

4.—Coleman recognizes the following varieties of glycosuria: (1) Alimentary; (2) toxic; (3) forms associated with diseases and injuries. [T. M. T.]

6.—Lydston concludes his article as follows: (1) While the ingestion of large quantities of water in various affections is often of great value, the treatment is sometimes extremely detrimental; (2) the nutritive value of the blood is often impaired by the relative hydremia produced by the ingestion of large quantities of water; (3) disturbances of the circulatory and nervous systems are frequently produced by it. So-called weak heart, palpitation, nervous irritability, lassitude and exhaustion on slight exertion are among the phenomena that may result; (4) serious digestive disturbance, involving impairment of the secretion and composition of the gastro-intestinal juices and gastromotor insufficiency may be produced by the ingestion of water in large quantities; (5) edema and anasarca, while often relieved by the free ingestion of water under favorable circumstances, are not infrequently enhanced by it; (6) renal water habit may develop, by virtue of which the kidney becomes permanently sluggish unless it receives its wonted stimulus of large quantities of water; (7) acute and chronic inflammatory affections of the kidney are sometimes aggravated by giving water in excess, simply by overworking the renal organs; (8) inflammatory affections of the lower portion of the genito-urinary tract are often deleteriously affected by excessive water-drinking through the mechanical disturbance necessitated by the resultant frequent and copious micturition. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

August 9, 1902.

1. Diagnosis in Abdominal Lesions.
THOMAS H. MANLEY.
2. Primary Epithelioma of the Uvula and Soft Palate and Treatment with the Röntgen Rays.
JAMES F. McCAW.
3. Some Cases of Sympathetic Ophthalmia.
N. D. McDOWELL.
4. The Vaccination Question. THERESA BANNAN.
5. The Successful Treatment of Hay Fever.
J. W. JERVEY.
6. Traumatic Abscess and Necrosis of the Nasal Triangular Cartilage and Special Treatment for Prevention of External Deformity. ROBERT C. MYLES.
7. A Noteworthy Case of Aortic Regurgitation.
LEO JACOBI.
8. The Importance of Individual Predisposition in the Development of Tuberculosis, with some Remarks on the Relation of Metabolism to Human Susceptibility. H. E. LEWIS.
9. The Antiseptic Treatment of Rectal and Genital Chancroid. SINCLAIR TOUSEY.
10. A Fluoroscopic and Percussion Sign of Pleuritic Effusion hitherto Undescribed.
CHARLES LYMAN GREENE.

11. Report of a Successful Removal of the Cecum and Ascending Colon for Adenocarcinoma.

J. B. BOUCHER.

12. The Maturation of Ova in Relation to Puberty and the Menopause. J. G. DRENNAN.

13. Artificial Respiration in an Asphyxiated Newborn Babe. GEORGE W. GREENE.

1.—Will be abstracted when concluded.

2.—McCaw reports a case of **primary epithelioma of the uvula and soft palate** in a woman of 37, with recovery, after excision, upon 20 minute exposures to the Röntgen rays, at first 3 times a week, then once weekly. The condition, while rare, is very seldom observed in women.

[M. O.]

3.—Out of 50,000 patients with eye disease but 6 showed **sympathetic ophthalmia**. McDowell reports in full one of his 5 cases. The patient, a man of 23, recovered upon atropine, calomel, sweating, hot bathing and mercurial inunction. The condition developed 3 weeks after enucleation of the other eye. [M. O.]

5.—Hay fever depends on a peculiar nervous susceptibility, some abnormality (hyperesthesia, malformation or both), in the nasal structures and the presence of some individually irritating substance in the atmosphere. Jervy uses cocaine, alkalies and suprarenal extract solutions for hyperesthesia. He also gives tonics, regular diet and laxatives, if necessary. He believes that the specialist should relieve practically all cases and ultimately cure from 75 to 90% of cases. [M. O.]

6.—Myles has had **traumatic abscess and necrosis of the nasal triangular cartilage** occur in 3 patients after operation. He treated them by incision, curettement and irrigation. These cases may be of 3 kinds, superichondrial hematoma and suppuration with separation of the perichondrium from the cartilage, extending to the anterior border; the same condition not extending to the anterior border; necrosis and suppuration along the cartilage, due to the removal of a part. [M. O.]

7.—Jacobi reports a case of **aortic regurgitation** in a musician, aged 35, which had remained latent a long time. Dizziness, pain, dyspnea, etc., appeared suddenly, with a loud aortic diastolic murmur, transmitted to both carotids and heard across the room. There was a typical water-hammer pulse, besides. [M. O.]

8.—Lewis states that **individual predisposition is far more important in the development of tuberculosis than bacterial infection**. The constituting factor of individual predisposition is a pronounced failure in metabolic equilibrium, during and preceding clinical tuberculosis. Conditions of malnutrition are the best result of the absence, decrease or variation of enzymes. The tubercle bacillus possesses certain ferments in its organism which, under favorable conditions, perform the functions common to organic life. Immunity to tuberculosis is the result and complement of those metabolic changes in living tissue whereby the enzymes, through greater potency than those of the tubercle bacillus, are able to maintain normal osmotic and functional activity in the ultimate cells. When those enzymes are less potent, susceptibility to tuberculosis results. [M. O.]

9.—In treating **chancroid**, Tousey uses potassium permanganate followed by peroxide of hydrogen. A dressing of alum and lead acetate is kept on. Antisepsis gives better results than cauterization. [M. O.]

10.—Greene has found that in **unilateral pleural effusion** the heart border shows a marked change in position between inspiration and expiration, when the patient sits erect. This is demonstrated by percussion, sustained by inspection and auscultation and confirmed by the fluoroscope. The technique for eliciting the sign and 2 cases are given. [M. O.]

11.—Boucher reports a case of **adenocarcinoma of the cecum and ascending colon**, all of which was successfully removed by operation, from a man of 56. [M. O.]

13.—Greene describes an instrument which he has used

with success for inflating the lungs of an asphyxiated infant. [M. O.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

August 7, 1902. (Vol. CXLVII, No. 6.)

1. The Present Status of the Pessary in the Treatment of Displacements of the Uterus. F. H. DAVENPORT.
2. Electricity; Its Use in Gynecology. W. H. WHITE.
3. Multiple Fibroids of the Uterus. SAMUEL BRECK.
4. A Self-Retaining Tongue Depressor. HARRIS PEYTON MOSHER.

1.—Davenport gives a few general principles, which, if adhered to, will make the treatment of displacements by pessary a success in the greatest number of cases possible. (1) Study the cases. Determine the probable length of time that the displacement has lasted, its possible cause, the symptoms it has caused, their order of occurrence and the relative importance of the general and local manifestations and from these data form a careful opinion as to the chances of cure by one or the other methods of treatment. (2) In a case of retroversion or flexion, always replace the uterus before adjusting the support. The pessary should not be relied upon to do this, as only in the rarest cases will it be possible. (3) In choosing a support choose one which fits exactly if possible, but, if not, have it rather too small than too large. (4) The ideal pessary is one which supports the uterus perfectly and without the patient being conscious of its presence. (5) The patient should be kept under observation while she is wearing the pessary and seen at regular intervals, preferably after each monthly period, for the cleansing of the support and its replacement. (6) When it is deemed wise to make an attempt to go without it, it should not be removed at once, but a smaller one substituted to be worn a month, and then a still smaller one, which may then finally be removed. [T. M. T.]

2.—White advises the use of electricity as follows: (1) **Relaxed tissues** may be strengthened by the sinusoidal current, given as long as can be borne without pain, using the bipolar vaginal electrode for about 10 minutes. (2) **Amenorrhea.** The galvanofaradic current applied abdominodorsal, or pad applied to each, or an intra-uterine electrode with abdominal pad about 20 mam., 40 volts for 10 minutes. (3) **Menorrhagia.** Use the positive intra-uterine application with a large abdominal pad 300 cm., strength of current about 25 mam., 40 volts. (4) **Metritis or enlarged uterus from neglected subinvolution.** Use negative intra-uterine electrode, with a large abdominal pad as the positive, giving current as strong as can be borne, 30 to 50 mam., about 40 volts. (5) **Ovaries.** Ovarian inflammation or congestion is treated with the carbon ball electrode for the anode placed in the vagina as near to the ovary as possible, with a pad 75 to 100 cm. for the cathodal pole on the abdomen over the ovary, using a current of about 10 mam., of 30 to 40 volts, for about 10 minutes. (6) **Salpingitis.** The pain is relieved by using either the high tension or sinusoidal current with the bipolar vaginal electrode: (7) **Tumors.** The treatment of tumors by the continuous current was considered the most conservative treatment, but the improved methods of surgery, with a decided reduction in mortality, now seems preferable in most cases. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 9, 1902.

1. The Advantages of the Knee-Chest Posture in Some Operations upon the Vesical End of the Ureters. HOWARD A. KELLY.
2. The Treatment of Serpiginous Ulcer of the Cornea. CHARLES J. KIPP.
3. The Nature and Treatment of Pterygia. JOHN O. McREYNOLDS.
4. Thiosinamin. Clinical and Experimental Observations With Reference to Corneal Opacities and Other Ocular Lesions. GEORGE F. SUKER.
5. A New Operation for Complete Laceration of the Per-

ineum. Designed for the Purpose of Eliminating Danger of Infection from the Rectum.

GEORGE H. NOBLE.

6. Plastic Surgery of the Female Urethra, with a Report of a Unique Case. HENRY P. NEWMAN.
7. Observations of Some Recent Cases of Orthodontia. E. A. BOGUE.
8. Electric Ozonation in Neuralgia. G. LENOX CURTIS.
9. Results Obtained in the Treatment of Acne by Exposure to the X-rays. R. R. CAMPBELL.

1.—Kelly recommends the knee-chest posture in operations upon the vesical ends of the ureter. The advantages which are obtained are, that the opening into the bladder may be made in a few seconds and can be extended from the cervix to the urethra so as to include the entire base of the bladder. In some cases after catheterizing the ureters a wide lateral incision, or 2 incisions, can be made to secure a still wider exposure and render the remoter parts of the bladder more accessible. At the same time the perineum may be retracted with a Sims' speculum. An excellent inspection of all parts of the bladder is afforded by means of a large cylindrical speculum, 12 cm. in length and about 3 cm. in diameter. [W. A. N. D.]

2.—Kipp discusses the treatment of serpiginous ulcer of the cornea. [F. J. K.]

3.—McReynolds writes on the nature and treatment of pterygium. His operation is a modification of that devised by Desmarre, but it differs in some very important features and these differences constitute the most important elements of its value. The operation is as follows: (1) Grasp completely the neck of the pterygium with strong but narrow fixation forceps. (2) Pass a Graefe knife through the constriction and as close to the globe as possible and then, with the cutting edge turned toward the cornea, shave off every particle of the growth smoothly from the cornea. (3) With slender straight scissors divide the conjunctiva and subconjunctival tissue along the lower margin of the pterygium, commencing at its neck and extending toward the canthus, a distance of $\frac{1}{4}$ - $\frac{1}{2}$ inch. (4) Still hold the pterygium with the forceps and separate the body of the growth from the sclera with any small noncutting instrument. (5) Separate well from the sclera the conjunctiva lying below the oblique incision made with the scissors. (6) Take black silk thread armed at each end with small curved needles and carry both of these needles through the apex of the pterygium from without inwards and separate from each other by a sufficient amount of the growth to secure a firm hold. (7) Carry these needles downward beneath the loosened conjunctiva lying beneath the oblique incision made by the scissors. The needles, after passing in parallel directions beneath the loosened lower segment of the conjunctiva until they reach the region of the lower fornix, should then emerge from beneath the conjunctiva at a distance of about $\frac{1}{8}$ - $\frac{1}{4}$ of an inch from each other. (8) With the forceps lift up the loosened lower segment of conjunctiva and gently exert traction upon the free ends of the threads, which have emerged from below, and the pterygium will glide beneath the loosened lower segment of the conjunctiva; the threads may then be tied and the surplus portions of thread cut off, leaving enough to facilitate the removal of the threads after proper union has occurred. [F. J. K.]

4.—Suker writes on clinical and experimental observations with reference to corneal opacities and other ocular lesions and the effect of thiosinamin in the treatment of these conditions. He states that this drug is indicated in the following class of cases: (1) Corneal opacities from any cause whatsoever. (2) Cicatricial contractions of lids following trachoma. (3) Certain intra-ocular inflammations, as exudative choroiditis. (4) Symblepharon. (5) Capsular opacities following cataract extractions (experimental). (6) Ectropion, especially cicatricial. (7) Plastic iritis. Its actions are the following: (1) It is a marked tonic. (2) It favors the absorption of exudates, transudates and infiltrates. (3) It clears up corneal nebulæ.

(4) It produces local reactions without general systemic disturbances. (5) It reduces glandular swellings. (6) It causes cicatricial tissue to become soft and pliable.

[F. J. K.]

5.—Noble describes a new operation for complete laceration of the perineum, the advantages of which are, he claims, the removal of liability to infection and percolation of fecal matter from the rectum; the avoidance of rectal stitches with the pain, distress, ulceration and cicatrization incident to such sutures; it is applicable to all cases, does not distort the vagina or turn a lot of cicatricial tissue into the rectum, and is devoid of the tediousness of dissecting flaps; it permits early evacuation of the bowels without jeopardizing results; it is practically bloodless; and it is easy to perform. [W. A. N. D.]

6.—Newman describes a method of plastic surgery of the female urethra which he says can be done at one sitting, closing the bladder and furnishing a urinary tract, with a strong probability of a successful issue. The possible sources of failure might be an insufficient collateral circulation in the uterus, which is separated from its posterior attachment, and the uncertainty of inducing sphincter-like control of the circular fibers of the cervix uteri.

[W. A. N. D.]

7.—Bogue contributes an illustrated article entitled observations on some recent cases of orthodontia. The author emphasizes the following points: (1) That a perfectly arranged lower arch in ordinary cases guides the teeth of the upper arch into their proper positions and holds them there without additional appliances and, even when the temporary teeth are irregular, operations to correct deformity may be begun almost as soon as the first permanent molars and incisors make their appearance. (2) These operations may be almost or quite painless. (3) They may be accomplished with great rapidity and with such certainty that absence through unexpected sickness or protracted journeyings scarcely interrupts the orderly progress of the work. (4) This may be accomplished with no perceptible detriment to the teeth. (5) The regulating fixtures themselves may be retained as retainers weeks or months after they have finished their corrective work. (6) Retaining plates may be inserted that retain lower teeth in position so surely that, as a rule, no retainer is needed above, if strict attention is paid to the proper occlusion of the teeth. (7) These retaining fixtures may touch the teeth so lightly that, even if they are worn continuously without removal, the teeth can be as thoroughly cleansed around them as though the retaining fixtures were not in place. [F. J. K.]

8.—Curties writes on electric ozonation in neuralgia.

[F. J. K.]

9.—Campbell reports results obtained in the treatment of acne by exposure to the X-rays, reporting 15 cases, in all of which, with one exception, satisfactory results have been obtained. Reduction in pus formation is supposed to be due to the atrophy produced by the rays. The cases reported are not selected but reported as they occurred. [J. H. G.]

AMERICAN MEDICINE.

August 2, 1902.

1.—The Principles Underlying the Repair of Cystocele and an Operation Founded Thereon.

EDWARD REYNOLDS.

2. The Significance of Postoperative Pleurisy: its Relation to Pulmonary Embolism. G. BROWN MILLER.

3. A More Rational Method of Passing the Suture in Fixation of the Kidney. MAX BROEDEL.

4. The Report of Two Interesting Cases of Foreign Body in the Stomach, with Remarks upon an Unusual Accident with the Stomach-Tube.

JULIUS FRIEDENWALD.

5. Adenoma of the Nose, with Incipient Sarcomatous Metamorphosis. EMIL MAYER.

6. Diagnosis of Cancer of the Breast.

ALFRED ROULET.

7. Intestinal Obstruction. EDWARD A. BALLOCH.

8. Surgical Observations in Berlin. I. Professor Hoffa's Orthopedic Work. II. Professor Sonnenburg and his Appendicitis Work at the Moabit Hospital.

NICHOLAS SENN.

1.—Reynolds bases his operation for cystocele upon two essential points underlying the repair of this condition. He states that the natural supports of the anterior wall should be utilized instead of simply denuding and gathering together the overstretched portions. Second, that the overstretched portion of the wall should actually be excised. These objects should be attained without the necessity of an extensive or severe operation. Reynolds describes the technique of his method with illustrated drawings. He has performed the operation 6 times with only one result that was not entirely satisfactory. (T. L. C.)

2.—Miller discusses the significance of postoperative pleurisy and its relation to pulmonary embolism. His paper includes the study of 16 cases of postoperative pleurisy from the gynecological wards of Johns Hopkins Hospital. He concludes that pleurisy is, in a certain number of cases, the result of pulmonary embolism. This is especially true in that form of the disease which occurs after operation or labor, with sudden onset, pain in the chest and dyspnea which is of limited extent and without known cause. In such cases the possibility must be borne in mind of the occurrence of a fatal pulmonary embolism of which the first is a precursor. Precaution should be taken to prevent any unnecessary muscular movement of the patient until the danger of embolism is past. (T. L. C.)

3.—Brödel describes the method of passing the suture in fixation of the kidney. The principle of his new suture, applicable not only to the kidney but to any other friable organ, is as follows: (1) The direction of the suture is not parallel to the framework of the cortex, but at right angles to it. (2) The fibrous capsule, being the most resistant structure, is utilized instead of the kidney substance itself to furnish the main support for the suture. (3) The suture is passed in a triangular manner through the cortex so as to leave two suture bridges on the surface of the kidney. The bridges bear the brunt of the work, and traction on the suture is borne by them instead of by the circulatory or secretory structures of the kidney. To make this suture tear, the bridge must pull the fibrous capsule into the cortical substance of the kidney, a procedure requiring considerable force. (T. L. C.)

4.—Friedenwald reports 2 cases of foreign body in the stomach. In one case the patient suffered from extremely dilated stomach due to the cicatrization of an old ulcer. In the treatment a part of the stomach-tube had become detached and was swallowed. A pyloroplasty operation was finally undertaken for the relief of the gastric dilatation and for the removal of the tube with the complete restoration of the patient's health. In the second case a broken stomach-tube was removed by means of gastrotomy. (T. L. C.)

5.—Balloch reports 3 cases of intestinal obstruction and from a study of these cases presents the following conclusions: (1) Early diagnosis is the main factor in the saving of life in cases of bowel obstruction. (2) Acute intestinal obstruction is characterized by symptoms which should be recognized with reasonable certainty in the majority of cases. (3) If obstruction probably exists, cathartics should be withheld. (4) Chronic, slowly increasing obstruction may at any time become acute. (5) Surgical advice should be sought early. (6) In true obstruction the only remedy is surgical intervention. (7) The choice of operation depends upon the condition of the patient. (8) Whenever possible the cause of the obstruction should be radically removed. (9) Beyond question, in the last stages, and probably in doubtful cases, the proper plan is to establish a fecal fistula and thus gain time to get the patient in condition for more radical operation. (10) General anesthesia is a distinct element of danger in operative cases, and, when a fecal fistula is to be established, local anesthesia should be used by preference. (T. L. C.)

August 9, 1902.

1. Treatment of Calculus of the Lower End of the Ureter in the Male. HUGH H. YOUNG.

2. The X-ray Treatment of Carcinoma.

WALLACE JOHNSON and WALTER H. MERRILL.

3. A Note on the Ophthalmoscopic Appearance of the Normal Fovea. HOWARD F. HANNSELL.

4. Epiphenomena of Cerebral Hemorrhage.
F. SAVARY PEARCE.
5. A Case of Secondary Anemia of the Pernicious Type
Associated with Marked Jaundice: Rapid Recovery.
ELEANOR C. JONES.
6. A Consideration of the Etiology of Mucous Colitis.
JOHN A. LICHTY.
7. Salsomaggiore. G. SANDISON BROCK.

1.—Young contributes a paper on treatment of calculus of the lower end of the ureter in the male. He reports 4 cases. In case 1 the calculus was impacted in the left ureter for probably 27 years. It was removed by extraperitoneal ureterolithotomy through an iliac incision and intravesical ureterotomy for stricture of the lower end of the ureter; cure followed. In case 2 the calculus was impacted in the intravesical orifice of the ureter. It was detected by the cystoscope and extracted by means of a ureter-catheter-cystoscope. In his third case the calculus was impacted in the right ureter about 2 cm. above its lower orifice. This was demonstrated by the catheter cystoscope and X-ray photograph. The calculus completely disappeared after the water-cure. In Young's fourth case, 3 large calculi were removed from the lower end of the left ureter through an extraperitoneal (iliac) incision; recovery followed. This paper contains a review of the literature of the subject with some general considerations of the anatomy and pathology. [T. L. C.]

2.—Johnson and Merrill discuss the X-ray treatment of carcinoma. The paper gives the results of a treatment in 27 cases. Of 16 cases of epithelioma 10 are apparently cured, 4 show improvement and only 2 cases failed to derive benefit from the treatment other than alleviation of pain and diminution of discharge. None of the 7 cases of inoperable carcinoma showed any improvement beyond relief from pain. One case of lupus vulgaris gave as good result as any of the epithelioma. Two cases of fibroma showed no improvement. [T. L. C.]

5.—Jones reports a case of secondary anemia of the pernicious type associated with marked jaundice. The case was of interest because of the remarkable rapidity with which the very alarming symptoms and grave changes in the blood developed, and because of the equal rapidity (2 months) with which restoration was accomplished.

[T. L. C.]

6.—Lichty deals with the etiology of mucous colitis. His paper is based on the study of 21 cases of which 17 were in females and 4 in males. The males all had splachnopsosis. Two patients traced the beginning of the disease to an attack of typhoid fever. Five patients were lithemic. In all of these cases there seemed to be some metabolic disturbance with the passage of mucus. Uric acid crystals were always plentiful in the urine and the indican was present in abnormally large amounts. The gastric secretion was studied in 8 of the cases, in 4 it was hyperacid, in 2 it was normal, in one it was hypo-acid and one had achylia. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

April 17, 1902.

In Commemoration of April 20, 1902.

ERNST von LEYDEN AS A CLINICIAN. RENVERS.
ERNST von LEYDEN AND NEUROLOGY. F. JOLLY.
ERNST von LEYDEN'S WORK IN THE LINE OF HY-
GIENE AND THE CARE OF THE SICK.
GEORGE MEYER.

1. A Determination of the External Lemniscus or the Secondary Acoustic Nervous Tract. RAMON Y CAJAL.
2. Myasthenia and Ophthalmoplegia.
SIR W. R. GOWERS.
3. On the Use of Potassium Nitrate and Nitrite with Chronic Increase of the Arterial Tension.
SIR LAUDER BRUNTON.
4. On the Multiplicity of Disease-producing Secretions from One and the Same Bacterium. CHARRIN.

5. On Attacks of Spasmodic Laughter accompanied by Tonic Spasms and a Tickling Sensation in the Left Arm. W. von BECHTEREW.
6. Contribution to the Study of Infantile Hemiplegia.
G. MARINESCO.
7. On the Cytodiagnosis of Exudates and Transudates. The Origin and the Meaning of the so-called Lymphocytes of the Tuberculous Exudate. The Value of Cytodiagnosis. Preliminary Communication.
V. PATELLA.
8. On Fatal Hemorrhage in Chronic Portal Stagnation.
H. CURSCHMANN.
9. On Icing Heart (Zuckerguss Herz). H. EICHHORST.
10. A Case of Pseudomeningitis. J. DONATH.
11. Concerning the Icterus of Pregnancy. H. BENEDICT.
12. On a Remarkable Case of Pernicious Anemia.
HAMEL.
13. On the Technique of Quantitative Indican Determinations. H. STRAUSS.

1.—Cajal, in a general summary, states that von Guden's commissure is probably composed of 2 commissures: the one lying between the two internal geniculate bodies, and the other chiefly between the posterior corpora quadrigemina. If this is true, the acoustic tract is very similar to the olfactory which has a double commissure, bringing the two olfactory bulbs into functional relation with each other.

[D. L. E.]

2.—To be continued.

3.—Lauder Brunton states that he has had good results from a combination of nitrites and nitrates; and that he considers it useful to try not only nitrites, but nitrates with them in the treatment of chronic arterial hypertension. [D. L. E.]

4.—Charrin states that the substances which produce immunity are chiefly those which are insoluble in alcohol. Their injection causes the production of a substance which withstands a temperature of 55° C., and, in the case of the pyocyaneus, is capable of causing a reduction in its activity. The bacillus producing less pigment, somewhat less ammonia and somewhat less of the substances precipitable by alcohol. It also grows less actively and changes its form. The body that has this influence is not the alexin and is also not the agglutinin. One must consider that it is a hitherto unknown substance or is a latent intermediate body. The more one works with the products of bacterial action, the more numerous one finds them; and a thousand examples might be given of the multiplicity and variability of the disease-producing substances, particularly of the secondary products which are developed from bacteria. The form and type, the localization, etc., of infectious diseases depend chiefly upon this multiplicity and variability. [D. L. E.]

5.—von Bechterew reports an extremely curious case. He has previously directed attention to spasmodic laughter with organic disease of the brain; and has also noted the occurrence of cases of epilepsy in which the attack always begins with laughter, the patient afterwards knowing nothing of the attack or of the laughter, the latter, in these cases, being then automatic. In the case described in this paper, the attacks came on with a feeling of intense tickling in the left arm, which caused the child to go off into spasms of violent laughter; but the attacks were never associated with a disturbance of consciousness. The child, now 15 years old, was well until 20 months of age. She then had an attack of vomiting and loss of consciousness, after an injury; and there were spasmodic contractions of the left leg. The child was unconscious for several hours; and, after regaining consciousness, could not speak. The left side was then entirely paralyzed, and she could not see or hear on the left side. No improvement occurred for more than a year; and there were repeated tonic spasms in the left arm, followed by marked pain. Consciousness was never lost in these attacks, and it was stated by the

mother that even at this early period the child had spasmodic attacks of laughter with these tonic muscular spasms. The child learned to speak when about 3 years old, and also began to use her left arm and leg at about this time. There had been great improvement in the motor sphere since that time, although the left side was ill-developed and showed some contraction. She had shown no psychical changes until about her tenth year. After this period, she had measles, and had attacks of headache with gastric disturbance and disturbance of vision. Since that time the child has not shown quite such a satisfactory psychical development. The attacks were somewhat as follows: The child was observed sitting quietly, when suddenly the left arm was stretched violently to the side. The patient then began to laugh very loudly and excitedly, even after the arm dropped to the side. She was asked why she laughed; and, continuing with her laughter, she said: That she had such an intense feeling of tickling in the left arm that she could not help herself. After less than a minute, the laughter stopped. The child said that she had no vertigo and no disturbance of consciousness during the attack. There was undoubtedly an organic affection of the basal part of the right hemisphere, because of the left-sided hemianopsia and hemianoptic pupillary reaction. The left-sided hemiparesis with contracture of the upper extremity led to the acceptance of the diagnosis of disease in the neighborhood of the posterior part of the thalamus, affecting the optic tract, the motor pyramidal tract and some sensory tracts. This case is to be distinguished from those of epileptic attacks, with spasmodic laughter, in which the patient does not recognize the occurrence of the laughter. [D. L. E.]

6.—Marinesco discusses only the anatomical side of infantile hemiplegia. He has studied seven cases histologically, these cases representing all grades of the affection. As a rule, the paralysis followed infectious diseases, occurring twice after variola. In one case, hydrocephalus was the cause,—an etiology which the author considers not at all rare. In 3 of the 7 cases he found microgyria without meningitis and without areas of softening. In 2 cases there were local changes; in one the etiology was an infectious disease; and in the other it was probably syphilis. In the latter case there were meningo-encephalitic plaques. In 6 cases trauma was the cause; in the seventh, as mentioned, the condition was produced by hydrocephalus. The author notes reduction in the number and size of the middle pyramidal cells and discusses the cause of the atrophy that occurs in the cortex, without being able to give any definite answers concerning it, except that it seems to be associated with and, in some cases, at any rate, probably due to alterations in the vessels, although this is not usually the case. A very common condition in cerebral hemiatrophy is atrophy of the opposite lobe of the cerebellum; in Marinesco's 7 cases this was noted 6 times. The case in which it was absent was the one of probable syphilitic meningo-encephalitis. In addition to the atrophy he found the cells of Purkinje to be atrophied and to have largely disappeared. As to the spinal conditions he notes that the pyramidal tract may be not only atrophied, but also degenerated. [D. L. E.]

7.—Patella believes that so-called lymphocytes found in exudates of tuberculous origin have nothing to do with the lymphocytes of the blood. He thinks that this can be definitely determined by following the course of these exudates from the beginning on throughout a considerable period. One then finds that the cells are really altered endothelial cells, the cytoplasm showing various changes up to complete disappearance. The nuclei of the endothelial cells become free and show various degenerative changes. In order to determine this, it is extremely important that the exudate should be examined in the first few days of its presence; for very soon everything disappears except the nuclei, and then these closely resemble lymphocytes. The

author states that he has also been able experimentally to follow this change from endothelial cells to pseudolymphocytosis. He believes that one can tell by cytodiagnosis the time throughout which an exudate has been present; but he thinks that the so-called lymphocytes are found not only in tuberculous infections, but also in exudates caused by other bacteria. [D. L. E.]

8.—Curschmann presents an extremely interesting clinical lecture based upon a case in a man of 32, who had had repeated gastric hemorrhage, which finally killed him. The author notes particularly that the man vomited the blood forcibly, and that it did not come up easily, as if it were an esophageal hemorrhage. He had, however, never had pain in the region of the stomach; he had no disturbance of gastric digestion; and between the hemorrhages even very indigestible food caused no distress, so that a gastric ulcer was improbable. The spleen was found enlarged, and the liver small; but the patient had no meteorism or ascites. It was decided that the case was one of cirrhosis of the liver, with very extensive collateral circulation between the portal system and the general venous system. The hemorrhage was believed to have come from the stomach and not from the esophageal varices; because in the latter the blood is simply regurgitated, while in this case there was marked nausea and forcible vomiting. The post mortem confirmed this diagnosis. There was no ulcer of the stomach; but a varix was found in the cardiac portion, with a small opening in it, from which blood was issuing. The case was an instance of the fact that cirrhosis may be present for a long time and may even cause death, without any notable evidence of portal stagnation. The post mortem showed no fluid in the abdominal cavity and no meteorism of the intestine. The author mentions 2 other cases in which cirrhosis led to death without signs of portal stagnation. As to esophageal varices, he agrees with Zenker that these are very common in the upper and middle parts of the esophagus in old persons with cirrhosis of the liver; but he has never seen them in the lower third of the esophagus, excepting when cirrhosis of the liver was present. Thirteen of his patients have died with profuse hemorrhage, 12 of them exhibiting esophageal varices. As a rule these hemorrhages are very severe. He has seen only one case in which there were repeated small hemorrhages. Commonly there was no immediate cause recognizable clinically of the hemorrhage to be found; post mortem ulcerations were determined to be the cause. The question, whether varicosities of the lower part of the esophagus can be diagnosed clinically, must be answered with an emphatic no. There is no characteristic appearance of the fluid and even when it comes from the stomach it may have an alkaline reaction. The more important point is the way in which it is brought up, a mere regurgitation strongly suggesting its origin from the esophagus. Esophagoscopy has been recommended in these cases, but Curschmann considers that it is directly contra-indicated. [D. L. E.]

9.—Eichhorst reports a very remarkable case. A woman of 40, who had marked signs of insufficiency of the cardiac muscle, gave the history that she had had rheumatism 5 years before. She had been taken ill, 4 months previously, without definite cause, with the signs of cardiac insufficiency. She had extreme dyspnea, marked cyanosis, pronounced edema and effusions into the pleural cavities. The heart-dulness was enlarged; the outer border of the dulness was at the apex-beat. The heart sounds were pure, but rather weak, the second pulmonary being somewhat accentuated. The pulse was very rapid. There was a hard mass in the epigastrium, evidently the left lobe of the liver. The patient stated that she was five months' pregnant, but no enlargement of the uterus could be determined. The urine contained much albumin. She grew worse and died. Towards death she said that she felt fetal movements. At the post mortem the liver was found enlarged and hard. There was no sign of pregnancy. The

striking part of the post mortem was the discovery that the pericardial cavity was free and contained fluid; but the epicardium was transformed into a thick, stiff, marble-white tissue, which covered the whole of the heart-muscle almost equally everywhere. The red color of the heart-muscle could scarcely be seen at any point. The heart was greatly enlarged. The surface of the epicardium was everywhere smooth. The white coloration ceased sharply above at the origin of the large vessels. The heart-valves were unchanged. The thickness of the epicardium was slightly over 3 mm. The thickening did not advance into the underlying heartmuscle, which itself showed no change. The author suggests that the woman was alcoholic, and that alcoholism was probably the cause of the change in the pericardium. He was unable to find any cases similar to this reported in the literature. [D. L. E.]

10.—Donath reports a case which occurred in a boy of 18. He was operated upon on the 31st. of October (osteotomy of the femur). On the 9th. of November, after having previously done well, he began to vomit. Two days later, he became unconscious and had clonic convulsions. The mouth was drawn to the right; the pupils fixed. The convulsions were localized chiefly in the right side at first, and then in the left. There were signs of the involvement of one lung-apex. Lumbar puncture showed normal fluid. There was no expectoration. Two days later he was shown in the clinic, with a diagnosis of probable tubercular meningitis. He died and at autopsy was found to have had acute edema of the brain, with acute bronchitis and lobular pneumonia due to the influenza bacillus, persistent thymus, slight chronic internal hydrocephalus and chronic edema of the membranes. Fat embolism had been thought of during the course of the disease, but seemed to be excluded by the time of the occurrence of the symptoms and the occurrence of fever. There were no evidences of uremia and that condition was excluded. **Tubercular meningitis had seemed to be the only satisfactory diagnosis.** The post mortem, as noted, showed no meningitis. Severe cerebral symptoms in association with influenza are not very uncommon. It is not impossible that the enlarged thymus had something to do with the severity of the symptoms. The lumbar puncture was of interest because it emphasized the fact that spontaneous coagulation of the cerebrospinal fluid is one of the most important diagnostic points. It did not appear in this case. The difficulties in this case were greatly increased by the fact that there was no epidemic of influenza at the time, and that the patient brought up no sputum. [D. L. E.]

11.—Two extremely striking cases are reported. They occurred in sisters, one 36, and the other 25 years old. The family-history seemed to be entirely negative. The elder of the two, the wife of a teacher, had had marked menstrual pain, sometimes accompanied by vomiting; and it was said that one of these attacks had been accompanied by slight icterus. She was married at the age of 26. She soon became pregnant and, even in the first month, had marked disturbance of the stomach and intense itching of the skin. In the second month there was a notable icterus and the stools were light colored. Labor came on in the seventh month. The child was not icteric, but died after a few days. The itching of the skin and the icterus in the mother vanished very rapidly. They recurred, however, 6 months later, when she was again pregnant. This pregnancy was similar to the first and ended, like it, in premature labor. A third pregnancy was first suspected because of the occurrence of itching. Icterus and premature labor again occurred, the icterus this time persisting for weeks after she was delivered. In the fourth pregnancy she was admitted to the clinic during the fifth month. She was somewhat anemic. The liver was much enlarged, the surface smooth, the consistence increased and the organ slightly tender to pressure. The gall-bladder was not palpable. The spleen was hard and much enlarged. Some rales were heard in the right apex posteriorly. The blood-

examination showed 3,800,000 reds and 7,000 white; hemoglobin 70 per cent. The gastric functions were normal. There was no bile-pigment in the urine; the urobilin reaction was marked. There was no alimentary glycosuria. The physical examination was otherwise negative. All treatment was entirely without effect. At the end of the seventh month the child was born. It was not icteric but died soon after birth. Icterus and itching soon disappeared. The liver and spleen then decreased somewhat in size, the liver remaining hard, but decreasing ultimately to about its normal dimensions. The spleen remained enlarged and hard. The younger sister, who had been married a year, noticed itching of the skin. She then began to exhibit icterus and showed the same general picture as the older sister. Her liver was found decidedly large, but not so hard and not tender. The spleen was not palpable, but was enlarged to percussion. Some bilirubin was found in the urine. Bile-acids were absent. The urobilin reaction was very marked. The hepatic and splenic enlargement and the icterus did not increase notably, and the pregnancy ended with a normal labor. The child lived and was entirely healthy. In a second pregnancy the woman aborted in the second month, before the icterus had appeared. She had, however, the characteristic itching of the skin. **Purely mechanical compression was entirely impossible** in these cases, because the icterus appeared so early. Another not very uncommon condition in pregnancy is acute yellow atrophy; but these cases, of course, were not acute yellow atrophy. There was thought of catarrhal disease of the stomach and intestine; and this was, of course, possible, though the examination of the stomach-functions in the first case was negative. It is a notable fact that in both cases the itching always preceded the icterus by several weeks. This indicates that there was a general disturbance of the liver-parenchyma, such as is often seen in cirrhosis without jaundice. The author, therefore, considers that the damage of the liver-parenchyma was primary in that organ. It was notable that the urine contained only urobilin. The relation of this liver-condition to pregnancy was interesting in connection with the not infrequent nephritis of pregnancy and with other changes occasionally found in distant organs in association with pregnancy. For instance, cases of multiple sclerosis, showing marked exacerbations during pregnancy and being practically quiescent between pregnancies, have been reported. These cases may also throw some light upon vicarious menstrual icterus. Senator notes one case in which there were attacks of icterus, which always lasted 4 days, at the time of the menses; and in which also occurred during the first 4 months of pregnancy, at the menstrual period. These cases are further evidences of the not infrequent family tendency to icteric disorders. [D. L. E.]

12.—Hamel describes a case in a man of 42. The history was practically negative up to April, 1901, when there were gastric symptoms and the general signs of anemia. The patient showed varying diarrhea and constipation. He had a severe hemorrhage from the "nose and mouth" in May, and this symptom had been repeated almost every two weeks since. He had become very pale. The physical examination showed cardiac murmur. The teeth were normal, as was the mucous membrane of the mouth. The stomach was not dilated, contained no free HCl and no lactic acid. The liver was much enlarged, the spleen, much enlarged and hard. The urine contained albumin, indican and urobilin, no casts. The nervous system was normal. The eye grounds showed hemorrhages. The hemoglobin was 25 per cent.; the red cells, 850,000; the polymorphonuclear neutrophils, 3.8 per cent.; the small lymphocytes, 43.5; the large lymphocytes, 12.2; the large mononuclears, 4.2; the myelocytes, 2.1; the eosinophiles, 5.2 per cent. For every 100 white cells there were 12.8 megakaryoblasts and 4.4 normo- or microblasts. There was 1 nucleated red for every 1300 red corpuscles. The anemia increased to the most extreme degree and the patient died on July 30th. The temperature was always slightly ele-

vated. At the time of death, the blood-count showed: Hemoglobin, 10 per cent.; reds, 275,000; whites, 2,400; sp. gr. of the blood, 1024; sp. gr. of the serum, 1021. The small lymphocytes had increased to 51.9 per cent.; the large lymphocytes were reduced to 2.6 per cent. and the large mononuclears to 1.8 per cent. Autopsy showed nephritis and hepatitis of mild grade, cardiac degeneration and enlargement, and red induration of the spleen. The gastric mucous membrane was not atrophied; the bone marrow showed the characteristic color. Microscopical examination of the bone marrow showed normo- and megaloblasts in about equal number and numerous normo- and megalocytes; large myelocytes in large numbers, small lymphocytes, about 25 per cent. Neutrophils and large mononuclears without granulations were very scarce. There were numerous eosinophiles. (To be continued.) [D. L. E.]

13.—Strauss reports a simple colorimetric method for determining the indican of the urine. He uses a separatory funnel, takes 20 cc. of urine and 5 cc. of 20 per cent. lead acetate solution, 10 cc. of this filtrate being introduced into the funnel. Obermayer's reagent (10 cc.), and then 5 cc. of Chloroform, are added. The funnel is repeatedly inverted and allowed to stand for 2 or 3 minutes. The chloroform is then permitted to run off, and the extraction is repeated until the chloroform is colorless. Two cc. of the chloroform extract are then taken and diluted with chloroform until it reaches the color of a test solution of indigotin, of known value. The amount is then reckoned for the amount of chloroform extract. The author states that he has found great variations in different specimens of urine by this method. The test solution is made with one mg. of indigotin in 1000 cc. of chloroform. He finds that normal persons excrete about 2 to 4 mg., (reckoned from chemically pure indigotin), while in some pathological conditions he has found 60 mg., or more. The method can be carried out in about 15 minutes. He finds that the test-solution keeps well, but should be kept in the dark. A possible passage of red pigments into the chloroform was considered by Salkowski to be a very unimportant source of error in the method; and it is clinically found to be very rarely a disturbing factor. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

April 1, 1902.

1. The Surgical Treatment of Puerperal Pyemia.
F. TRENDELENBURG.
2. Extirpation and Regeneration of Long Bones in Osteomyelitis and Tuberculosis. F. BERNDT.
3. The Operative Treatment of Multiple Abscess of the Liver Produced by Cholangitis and Cholecystitis.
M. WILMS.
4. The Entrance of Bacteria Into the Bloodcurrent as a Cause of Urethral Fever.
R. BERTELSMANN and MAU.
5. Insufficient Muscular Tension and Its Operative Treatment. F. LANGE.
6. The Treatment of Erysipelas in a Red Room.
H. KRUKENBERG.
7. The Method and Progress of Finsen's Phototherapy.
A. SACK.
8. Julius Wolff. A. HOFFA.

1.—Trendelenburg believes that puerperal pyemia should be treated by the same methods as those which proved so brilliantly successful in pyemia secondary to middle ear disease, that is to say, the involved venous sinuses should be removed. He gives the history of the various forms of treatment that have been suggested for overcoming this condition, describes the methods of operation for exposing various venous trunks and discusses the indications for the operation. These are essentially the same as the indications in septic meningitis. The first chill is a signal for operation and hesitation is no longer justified. Whether the operation should be performed on the right or left, or both sides, can only be determined by careful physical examination. The frequency of its distribution in 21 necropsies was: bilateral, 14; unilateral, 7 cases. Therefore in all doubtful cases the bilateral operation should be per-

formed. In the more marked cases operation may be successful comparatively late. He mentions the case of a woman, 35 years of age, who aborted in the third month of the seventh pregnancy. A week later the cavity of the uterus was evacuated, and 10 days after this a diagnosis of septic pyosalpinx was made. Tenderness was obtained in the right parametrium, and a tumor was also recognized in this situation. An operation was performed and an abscess in the right lateral ligament evacuated, in the pus of which streptococci were found. Various thrombosed veins were also ligated and extirpated, and for 10 days the patient had no further chill. Then a chill occurred, which was repeated several times, and a second operation was performed. The right spermatic vein was exposed from the lower end of the right kidney downward. A portion of the vein, 5 cm. in length, was resected. It contained a thrombus in which were found streptococci. The patient rapidly recovered and was discharged well. [J. S.]

2.—Berndt reports 8 cases of osteomyelitis and tuberculosis of the bones in which he performed very extensive resection in order to remove all the diseased parts. The details of the cases cannot be satisfactorily given in an abstract, but the essential result was that in all cases a satisfactory restoration of bone occurred, and he therefore concludes that the fear of some surgeons, that, after removal of a large portion of bone, a permanent defect of the bone will persist, is not justified, and that more radical measures will suffice to preserve many limbs and to prevent a corresponding number of amputations or deaths.

[J. S.]

3.—Wilms reports the case of a woman, 41 years of age, who had icterus at the age of 41. There was enlargement of the liver and persistent vomiting. As there was no fever, and as biliary colic was not present, it was difficult to make the differential diagnosis between gall-stone disease and catarrhal icterus. A year later the patient had a second attack of intense icterus, persistent vomiting and fever with acolic bowel movements. A distended gall-bladder could be felt. At the operation numerous abscesses were found in the enlarged right lobe of the liver; the gall-bladder was opened and bile mixed with pus was evacuated. Drainage was employed, all the visible abscesses incised and partly curetted, and in spite of the apparent hopelessness of the case the patient rapidly improved and was able to resume her household duties. The case is therefore one of cholangitis and cholecystitis with multiple abscesses in the liver, cured by operation and drainage. [J. S.]

4.—Bertelsmann and Mau, after mentioning 2 cases of urethral fever in which they had succeeded in demonstrating bacteria in the blood, that they had reported in a discussion of this subject, and in one of which they found the proteus and in the other the pure culture of streptococci, report an additional case in which they again succeeded in obtaining a positive result. This patient, a man, 59 years of age, who had suffered repeatedly from venereal infection, had a long rigid stricture which was only permeable for the finest filiform bougies. The urine showed the changes characteristic of cystitis. Five hours after forcible dilatation the patient had a chill, and the following day had high fever and delirium, then had normal temperature for 13 days, developed persistent high fever and finally died. During the first chill blood was withdrawn and showed numerous colonies of staphylococci and colon bacilli. On the following 2 days the blood was withdrawn and found to be sterile. After the third dilatation staphylococci and proteus were found in the specimens of blood withdrawn. It is interesting to note that the careful bacteriological examination of the urine showed at first staphylococci and colon bacilli and later only staphylococci, corresponding exactly to the condition of the blood. The autopsy showed a recent tear in the mucous membrane of the urethra. The case seems to show that in some at least of the cases of urethral fever the symptoms are due to the penetration of bacteria into the bloodcurrent. Perhaps the mildest forms are due to the entrance of nonpathogenic bacteria, and the severe forms to the entrance of pathogenic bacteria. Careful histological examinations of the tissues showed the presence of endocarditis and changes in the kidneys secondary to bacteriemia; inoculation experiments failed to show any very distinct virulence in the micro-organisms. During proof-reading the au-

thors added a case occurring in a man of 80 years in whose blood colon bacilli and streptococci were found and colon bacilli were also found in the urine. [J. S.]

5.—Lange mentions the case of a girl who, after a severe cut in the forearm, had insufficient muscular force in some of the muscles. This was in part obviated by shortening the tendons of these muscles. Encouraged by this result Lange has applied the same treatment to a variety of other conditions in which the muscles appeared to be too long. The diagnosis of these conditions is somewhat difficult. It can sometimes be established by testing the power of the muscles to lift weights, difference between the two sides being especially significant. Exact diagnosis, however, can only be made by means of an operation. This is at the same time a curative measure. The operation is particularly indicated in club-foot. In these cases, after shortening the tendon, the leg is held by a fixed dressing in a position of overcorrection for about 3 months. The operation that Lange suggests is not resection of the tendon, but rather the insertion of a thread at intervals along the course of the tendon, the thread then being pulled tight, causing the tendon to be thickened, wrinkled and shortened, the particular advantage being that the circulation in the tendon is not disturbed. He mentions an interesting case in a boy of 18 years who suffered apparently from Little's disease, and whose foot, after an operation, assumed the position of *talepes calcaneus*. It was found that the *gastrocnemius* still contracted, and a diagnosis of elongation of the *Achilles tendon* was made. The tendon was shortened and the result was excellent. [J. S.]

6.—Krukenburg has treated 18 cases of erysipelas with red light rays, that is to say, he excludes the chemical rays. In these cases the fever stopped in less than one day in 7; in one day in one case; in 2 days or less in 4 cases; in 2 days and a half in 3 cases; in 6 days in one case and in 7 days in one case. Only one of the patients had any general symptoms and he complained of headache. Krukenburg does not believe that the red rays have any curative effect, but they are the only rays that are not directly injurious. He gives the histories of 14 of these cases.

[J. S.]

7.—Sack, after discussing the principles of *Finsen's phototherapy*, in which he explains why lenses of quartz and water are used in preference to other lenses, because they allow the greatest quantity of the ultraviolet rays to pass through, discusses some of the experiments that have been performed by Finsen and his followers. These show that the ultraviolet rays act as a vigorous irritant to the nervous system. The blood absorbs these rays better than any other tissue. The paper is still unfinished. [J. S.]

8.—Hoffa contributes an obituary note of *Julius Wolff*, the Director of the University Polyclinic for Orthopedic Surgery in Berlin. His most important work was in connection with diseases of the bones and, of course, orthopedics. [J. S.]

April 8, 1902.

1. Bone Marrow and Infectious Disease.

E. FRAENKEL.

2. Investigations upon the Rhodan Combinations.

G. TRUMPEL and A. EDINGER.

3. Subluxation in Congenital Dislocation of the Hip.

W. WALTHER.

4. Lavage of the Stomach with Solution of Nitrate of Silver, a Therapeutic and Diagnostic Effective Cholagogue. F. EHRLICH.

5. The Presentation of "Energeticus" by the Organism.

ADLER.

6. A Peculiar Posture in Hysteria. J. RIEDINGER.

7. *Primula Obconica* as a Cause of Disease. DREYER.

8. The Color Change of the Hair. W. WEINBERG.

9. The Modern Infant Asylums and their Significance for Physicians. SIEGERT.

10. The Nature and Progress of Finsen's Phototherapy.

A. SACK.

11. A Reply to the Article of Schanz on "Behring's Latest Diphtheria Theory." T. AXENFELD.

1. Fraenkel has studied the bone marrow in a number of cases of general infection. In 5 cases of croupous pneumonia he found the *diplococcus* in pure culture in the marrow of the vertebra. In all these cases the bone marrow of the hips was sterile. In 4 cases of streptococcal infec-

tion, in all of which the streptococcus could be demonstrated in the blood, streptococci were only obtained very rarely, with the exception of a case of facial erysipelas and one of pyemia secondary to panarthritides, in which numerous colonies were obtained from the marrow. In a group of cases of diphtheria, streptococci were obtained from the spinal marrow. In a case of phlegmonous inflammation of the forearm with general infection with *staphylococcus pyogenes aureus*, the organism was obtained from the marrow of the ribs and of the vertebra. In some other cases of general infection, due to various causes, streptococci were occasionally obtained from various situations, staphylococci in one case of scarlatina, streptococci in 2 cases of phthisis and staphylococci in 3 cases of phthisis. [J. S.]

2.—Trumpel and Edinger, in conclusion of their article upon the Rhodan combinations, state that sodium rhodanate can readily be given in doses of from .3 to .5 gm. It diminishes the acidity of the urine, causes a diminution in the excretion of uric acid and phosphoric acid and perhaps an increase of the latter in the feces. [J. S.]

3.—Walther reports several cases of congenital luxation of the hip, all studied by the Röntgen rays, and then describes the apparatus employed by Lange in correcting them. This apparatus consists of a belt surrounding the pelvis, to which is attached a guard on the diseased side which covers the whole trochanter. This is so arranged that it tends to prevent the posterior movement of the dislocated head of the femur. It apparently also prevents any increase in the condition. [J. S.]

4.—Ehrlich suggests the following method of treatment in cases in which there is supposed to be diminished secretion of bile. The stomach is first washed with water at a temperature of 40° to 50° C., then half a liter of a 1-10% solution of nitrate of silver is poured in and allowed to run out. Finally the stomach is again washed with hot water. Usually the operation is painless, but after it has been performed several times the liver swells, then gradually diminishes in size, whilst at the same time there is a profuse diarrhea, the stools being grayish-green in color. If, however, the liver does not return to its normal size, the lavage with nitrate of silver is continued. It is probable that a small portion of silver enters the duodenum, causing swelling of the mucous membrane of the ampulla, and when this swelling subsides, the bile flows rapidly into the intestines. He reports several cases illustrating the advantage of the treatment. [J. S.]

5.—Adler discusses the various internal secretions, and believes that a hypothetical substance which he names "energeticus," may be secreted that stimulates the tissues. [J. S.]

6.—Riedlinger reports the case of a man, 40 years of age, who, after a severe fall which rendered him unconscious, developed severe pains in the buttocks, small of the back and the spinal column. When he was able to get up he found it necessary to use crutches. The general attitude of the patient was stooping forward, the knees were bent, the toes turned in and he supported his body by placing his hands upon the thighs. The tendon reflexes were not increased, the skin reflexes were distinctly increased and the patient was somewhat emotional. This condition persisted for nearly 4 years. Upon application of a plaster jacket all the symptoms disappeared, the patient was able to stand up, and the diagnosis of hysteria seemed to be established. The condition may perhaps be called a static insufficiency of the muscles. [J. S.]

7.—Dreyer discusses the poisonous qualities of the *primula obconica* of blue violet. These consist essentially of an erythematous eruption of the skin occasionally associated with slight rise of temperature, the course of which may be chronic or acute. The prevention, of course, is to avoid contact with the flower as much as possible. Treatment consists of washing with alcohol and the application of belladonna or glycerine. [J. S.]

8.—Weinberg mentions 3 cases of syphilitic infection in which, after the secondary symptoms had subsided, the color of the hair changed. The first, a woman whose hair changed from black to dark blonde; second, her husband whose light blonde hair became dark and subsequently gray, and the third, a young man whose hair changed from light blonde to white. [J. S.]

9.—Siegert discusses the dangers of foundling asylums, and believes that they can be greatly improved if the nurses and attendants are more carefully instructed in absolute

cleanliness and the prevention of the transference of infection, especially of the gastro-intestinal tract, from one child to another. The asylum should be always placed in the suburbs of the town, surrounded by a garden and careful feeding according to the direction of a physician should be maintained. [J. S.]

10.—Sack continues his article upon phototherapy. He calls attention to the excellent results obtained in lupus, not only by Finsen, but by others who have followed his methods, and describes the method employed. The technical details of the apparatus and its arrangement are not adapted to an abstract. [J. S.]

11.—Axenfeld insists that there are varieties of the pseudodiphtheria bacillus. [J. S.]

April 15, 1902.

1. A Hitherto Undescribed Localization of Lead Poisoning. G. KOESTER.

2. A Contribution to the Knowledge of Cholelithiasis. J. BOAS.

3. A Small Contribution to the Tuberculosis Question. A. HELLER.

4. A Disease with the Discovery of a Bacterium, Similar to the Typhoid Bacillus, in the Blood (Paratyphus.) A. BRION and H. KAYSER.

5. The Relation of the Bone Reflexes in Hysterical Patients. H. STURSBURG.

6. Refractometrical Blood Investigations.

A. STRUBELL.

7. Acute Pyopneumothorax in Incarcerated Diaphragmatic Hernia. T. STRUPPLER.

8. An Improved Method of Percussion. J. PLESCH.

1.—Köster reports a case of lead-poisoning occurring in a typographer with symptoms extending over 12 years. Finally he began to notice pains in the legs which interfered with walking and he was obliged to give up work. There was no disturbance of sensation; there was, however, severe stomatitis. The toes of the right foot were turned upward and backward, giving rise to an appearance somewhat similar to that of the claw hand. There were reactions of degeneration in the muscles of the right leg. Köster discusses the differential diagnosis between the neurotic form of progressive muscular atrophy and this peculiar localization of lead-neuritis. The paper is still unfinished. [J. S.]

2.—Boas calls attention to the fact that in 1894 he described a tender point in cholelithiasis, over the twelfth dorsal vertebra, 2 or 3 cm. from the vertebral column. Often there is a profuse tenderness over the whole posterior region of the liver. Kehr does not believe that this tender point exists, but Boas has subsequently studied it in many hundred cases, and has been able to demonstrate its existence very frequently. In acute gall-stone colic associated with icterus he has always found it. When the icterus was absent or slight, it was usually present. When the sign, however, was absent in acute attacks, it was never found during the latent stage. The sign is usually best tested by simple digital manipulations. He reports a number of cases in which the sign was present, both during the acute and chronic stages. Special difficulties exist in the differential diagnosis in cases of ulcer of the stomach, cases of enteroptosis and cases of intestinal neuroses. It must not, however, be believed that the differential diagnosis can always be made by the presence or absence of this sign. In regard to the treatment, one of the most important indications is the tenderness of the border of the liver. The disease may be kept latent by long-continued small doses of Carlsbad water. Diet seems to be of little effect, although it should, as a rule, contain laxative food. The method of Moebius of performing mild respiratory movements for 10 minutes 3 times daily, with the breast exposed, may also be of value. Massage for the purpose of combating the constipation is also of value. [J. S.]

3.—Heller mentions the fact that, in the Pathological Institute in Kiel, among the animals, from time to time epidemics of tuberculosis occur which could be traced to a deterioration in the quality of the food. In 713 autopsies on patients dying of diphtheria, tuberculosis was found as an accidental complication in 140. He also mentions the case of a man who, in an effort to remove tattoo marks from his arm, had employed tattooing with milk, and as a result developed lupus. The histological changes were those of tuberculosis. [J. S.]

4.—Brion and Kayser report the case of a girl, 16 years

of age, who had been taken sick with loss of appetite, pains in the left upper portion of the abdomen, enlargement of the spleen and a discharge from the vagina and urethra that contained gonococci. The temperature rose in the evening and this rise subsequently became persistent. The patient had a typhoid roseola eruption, but the serum failed to agglutinate any of the cultures found in the laboratory. From the blood a bacillus was cultured that resembled in some respects the typhoid bacillus. The patient gradually improved. From the genitalia a micro-organism was cultured which resembled in all respects that obtained from the blood. This bacterium was motile, resembling in size and shape the colon bacillus, but not staining by Gram, had a distinct polar staining with carbolfuchsin, grew well on the ordinary media, the colonies on gelatine were sometimes umbilicated and did not resemble those of the colon bacillus. They did not alter milk, fermented dextrose and maltose, and, to a less degree, lactose. It did not form hemolysin, was pathogenic for white mice and young guinea-pigs, but not for rabbits, although it produced in them local abscesses. The organism resembled the paratyphoid bacillus. It agglutinated readily with the blood of the patient and with the blood of animals infected with it, and the serum of those animals also agglutinated other varieties of the paratyphoid bacillus. The case is interesting because, contrary to the doctrine of Schott-Müller, in this form of infection 2 relapses occurred. It is also important in increasing our ability to diagnose different species of the typhoid bacillus. [J. S.]

5.—Stursberg has tested the pharyngeal reflexes in 123 cases of certain hysteria. The tongue was depressed and then the soft palate and the posterior pharyngeal wall struck lightly with some instrument. If then the soft palate was raised and the pharynx contracted, the reflex was regarded as normal. The results were: In 40 men reflex was present in all; in 22 it was normal; in 11 it was increased, and in 7 it was decreased. In 83 women it was present in 69, normal in 36, increased in 16 and diminished 17. It was entirely absent in 14 cases. Expressed in percentage: In 67.4% the reflex was normal or moderately increased; in 19.5% it was diminished and in 11.3% it was entirely absent. The effect of aphonia upon the reflex seems to be practically *nil*. [J. S.]

6.—Strubell has made a series of investigations upon the reflective index of the blood. He first performed a series of experiments upon sodium chloride solution of different concentration, then upon albumin solution obtained by the dilution of acetic fluid in different concentration. He has found that the determination of the refractive index is not a substitute for the determination of the freezing-point. However, it is of course valuable for the exact determination of the proportion of albumin in the blood, and he therefore believes that the refractometer is a valuable addition to our clinical diagnosis. [J. S.]

7.—Struppler reports the case of a man, 22 years of age, who, on the 15th. of November, 1901, just after eating, felt a severe pain in the region of the stomach. Towards evening he had fever and vomited bile and mucus. There was absolute constipation, no difficulty in micturition. One year previously he had been stabbed in the left side and had been obliged to stay in bed for 8 days. Upon examination there seemed to be no marked disturbance of the thoracic organs, the abdomen was distended, the patient had no pain, the swallowing sound was normal. The temperature was slightly elevated and later tympanites developed in the seventh, eighth and ninth intercostal spaces in the mid- and left axillary lines. In this area hippocratic succussion could be heard. The patient died very suddenly. A diagnosis of internal incarcerated hernia was made. The pneumothorax developed very rapidly. At the autopsy a tumor twice the size of the fist was found in the left pleural space, which proved to be a portion of the splenic flexure. The pleural cavity contained gas under pressure. The spleen was slightly swollen and there was purulent fibrinous pleuritis. Bacteriological studies apparently were not made. [J. S.]

8.—Plesch suggests that in percussion the middle finger of the left hand be bent at right angles, placed upon the chest and then percussion made at the first interpharyngeal joint. The advantages are that this method is more precise, and it is possible to obtain the outline of organs deeply placed. He calls it a form of touch percussion.

[J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

April 28, 1902. (39 Jahrgang, No. 17.)

1. A New Local Anesthetic, Para-amido-benzoic-acid-ester. CARL von NOORDEN.
2. A Case of Polyneuritis After Malaria. A. M. LUZZATO.
3. The Question of Hemiplegia. MAX ROTHMANN.
4. The Treatment of Granular and Lateral Pharyngitis. MAX HALLE.
5. A New Method of Investigating the Gastric Functions. SAHLI.

1.—Para-amido-benzoic-acid-ester, now sold as Ritser's anesthesin, proved upon rabbits to have no bad effect when used as a local anesthetic. In colossal doses it produced symptoms resembling those of phenacetine. von Noorden has given it for gastric hyperesthesia, angina, dysphagia, laryngeal hyperesthesia, painful hemorrhoids, vesical irritation in women and in all forms of pruritus. Even upon leg ulcers the anesthetic effect is marked. [M. O.]

2.—Luzzatto reports a case of polyneuritis following quotidian malaria, in a man of 31. Croupous pneumonia developed, with death. At this time no plasmodia were found in the blood. The autopsy showed hepatization of the lower lobe of the left lung, a large, hard, dark spleen and a huge liver. The kidneys were also somewhat sclerotic. The peripheral nerves showed various degenerative changes. No malarial parasites were found post mortem. No other cause for the polyneuritis was found, and the condition of the organs was typical of malaria. The toxic effect of the parasite probably caused the neuritis. Some 40 such cases have already been reported. [M. O.]

3.—Will be abstracted when concluded.

4.—Granular and lateral pharyngitis are the forms most commonly noted. Halle advises the following treatment. When symptoms appear, the cause must be found, plethora, scrofula, alcohol or tobacco, and stopped, while adenoids or nasal stenosis will need operation. Mandl's solution or the insufflation of astringents is advised. When this is insufficient, light cauterization with trichloroacetic acid, chromic acid, argentic nitrate, or the galvanocautery may become necessary. When widespread pathological changes exist, the granulations may be clipped off with scissors. The use of the galvanocautery in its full strength is absolutely contra-indicated. [M. O.]

5.—Sahli gives a test-meal made of 25 gm. of flour and 15 gm. of cooking butter, heated until brown, kept moving while 350 cc. of water are added, the mixture being heated from 1 to 2 minutes. A pinch of salt is added and 300 cc. are taken by the patient, after having his stomach washed out. One hour later this fat emulsion is expressed by the Matthieu method. The 50 cc. of the preparation left are used as a control test for the fat. Titration for the acidity of both solutions is done by the Matthieu formula. The fat is then estimated by the Gerber butyrometer. The free hydrochloric acid, lactic acid, etc., are estimated in the same manner as with other test-meals. The involved mathematics necessary to reach comprehensible conclusions are explained. Sahli believes that this method gives more exact results than any other, all grades of secretion, acidity and motility of the stomach having been diagnosed by it. It shows whether laxatives, belladonna, alkalies, biters or meat-extract are indicated for influencing the motility, secretion or the appetite. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

April 3, 1902. (XV. Jahrgang, No. 14.)

1. Subphrenic Abscess Containing Bile. KARL WEILER.
2. Inflammation in Cavernous Tumors, Venous Angiomata, Etc., Followed by Swelling and New Venectatic Formations. O. CHIARI.
3. Four Hundred Operations for Stone in the Bladder. A. von FRISCH.

1.—Weiler reports the case-history of a woman, aged 45, who had attacks of biliary colic 10 years before admission, with jaundice. Present illness had existed 10 days, with weakness, fever and pain at the border of the ribs on the right side. Nausea, vomiting and constipation followed.

There was marked dyspnea and great pain with respiration. Posteriorly there was dullness from the sixth dorsal vertebra to the liver, with weak breath sounds. Jaundice appeared and bronchial breathing developed, with friction and rales. Exploratory puncture was negative. Then signs of pneumonia appeared anteriorly on the right side. The sputum contained ochre-yellow bits, recognized under the microscope as bilirubin crystals. Death occurred in collapse. Though the diagnosis of abscess of the liver with perforation into the pleura and lung had been made, the autopsy showed a subphrenic abscess between the right lobe of the liver and the diaphragm covering the base of the right lung, with a perforation and right-sided purulent pleurisy, compressing the lung. There were atrophic changes in the bile-ducts and gall-bladder, and gall-stones. Pus from the abscess contained bile. Not only was the diagnosis difficult, but the etiology was interesting, the infection having started in the gall-bladder. [M. O.]

2.—Chiari reports the case-history of a waiter, aged 23, with pain in the throat for years. Upon his ear, lower lip, right side of the palate and ary-epiglottic fold were cavernous tumors, while in the tongue and floor of the mouth were venous plexuses. With fever, there was marked edema of the larynx, and the angiomata became swollen. There was great pain on swallowing. While the acute symptoms subsided, the venous angiomata remained swollen, though not painful. Following this acute inflammation, not only did the old angiomata enlarge, but new venectatic formations appeared near them after the phlebitis. [M. O.]

3.—Will be abstracted when concluded.

April 10, 1902. (XV. Jahrgang, No. 15.)

1. The Present Knowledge of the Origin and Prevention of Tuberculosis. ANTON WEICHSELBAUM.
2. Bacteriohemolysins and Antihemolysins. RICHARD KRAUS.
3. The Effect of Bactericidal Immune Sera. MAX GRUBER.
4. Four Hundred Operations for Stone in the Bladder. A. von FRISCH.

1.—Will be abstracted when concluded.

2.—Kraus gives 3 series of experiments with his conclusions. His first experiments show that bacteriohemolysins are capable of injuring the red bloodcorpuscles not only *in vitro* but also *in vivo*. Thus the anemia of the infectious diseases is in direct relation with the bacteriohemolysins. His second experiments show that, after treating animals with hemolytic poisons, isolysins and iso-agglutinins are not found in the serum when added to a small quantity of red bloodcorpuscles of animals of the same kind. Clinical destruction of the blood causes no isolysin-agglutination in the organism. His last experiments show that immune serum is capable of paralyzing the blood-destroying power of bacteriohemolysins, even in the organism. [M. O.]

3.—Gruber replies to an article by Wechsberg in the last number of this journal, and suggests that, after further experiments carried out by Wechsberg upon the exact lines pointed out, he will discuss the question. [M. O.]

4.—The great majority of surgeons prefer lithotripsy to surgical intervention in vesical calculus. Of the 400 patients treated by von Frisch in 10 years, 306 stones were crushed and suprapubic cystotomy was performed 94 times. His patients ranged from 6 to 87 years, the average age being 68 years. Eighty-seven per cent. were over 50, in contradistinction to the earlier statistics, when the condition was regarded as most frequent in young subjects. But 3 out of the 400 occurred in women. Of the calculi, 100 were composed of urates, 126 of phosphates, 11 of oxalates and 163 were mixed. The bladder showed catarrhal cystitis in 338 cases, while prostatic hypertrophy existed in 258 patients. There was incontinence of urine in over half of the patients. Lithotripsy was performed upon 303 men and 3 women, by the Bigelow method. In 4 cases the proceeding failed. Twenty-three cases were well on the day following operation. The treatment lasted on an average 8 days. Eight patients died, a mortality of 2.6%. Calculi recurred in 19 cases, 8.2%. The details of the technique and after-treatment of 94 cases of suprapubic cystotomy follow. Treatment lasted on an average 27 days. A permanent catheter was left in for drainage. Twelve patients

died, a mortality of 12.7%. There were also 12 recurrences, 12.8%. Unless a contra-indication to litholapaxy exists, it is to be performed for vesical calculus; should any contra-indication be present, suprapubic cystotomy is the operation of choice. [M. O.]

April 17, 1902. (XV. Jahrgang, No. 16.)

1. The Effects of Electricity on Animals. S. JELLINEK.
2. The Agglutination of Red Bloodcorpuscles.
ARTHUR KLEIN.
3. A Scheme for Obtaining Statistics of the Physical and Moral Development of Deaf-Mutes During Their First Year of Life. A. KREIDL and G. ALEXANDER.
4. The Origin and Prevention of Tuberculosis.
ANTON WEICHSELBAUM.

1.—Will be abstracted when concluded.

2.—Klein describes 3 series of experiments upon the **agglutination of erythrocytes**. He used extracts of red corpuscles, serum and pancreas extract. He concludes that substances may be dissolved out of red bloodcorpuscles of some animals, in normal salt solution or distilled water, which cause the agglutination of red bloodcorpuscles. These extracts in some cases agglutinate erythrocytes of other species of animals, erythrocytes of the same species, (iso-agglutinins) and erythrocytes from the same individual, (auto-agglutinins). The bloodserum of some normal animals contains iso-agglutinins and auto-agglutinins. As these may occur in small quantities, a large amount of serum or extract and very few red bloodcorpuscles should be used. These substances must not necessarily be present in the erythrocytes and serum of the same animal species. Some experiments even suggest a sort of antagonism between them. His experiments with pancreas extract favor the idea that these are hetero-agglutinins. While the red corpuscles of rabbits, guinea-pigs, dogs, horses and cattle are rapidly destroyed by an extract of pancreas in normal salt solution, the erythrocytes agglutinated by a normal agglutinating serum, such as chicken serum, show a high resistance to solution in pancreas extract. Erythrocytes which have been agglutinated by the iso-agglutinins or auto-agglutinins of erythrocytes' extract or serum show a similar resistance to solution in pancreas extract. [M. O.]

3.—Kreidl and Alexander have prepared a list of the important questions to be asked the parents or guardians of all **deaf-mute children** before admission to an asylum in Austria. For only in this way will it be possible to separate the true deaf-mutes with normal intelligence from deaf idiots. The future development, both physical and moral, will depend upon a correct, minute, previous history. [M. O.]

4.—Since Koch's discovery, it is generally accepted that the bacillus is the cause of **tuberculosis**. Some people show a predisposition to tuberculosis, which appears to be hereditary. Weichselbaum considers the tubercle bacillus a streptothrix. The "acid-fast" bacilli found in milk, butter, etc., are probably saprophytic relatives of the tubercle bacillus, which they resemble. The tubercle bacilli of fowls are also related, but are not identical with those of cattle or man. Tubercle bacilli do not form spores. It but rarely happens that tubercle bacilli enter the female organism with spermatozoa; nor is tuberculosis common in newborn infants. But cases are recorded in which tubercle bacilli reached the fetus through the placenta. It is not impossible or improbable that bovine tubercle bacilli cause general tuberculosis in man, though they usually cause lupus and other forms of skin tuberculosis. Statistics show that tubercle bacilli enter through the tonsils much more frequently than was supposed. But the lungs and bronchial glands are most often affected. In making a diagnosis, the presence of bacilli is of value. The difference between bovine and human tuberculosis cannot be much greater than the difference between the 2 tubercle bacilli. In the prophylaxis of tuberculosis, sputum from all suspected cases should be examined early, and if possible the tuberculin test tried. All cases and deaths of tuberculosis should be reported. To prevent its spread, sputum and other excreta, and the vessels containing them, should be disinfected; patients in advanced stages should be isolated; and others should be sent to sanatoria for the best treatment. To prevent the spread of bovine tuberculosis, the tuberculin test should be tried on all cattle, milk and cream from suspected cows being sterilized and only then used for but-

ter; all milk and milk products should be examined for tubercle bacilli, and tubercular beef should not be sold. To prevent a predisposition to tuberculosis, tubercular patients should not marry; children of tubercular parents should be removed from them; such children should be brought up in the air, with especial attention to hygiene, exercise, little confinement, etc. [M. O.]

ZEITSCHRIFT FUER HEILKUNDE.

April, 1902. (Volume 23, No. 4.)

1. Cavernoma of the Spleen. HANS ALBRECHT.
2. Endothelioma of the Dura Mater With Vesical Metastases. EDWIN LINDNER.
3. The Secondary Changes in Uterine Fibromyomata.
von JACOBSON.
4. The Growth of an as yet Unknown Aspergillus in the Bronchial Tubes of a Diabetic. FRANZ LUCKSCH.
5. Hepatic Cirrhosis and Stasis.
VICTOR EISENMENGER.

1.—Primary neoplasms of the spleen are very rare. A review of the entire literature gave but 11 cases of **cavernoma of the spleen**, and of these 2 were doubtful and 2 occurred in animals. Albrecht reports a case of multiple cavernomata of the spleen, found at autopsy in a man of 65, who died of diffuse sanguinopurulent peritonitis. But 5 trabeculae containing veins were found, though the number of follicles seemed increased. The cavities were lined with peculiar epithelial cells and contained blood. There was no increase in the connective tissue. These cavities were formed by the capillaries of the splenic pulp. No splenic pulp was found between the cavity and the Malpighian corpuscles, the bloodvessels being next to them. The cavities were connected by bloodvessels. These capillaries, lined with cylindrical epithelium, became veins, lined with cuboidal epithelium, further on. Albrecht believes that, because an absence of veins existed at the beginning, those present dilated, and, as there were but few of them to carry off the venous blood, the circulation in the spleen was retarded. Thus the cavity formation is physiologically explained, and a cavernoma is not a true tumor. The early stasis explains the change in the type of epithelium noted. These cavities are the dilated capillary veins described by Billroth. [M. O.]

2.—Lindner reports a case of **endothelioma of the dura mater** in a man of 63. He complained for some months of pains in the legs and back, girdle pains, insomnia, constipation, vesical disturbances and ataxia. Later cystitis became apparent and an abdominal tumor developed. No signs pointed to a cerebral tumor. Yet the autopsy revealed 2 tumors in the bladder and an endothelioma of the dura mater over both frontal and the right parietal regions, causing slight cerebral compression and edema, and thoracic peripachymeningitis. Microscopical examination showed the vesical tumors to be endotheliomata, rising from the endothelium of the bloodvessels, metastases from the dura mater. Such a condition is very rare. The prognosis of dural endothelioma is always unfavorable. [M. O.]

3.—Fibromyomata commonly show necrosis of the muscle fibers, cartilaginous degeneration, edema and hyaline degeneration of the connective tissue. Rarer secondary changes are fatty and fibrous degenerations. von Jacobson reports a case of fibromyoma of the uterus in a woman of 80, which had become a fibroma, as was noted at autopsy. Glandular cysts were found in the uterine mucosa at the periphery of the tumor. A second case showed a **lipofibromyoma** of the uterus in a woman of 67. [M. O.]

4.—Bacteria seem to flourish exceptionally well in diabetic patients. After reviewing the many **micro-organisms** already found upon **diabetic patients**, Lucksch gives the autopsy of a man who died in diabetic coma, with a perirectal abscess. The autopsy showed atrophy of the pancreas, renal steatosis, cataracts of both eyes, catarrhal bronchitis, bronchopneumonia and mycosis of the trachea and bronchi. The fungus in the bronchi was pronounced an aspergillus by Molisch and Blumentritt. It was aerobic, grew best at 32°C. and liquefied gelatine. It was pathogenic in fowl and pigeons; not in rabbits or guinea-pigs. He calls it **aspergillus bronchialis**. [M. O.]

5.—After quoting the opinions of many observers upon hepatic cirrhosis, following venous stasis, Eisenmenger reports an autopsy upon a man of 49, who had had marked circulatory symptoms for 6 weeks. Aneurysms of the ascending aorta and transverse arch were found, with dilatation and hypertrophy of both ventricles and the right auricle. The veins were all dilated, especially those of the neck. Yet the liver showed no cirrhosis. In another very similar case no increase in connective tissue could be found anywhere, in spite of high-grade stasis. Theory, experiment and observation speak directly against stasis as the cause of cirrhosis of the liver. Eisenmenger concludes that the liver sometimes shows a granular tendency with stasis, either in hypertrophy in young subjects or in embolic atrophy. This induration may be due to stasis. While true cirrhosis, increase in the connective tissue of the portal veins, is often found with stasis and the induration consequent upon it, Eisenmenger objects to the terms cardiac or stasis cirrhosis, since stasis never causes cirrhosis. Ascites, when it occurs, is not the result of hepatic stasis, since that does not cause any change in the portal circulation and is not accompanied by cirrhosis. [M. O.]

LA PRESSE MEDICALE.

March 22, 1902. (No. 24.)

1. Genital Anomalies. HENRI ROGER.
2. Tubercular Sero-Agglutination. E. RUMP and L. GUINARD.
3. The Treatment of Neurasthenia. R. ROMME.

1.—Three varieties of true hermaphrodites exist, bilateral, unilateral and lateral. Such cases are very rare, most known cases of hermaphroditism being pseudohermaphrodites. Roger reports the case of a supposed young man of 17, who died one hour after admission to the hospital, of diphtheria. He was small, feminine in appearance, with large mammary glands, a penis, 3 cm. long, but normal in detail, situated further back than normal, the pubic hair arranged in a triangle as in females, a scrotum with some hairs, but no testicles. The autopsy revealed uterus, Fallopian tubes and one cystic ovary. The larynx was like that of a woman, and a large thymus gland was found. The vagina had no external opening. [M. O.]

2.—Rump and Guinard investigated the agglutination reaction of the bloodserum of 107 patients with pulmonary tuberculosis. Ninety-two of them gave the reaction, 17 at 1 to 5 only; 12 at 1 to 10; and 63 at 1 to 15 or higher. Twenty of these patients were already cured and of them 8 gave negative reaction, 8 agglutinated only at 1 to 5 and 4 at 1 to 10. Five patients treated with Koch's new tuberculin for 10 days gave the reaction at 1 to 100. This seems in no way dangerous, no bad effects having occurred from its use. [M. O.]

3.—As neurasthenia may occur with hypertension or with hypotension, the treatment of the condition varies. When hypertension exists, milk diet, no liquids at meals, massage, warm vapor baths and normal salt solution hypodermoclysis are indicated. When hypotension exists, good food, meat, rest with regulated exercise, douches, salt bath, oxygen inhalation, deep massage and saline injections are of use. [M. O.]

March 26, 1902. (No. 25.)

1. Morphinomania. DEBOVE.
2. Statistics from the Durtol Sanatorium. CHARLES SABOURIN.
3. The Prophylaxis of Purulent Conjunctivitis. A. TROUSSEAU.

1.—Debove reports the histories of 2 cases of morphinomania. One was in a woman of 48, who in 1895 was given morphine, 2 cgm. daily, for abdominal pain. She continued its use, having reached 10 cgm. a day. Her treatment consisted in gradually withdrawing the morphine until she

was taking none at all. The other case was in a physician, who first took morphine for rheumatism. He took 2 or 3 cgm. daily. A lecture upon the physical and moral condition of the morphinomaniac and his pitiable future caused him to stop its use abruptly. He admits that he has again employed morphine during intervals of pain, but that he is able to stop when he desires. [M. O.]

2.—Out of 250 phthisical patients at Durtol, 150 were curable, the rest incurable. Of the 150 curable patients 41 are still living, but have not yet been cured. Of the 100 incurable patients only 21 are still living. Of the entire 250, 94 recovered, but 10 of them relapsed, leaving 84 permanent cures, 34%. Sixty-two, or 25%, are still alive uncured. Of the 84 cured, 14 had slight lesions only; 56 had lesions of the second stage; and 24 had advanced to the third stage. [M. O.]

3.—In the prophylaxis of purulent conjunctivitis, which is generally gonorrheal in character, great care must be taken not to contaminate the eye with pus from the urethra or vagina. In purulent ophthalmia neonatorum the eyes of every infant are first washed outside with mercury cyanide or bichloride, 1-20, and a drop of a 2% silver nitrate solution is dropped into each eye. This, Cr  de's method, has greatly decreased the number of cases of gonorrheal ophthalmia in infants. [M. O.]

JOURNAL DES PRATICIENS.

March 29, 1902. (16me. Ann  e, No. 13.)

1. Hysterical Angina Pectoris. MERKLEN.
2. Premature Infants. L. HAHN.

1.—Pseudangina pectoris may complicate chronic aortitis, but is most often noted in young individuals before arteriosclerosis has developed. Hysterical angina may follow excitement, fatigue, disease or the menopause. Attacks occur spontaneously, frequently at night, with a neuralgic, vasomotor or cardiac aura. There are precordial areas of hyperesthesia, the pain radiating from them. Dyspnea, esophageal or glottic spasm may follow. The histories of 2 patients are reported, one a young man, the other of an old woman, both instances complicating an organic heart lesion. In the treatment, isolation, rest, arsenic and phosphates are indicated for neurasthenics; iron for those with anemia; alkalies, lithium and vegetables for the gouty. When heart disease exists, precordial counterirritation is of service. In the attacks, bromide, valerian, amyl nitrite, antipyrin, etc., are good, morphine rarely. A change of air and bathing may help. [M. O.]

2.—Premature infants show debility, either from deformity, intoxication, protoplasm of a poor quality, or an insufficient amount of protoplasm. The temperature of these children is generally below normal for some time, therefore they more easily contract disease. Gastro-enteritis may occur, due to passive hyperemia or to incomplete digestion, feeble gastric musculature or gastric dilatation. It may be severe, with hemorrhages. Infantile atrophy, thrush, jaundice, atelectasis, cyanosis, pneumonia, edema, scleroma, omphalorrhagia, uremia and various infections all commonly develop. The differential diagnosis between bronchopneumonia and some general infection in such children is very difficult. [M. O.]

The Serum Reaction in Tuberculosis.—Masius and Beco have reported a great number of experiments upon animals and their subsequent clinical investigations in the *Bulletin de l'Academie de M  decine de Belgique*, for February, 1902. After giving long tables of statistics and reviewing the work of Arloing and Courmont, they conclude that Arloing's seroreaction is not pathognomonic of the existence of tuberculous infection. For, while commonly found in the first stage of phthisis, acute miliary tuberculosis and tubercular pleurisy, it is less frequently obtained in the second and third stages of the disease. It was found in influenza, typhoid and pneumonia, also. Yet early in phthisis and acute miliary tuberculosis positive sero-agglutination, at a sufficiently high dilution, may be considered a valuable yet not a certain element in the diagnosis.

[M. O.]

Original Articles.

PHYSIOGNOMY.

By W. ARBUTHNOT LANE, M.S., (Lond.), F.R.C.S. (Eng.)
of London, England.

Surgeon to Guy's Hospital, Hospital for Sick Children, London, etc.

Gentlemen:—I know nothing of greater interest than the study of the physiognomy of the race, which practically resolves itself into a consideration of the mechanical factors that determine the form of the bones of the face. It is of interest not merely from an esthetic point of view, which is of vital importance to the sex most liable to suffer from conditions of imperfect development of that part of the body, but the knowledge of the modification of the several factors upon which the face depends for its development assists one most materially in obtaining a scientific insight into the morbid states associated with variations in it.

The form of the face of the individual is influenced more or less by that of one or both parents from the hereditary factor. We will consider in their order of importance the several forces that exert an influence on the form of the bones of the face and of the cavities they surround.

By far the most important factor in the form of the face is the degree of development of the nasopharynx. When in a child the nasopharynx is fully developed, the upper jaw and the antral cavity it contains are correspondingly large. The lower margin of the orbit and the anterior and lateral aspects of the upper jaw are prominent and rounded, the malar bones project outward, the alveolar arch is horse-shoe shaped, the palate forms a long gentle sweep, being almost completely horizontal above the alveolar level, the lower jaw is correspondingly well developed, the lower incisors, in biting, close at no great distance behind the upper, the mouth, which is of fair size, is kept closed habitually, the upper lip covering the upper incisor teeth and projecting below their free margin, the nose is fairly broad, while the nostrils are, widely open, oval and move appreciably even in ordinary respiration. The hair on the forehead ends abruptly and the back is almost quite free from down. The chest is well developed and respiration is free, the measurement of the thorax varying decidedly during the process, which is normal in frequency. The child displays all the qualities which we are accustomed to associate with what is called health and these I need not enumerate further. A good volume of air passes constantly freely and forcibly along the nasopharynx and it is chiefly on the presence of this mechanical influence that the nasopharynx and the bones of the face depend for their full development. But such a condition as I have just described is by no means as general as one would wish. Indeed, in large communities and even among whole races a very decided change can be observed to be taking place with comparative rapidity in consequence of peculiar conditions of life. Civilization entails a considerable modification in the mechanical relationship of the individual to its surroundings as

compared to that which existed originally in the human animal and we pay a very heavy toll for the possession of the advantages or disadvantages associated with it. We will now examine the several alterations in the physiognomy of the individual which result from an imperfect development of the nasopharynx consequent on a deficient passage of air through the nasal cavities or on the complete absence of this force. Instances of these conditions exist only too abundantly all round us and I will proceed to describe a typical example and its mode of development. At birth the child's face and the structure of its nasopharynx and of the bones of the face are normal. It is most unusual to see any variation from this at this period of life. On rare occasions I have noticed the arch to be markedly higher than it should be, and very occasionally one comes across cases either of imperfectly developed or of excessively large lower jaws. In a child who had neither nose nor anterior nares and in whom the nasal cavities must have been very badly developed, the palate presented the mesial elevation which so often appears later in life from a similar cause. The vast majority of children are perfectly normal at birth and continue to develop normally during the first, second and generally during the third year of life.

It is at the end of this period that changes in the form of the face and especially of the jaws and palate usually first attract notice.

For some reason or another the child has become less vigorous. It may have been badly fed or kept frequently in a foul, close atmosphere or it may have had some fever, as scarlet fever, measles, whooping cough, etc. From whatever cause the depreciation has arisen, it is remarkably inactive or, if it displays activity, it tires very soon. It assumes habitually attitudes of rest whether in the erect or sedentary posture, these after a time becoming fixed and producing deformities which have received recognized names, as dorsal excurvation, lateral curvature, knock-knee, flat-foot, etc.

Breathing is abnormally rapid and very superficial. It is practically entirely abdominal under ordinary circumstances. The circumference of the chest, which occupies a position of complete expiration, shows no variation whatever during respiration. The skin of the body is pale and opaque. The back is covered, especially in the median line and in the vicinity of the scalp, with a fine downy hair. This also exists on the backs of the arms and forearms. The veins on the chest and shoulder are conspicuous and are filled with a dark venous blood. Pressure on them appears to produce no movement of the blood, which seems to be quite stagnant. The skin of the trunk, legs and arms is marked off into innumerable little islands, because of the stagnation of the blood in the small vessels. In the cheeks minute bloodvessels can be distinctly observed making up what patch of color the child may possess. The hands and feet are abnormally cold and, if the weather is not warm, the skin of the hands and forearms is patchy, in some parts yellow and in others a livid purple. The ears are also cold and bluish.

The joints are very loose, the elbows readily extending considerably beyond the normal, so that the forearm forms with the upper arm an angle open backward and the leg an angle at the knee open forward.

Any point on which even very slight pressure by the clothes is habitually exerted shows deposit of pigment in the form of a dirty stain. This is noticed especially around the neck, on the folds of the axillæ, along the spinous processes and on places on which the garments rub more than elsewhere.

These children hold the head well forward because of the flexion of the spine associated with the position of complete expiration of the thorax.

The hairy scalp presents no sharp outline in front, but encroaches on the forehead to a varying extent, in some children extending to the outer limits of the eyebrows. There is a deep hollow beneath the lower eyelid, where the skin is bluish in color. The breadth of the face is less than normal and the cheeks are flattened. The form of the nose varies widely from the original shape inherited from its ancestors. If prominent, it is very much flattened laterally, its sides concave and it appears to spring abruptly from the face, or, if broad-based, it is hollowed laterally and vertically. The anterior nares form elongated, narrow slits which show no appreciable alteration in shape during the movements of expiration.

Owing to the frequent tilting of the tip of the nose, the nostrils look more forward than in the normal condition. The upper lip is short. The mouth is kept open and the lip covers only a portion of the upper teeth, which are in young life freely exposed. Later, in adult life, by the exercise of the will, the individual may, and often does, acquire the power of keeping the mouth closed except when smiling or talking. The chin recedes to a variable extent and on approximating the jaws in the normal bite the lower incisors occupy a position behind the upper that is further back than usual. If this is a marked feature, the condition is described by the dental surgeon as "superior protrusion." When marked, it detracts considerably from the attractiveness of the face, but in a moderate degree only, it, with the associated evidences of degeneration and of physical incapacity, gives to the face that appearance which by novelists and poets is regarded as intellectual or refined. The curve of the imperfectly developed upper lip, as it stretches over the protruding teeth, is described as Cupid's bow. I feel I must refer you for further description to the works of these very unscientific professions who seem to see things from a sensual and imaginary rather than from an intelligent and accurate standpoint.

Still, the fact remains that to a considerable proportion of our fellow-creatures the indications of degeneration, when existing in a moderate degree, are considered to be attractive, especially in the case of the female subject. Another very good instance of this is the manner in which women simulate the extension of the hairy scalp on to the forehead by bringing hair, artificial or otherwise, down over it. The mouth is small and the angles of the

jaw are, like the chin, very imperfectly developed. The size of the mouth varies with the development of the lower jaws, for the reason that very large jaws necessitate a larger aperture than the average when they are separated from one another, and the reverse is true of those that are imperfectly developed. Diminished prominence of the symphysis and angle of the jaw gives a rounded appearance to the chin and neck.

On examining the interior of the mouth, the alveolar arch is compressed laterally and the palate is high, especially along the middle line, where it often makes an abrupt ascent. The height of the palate varies inversely with the development of the nasopharynx. The faucial tonsils are frequently large, as also is the lymphatic tissue constituting the pharyngeal tonsil.

The teeth, which are poorly developed, are often fixed rather loosely in their sockets, and their cusps fit imperfectly upon their fellows. The tongue is small.

All these conditions are consequent directly or indirectly on the absence of the developmental factor in the nasopharynx. This force has been reduced or deleted, in the first instance, by an infection of the nasopharynx by organisms producing a cold in the head. The nasopharynx is the portion of the child in which organisms most readily secure a foothold, and this liability to their presence varies inversely with the vitality of the individual. The vitality or resisting power can for all practical purposes be measured by the respiratory capacity to which it bears a direct and constant relationship. The feeble child has not the energy to spare and takes no pains to expel the mucus, etc., from the nose. It obtains with ease through the open-mouth-breathing air sufficient to provide for the carrying on of its modified mechanical relationship to its surroundings. The infection may not be limited to the nasopharynx, but may extend to the larynx, trachea, bronchial tubes or alveoli. Associated with, and in consequence of, the presence of the infection of the nasopharynx, the lymphatic masses forming the pharyngeal and faucial tonsils which drain this area become infected also. These again discharge into the cervical chain of lymphatic glands which in turn become inflamed and swollen.

You are well aware of the mode in which tubercle develops in the young subject. Two factors are requisite and exist in an ideal state under the circumstances just described. One is a *condition of low vitality* or, in other words, a *deficient resisting power* on the part of the individual. The other is *the presence of a suitable nidus or cultivation medium* in which the tubercular organism can grow and thrive free in its isolation from interference from those structures which meet it successfully under conditions of robust health. The inflamed gland, the vitality of which is depreciated by the presence of one lot of organisms or their products, forms the cultivation medium, and owing to the frequency of their presence tubercular infection of the glands in the neck is remarkably common in subjects of the class referred to.

How are these cases usually treated? After a

certain amount of medical treatment for the recurring catarrhal attacks, to which they are so liable, it is discovered that adenoids are present and the parents are given to understand that the child's troubles have been due to their presence and that, if not removed, many others will probably arise; also that they are certain to have no recurrence of the growth once it has been removed.

The operation is performed and in many cases the child breathes more freely for a longer or shorter time, *the amount of benefit derived varying inversely with the duration of the obstructive symptoms.* In a large number of cases the hopes raised in the parents' minds by the slight improvement following the operation are soon dashed to the ground by the re-appearance of the obstruction and in not a few cases the child is apparently worse rather than better for the operation.

Some surgeons who devote themselves to the study of diseases of the throat profess to exercise great care in the choice of the particular variety of enlargement of the pharyngeal lymphatic tissue, which, they say, they consider should alone be operated on, and pride themselves on performing the operation so skilfully that a so-called recurrence never takes place. I regret very much to say that, though I have seen many of these cases treated in this manner and rendered myself very familiar with every detail in their history, I have been unable to verify the accuracy of their statements by their practice in these particulars. However, this is but a side issue, as I merely wish to indicate at the present moment that the enlargement of the pharyngeal and of the faucial tonsils is only one of many effects and not primary causes, and that this must be taken into careful consideration in deciding on their treatment.

When the glands in the neck become affected with tubercle, the children are treated variously. Many medical men who appear to have no idea of the widespread existence of tubercle in these glands will inform the patient's parents that there is no suspicion of the presence of tubercle even when fluctuation is undoubtedly present. Some are given medicines, as cod-liver oil, etc., or very often the latest drug in the market. Iodine is usually applied. Others are operated on, the glands being excised entire, while abscesses are scraped. Very often the parents are assured that certain climates, as that of Margate, are specific, and the comfort of the home and the happiness of the household are seriously interfered with in order that these recommendations shall be put into practice.

They are too often disappointed by the appearance of other enlargements.

During all this time any effectual means of improving the child's resisting power by increasing the respiratory capacity is but rarely adopted, the treatment alternating between drugs, the seaside and the knife.

If the patient is a girl, the parents are frequently informed that, once menstruation commences, the swellings will subside rapidly.

The teeth of these children, a very important feature, are often very defective and become cari-

ous very early. Mouth-breathing, the indigestion from which they so often suffer and their diminished oxygenation which renders them incapable of breaking up the food which they occasionally eat ravenously, assist materially in depreciating the resisting power of the teeth and of the tissues in which they are embedded, favoring at the same time the growth of organisms which settle upon them and destroy them. These dyspeptic and dental infectious troubles also help in producing enlargement of the faucial tonsils and of the lymphatic glands in the neck. The decay of the teeth also increases the indigestion, as it interferes with mastication, salivation, etc., and it keeps the mouth in a more or less foul state, producing material of a septic nature which, by its absorption by the stomach, produces an unhealthy condition of the mucous membrane of the organ and, in consequence, damages the patient's health. The boy escapes at an early age from constant association with his mother and nurse and engages in active sports, in which he of necessity breathes more quickly and has to keep his mouth shut in order to perform them efficiently. Considerable improvement in the respiratory capacity ensues in consequence.

The unfortunate female child too often continues to accommodate her physiology to that of her female ancestors and of her usually inactive nurse, when she shows no improvement but continues to get worse. The mother takes her to a dentist, who arranges to attack the deformity of her jaws and face when she arrives at the age of twelve or thereabouts, making no effort to interfere with its progress in the meantime. The aid of a competent staymaker at a later date, by interfering with the free action of the diaphragm, results in a further reduction of the abdominal respiration on which the child has depended, and the dressmaker who stretches the material composing the body of the dress tightly across her flat, ill-developed chest helps to reduce the breathing capacity to a minimum, and so the sequence continues. Pregnancy, by necessitating for a period an efficient performance of the thoracic respiratory functions by an involuntary systematic course of breathing exercises, may permanently convert such a girl into a fine, healthy woman, but in many cases, after parturition, the position of thoracic expiration is merely complicated by a loose abdominal wall and the kidneys and other organs descend still further and flop about with greater freedom, seriously and progressively impairing the comfort, health and happiness of the individual.

The next factor in the development of the face to which I will call your attention is the complete eruption of the teeth. We are all very familiar with conditions of incomplete development of both jaws and especially of the upper, due to noneruption or the too early removal of certain teeth. Here the deformity is in no way due to any imperfection in the development of the nasopharynx or in the respiratory capacity, though it frequently co-exists from the causes already described. The treatment of these conditions, so far as they are due to the teeth alone, comes solely within the province of

the dental surgeon, who usually finds them very difficult to benefit materially.

The tongue is a mechanical factor of very great importance in the development of the lower jaw. A thorough recognition of this fact is of considerable service in practice, since by encouraging mastication and exercise of the tongue from early infancy by the use of a suitable "comforter," the tongue and the lower jaw can be simultaneously developed, the latter being enlarged and probably strengthened, the durability, texture and size of the teeth being also increased and improved by the process. Later in life the same purpose may be effected by the habitual use of American chewing-gum. In this way character may be given to a face which would otherwise suggest mental feebleness and indecision.

That the lower jaw varies in size with that of the tongue is shown by its excessive growth in those cases in which the tongue is abnormally large. I have been able to stay the growth of the lower jaw by reducing that of the tongue by excising a mesial wedge from its substance. Conditions of the lower jaw due to excessive enlargement of the tongue are by no means uncommon. The simplest form is what in dentistry is called "edge-to-edge bite," in which the lower jaw is sufficiently enlarged that in approximating the jaws the edges of the incisors of the lower jaw impact on those of the upper.

With a greater increase in the size of the jaw the condition called "underhung bite" arises, the edges of the lower incisors passing in front of those of the upper when the mouth is closed.

In cases of edge-to-edge or underlying bite, in which the tongue is obviously large or the features of the parents suggest the probability of a steadily increasing deformity, much advantage may be obtained by removing certain teeth at an early date from the lower jaw, so depriving it of a very important factor in its development.

Another condition associated with an abnormal enlargement of the lower jaw is "open bite." This may be associated with a jaw which should be otherwise an edge-to-edge or an underhung bite, a varying interval existing between the opposing incisor and certain other teeth when the jaws are approximated to the utmost. This is due frequently, in the first instance, to an incorrect approximation of the molar teeth produced by a forward movement of those in the lower jaw upon the upper. When associated with mouth-breathing, as it may be primarily in many cases—and is of necessity always as a final result in severe cases—the condition is aggravated by the imperfect development of the upper jaw brought about by the absence of the habitual air pressure in the nasopharynx. For extreme conditions of this kind I have divided the lower jaw on either side, removed wedge-shaped pieces and then fired the fragments together in the best possible position.

Though the enlargement of the tongue would usually seem to be hereditary, I believe I have seen it develop in cases in which the tongue and jaws were apparently quite normal at birth.

To what extent the size of the tongue and jaw can be influenced by feeding with hard or soft

foods is a matter of much interest and should be taken into consideration in the treatment of these cases. The whole subject of physiognomy is replete with interest and I fear I have been able to do little more than touch upon it in the brief time at my disposal. I trust, however, I have done so sufficiently to give some idea of how much we hold in our hands the physiognomy and health of the children who are growing up around us under our observation and care.

MALARIAL FEVER MISTAKEN AND TREATED FOR THERMIC FEVER.

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With the presence of the excessive heat of summer in this climate, we are all more or less concerned with the care and treatment of patients suffering from thermic fever. Whether in our private or hospital practice, some of us are prone, during the very hot weather, to jump to the conclusion that the patient who is brought to us too sick to give any satisfactory history, having a high fever and possibly being unconscious, is suffering from a heat-stroke, and to treat him accordingly.

It is often only after the prescribed treatment for that condition, when our patient is not making satisfactory progress, that we begin to consider some other diagnosis. The object of this paper is to bring to the notice of the profession the absolute necessity of routinely making immediate physical and blood examinations in all cases suggesting thermic fever. It was prompted by a disagreeable experience last summer, when three cases of malarial fever were treated as cases of heat-stroke, and in one instance the patient was tubbed until he almost collapsed.

The idea that some of these cases were malarial developed through a patient, who was admitted to the ward as suffering from heat-stroke and who the following day had a distinct malarial paroxysm, whose blood on examination showed typical plasmodia.

After the above occurrence we made no further mistakes in our diagnosis between malarial and thermic fever, for our first procedure on the admission of the patient to the receiving ward was to make a physical examination, paying especial attention to the splenic area and the blood.

That malarial fever and heat-stroke have some common characteristics is evident, especially when considering the pernicious type of malaria. As evidence of the sometimes striking similarity we will briefly relate two extracts taken from Dr. James Tyson's practice. Under the consideration of the pernicious or comatose type of malaria, he says "it may or may not begin with a chill, to which suc-

ceeds the comatose state; a low muttering delirium may supervene, the eyes are blood-shot, the skin is hot and dry. Temperature 105° to 106° ."

Speaking of thermic fever "a sense of oppression may precede the stroke that fells the victim, who quickly becomes unconscious and comatose; in other cases there is intense headache, dizziness, oppression and vomiting—sooner or later unconsciousness sets in and may be associated with a muttering delirium—face flushed, eyes diffuse, skin hot and dry. Temperature 107° to 112° ."

In the Twentieth Century Practice it says "sun-stroke may simulate an attack of pernicious fever in malarial climates and in summer when it attacks men mostly in the field." Although only one of our cases, which will be related below, was of the pernicious type, yet our error in all of these cases is an example of how even the simple forms of malaria, under certain conditions, may be mistaken, when the proper precautions are not rigidly enforced.

CASE 1.—J. H., white, aet. 31, steel worker. Admitted to University of Pennsylvania Hospital in July, 1901. Was working on the street, in the sun, when he suddenly fell to the ground and became unconscious. Was brought to the receiving ward in police patrol. Temperature by rectum 105° . Diagnosed as thermic fever and put in tub, where he remained for about $\frac{3}{4}$ of an hour, without any effect on his temperature; the patient became cyanotic, the pulse became very rapid and weak, and stimulation was necessary. Sent to the ward on nervous service.* About four hours after admission he had a profuse sweat, regained consciousness and his temperature dropped. After this he was perfectly rational and we obtained the following history. Had malarial fever 8 years ago. In the 5 days preceding admission has had 3 chills, followed by sweats and severe headache, including the present attack. Says he has had constant fever since first paroxysm 5 days ago. The last attack occurred while he was working on the street, he had a chill, when he felt his feet give way and he fell to the ground, after which he did not remember anything until he regained consciousness in the hospital. Physical examination negative, except that spleen was enlarged and hard. Blood showed hemoglobin, 60 per cent.; red bloodcorpuscles 2,580,000; white bloodcorpuscles 3,240. No plasmodia were found, but excessive pigmentation was present. Patient was transferred to medical service and remained in hospital 5 days; he was treated with large doses of quinine bisulphate. When he left, his headache had entirely disappeared, likewise the fever, but his spleen was still somewhat enlarged. He left the hospital against our advice. Revised diagnosis: Malarial fever, pernicious type.

CASE 2.—J. M., colored, aet. 56, carpenter. Admitted to University of Pennsylvania Hospital, July 16, 1901. Brought into receiving ward in police patrol. Temperature 104° , tongue coated, breath foul, skin dry. Tubbed, with some reduction of temperature. Sent to nervous ward as a case of thermic fever; as the patient would not answer questions, no history was obtainable. The day after admission this history was obtained. Had malaria at the age of 26. During summer of 1900 was sick two weeks with malaria, having daily chills. On July 14, 1901, had a chill, on the 16th. he was at work and had another, when he had to stop work. The patrol was called and, seeing patient having high fever, brought him into hospital as case of sunstroke.

The physical examination was negative. Blood showed hemoglobin 70 per cent., red bloodcorpuscles, 3,140,000; white bloodcorpuscles, 2,460; no plasmodia. The following day patient had a chill. The blood now showed the plasmodium. The patient transferred to medical service and put on quinine. Patient would only remain in hospital 3 days, and had had only the one paroxysm since admission. Diagnosis: Tertian malaria.

CASE 3.—J. F., white, aet. 19, driver. Admitted to

*According to the custom at the University of Pennsylvania Hospital, all cases of poisoning and heat cases are treated in the nervous service.

University of Pennsylvania Hospital, July 22, 1901. Brought into receiving ward by police patrol, having fallen from a wagon which he was driving in the sun. Temperature 104.4° , pulse 114, respiration 44. Patient appeared very dull, and with much difficulty we elicited that he had been driving in the sun for the last two days, and during this time had a cough. Never had malaria or chills. The case appeared to be one simply of thermic fever, and patient was tubbed with a little benefit. The temperature was reduced a trifle, and he was much brighter and had relief from the headache. Sent to nervous ward. While in ward temperature slowly dropped to normal. Physical examination showed no splenic enlargement, and, with exception of moist rales over both lungs posteriorly, it was entirely negative. Blood, hemoglobin 60 per cent.; red bloodcorpuscles, 4,000,000; white bloodcorpuscles, 7,140. Plasmodia malariae present in various stages of development suggesting a double tertian infection. Patient was put on quinine after being transferred to medical service. The following day had a distinct malarial paroxysm. Plasmodia still present. Quinine increased, up to 60 grains in 24 hours. The following day had another paroxysm. Spleen still not palpable. For the next 5 days there was no recurrence, and patient left hospital. Diagnosis: Double tertian malaria.

The three cases above, all occurred during the extreme hot spell in July of last year and were brought into the hospital with a large number of genuine cases of thermic fever. From the lesson these cases taught us we were enabled to prevent any further similar mistakes, as our receiving ward was equipped with a microscope, and every patient admitted suffering from hyperpyrexia was immediately subjected to a blood and physical examination, laying particular stress on the splenic area. Subsequent to the above we found the plasmodia in 6 patients brought into the receiving ward as cases of sunstroke. In the first related in the paper it will be noted that no plasmodia were found, which appears to be the exception rather than the rule in pernicious malaria, still we feel confident that it was a case of malaria, basing the diagnosis on the history, splenic enlargement, pigmentation and therapeutic test. In conclusion it should be noticed that there are cases of malarial fever complicated with sunstroke (E. Marchiafava and A. Bignami). Even if this be the case, the value of the knowledge that malaria is present is self-evident.

We take this means of expressing our thanks to Dr. John H. Musser and Dr. Joseph Sailer, on whose service the patient came when transferred to the medical department, for permitting us to report these cases.

THE INFECTIOUS ORIGIN OF PURPURA HEMORRHAGICA.*

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On July 30, 1901, F. W., 21 years old, American, barber by occupation, called on me, presenting the following history and symptoms: On arising one morning, 3 weeks ago, patient felt extremely weak, and was hardly able to move about. During the morning his strength increased somewhat, but in the afternoon he again felt prostrated and did not improve any for the next 3 or 4 days. On the fourth day small red spots appeared on the arms and legs, and during the following week more and larger spots appeared, especially about the right elbow, knee and ankle.

*Read before the Chicago Medical Society, Nov. 20, 1901.

Somewhat later the back became covered with similar spots, and patient noticed bleeding from the gums. In the third week of his sickness and 4 days before I saw him, patient noticed on arising in the morning that the left side of his face was paralyzed, no other part of the body being affected. The right ankle and wrist were markedly swollen, but not painful and the right thigh was enlarged. There had been no bleeding from the nose, and no blood in the urine or feces. His bowels were constipated, and on the day I first saw him he complained of abdominal pain. There was no cough, no eye symptoms except inability to close the left eyelid, no ear symptoms, and patient showed no mental disturbance. Patient had been growing steadily worse; however, he remained at work until 4 days before the day of examination, at which time he suffered from vertigo and syncope.

The past history of the patient gave no clue to the present illness. He had suffered attacks of pneumonia at 6 and 9 years respectively, had an injury to his right arm at 11 years and a venereal infection, probably gonorrhea, a year ago. He gives no history of syphilis, of malaria or of intoxication of any kind. He has been moderate and regular in his habits and manner of living. During the past 2 months preceding his illness he took his meals at restaurants and consumed somewhat more beer than heretofore. At that time, namely 2 months ago, he left the home of his parents at Madison, Wis., on account of a misunderstanding with his father. During his short stay in Chicago he has been constantly employed at his occupation, in healthy quarters, has had a sufficiency of good food and lived in a nice, well-ventilated room.

The family history is equally negative. His parents, though of advanced age, are alive and healthy. Several brothers and sisters are living, several children of the family died of diphtheria and scarlet fever. No member of the family has ever suffered from any similar illness, and there is no hemorrhagic family tendency.

On examination of the patient I found a well-nourished young man, exceedingly pale, however, and showing extreme muscular weakness. Hemorrhages into the skin, varying from a pin point in size to large ecchymotic areas, 4 to 5 inches in diameter, covered the body. His eyes reacted normally to light and accommodation. His tongue showed several hemorrhagic spots on its dorsum. His buccal mucous membrane showed several ecchymotic spots. His gums bled spontaneously and his teeth were in a miserable condition. There was a complete paralysis of the entire left half of the face involving the oculo-facial group, but no involvement of the tongue or palate. The chest showed no change in appearance. Both sides expanded equally. There were no changes found in the lung on percussion or auscultation. The apex of the heart was in the fifth interspace, just inside of the mammary line. There was no cardiac enlargement to the right. For the past few days patient had suffered from palpitation. At the apex a systolic thrill was palpable, and here also a soft systolic murmur was heard; over the base a systolic murmur of greater intensity and much rougher in character was heard, with a distinctly accentuated second pulmonic sound, but with no accentuation or diminution of the second aortic.

Post mortem, no endocardial lesion, however, was found. The liver and the spleen are both palpable several fingers breadth below the costal arch, presenting plump, thick, rounded borders. The abdomen otherwise was negative. Cervical, axillary and inguinal glands were palpable. The extremities presented the small and large hemorrhagic areas already mentioned, and the mucous membranes, where not hemorrhagic, showed extreme pallor. The right ankle joint was moderately swollen. The deep reflexes remained normal. The temperature was 102° F, pulse 130. Patient, not being able to be properly cared for at home, was sent to the medical ward of the Michael Reese Hospital, in charge of Dr. M. L. Goodkind, to whom I am indebted for further opportunity to study the case.

Neither the history nor the physical findings up to this time gave any etiological factor for the illness. The temperature for the 7 days of observation ranged from 102° to over 105° F., the pulse correspondingly from 120 to 150. Widal reaction was negative, and no malarial bodies were found in the blood at any of the several examinations. The urine was negative. Specific gravity 1012 acid, no albumin, no sugar, no casts, etc., uric acid crystals were

abundant. The blood showed interesting changes. Hemoglobin estimate (Fleischl) July 31st., showed 22%. Blood count: Red corpuscles, 2,280,000 per cmm. and white corpuscles, 16,000. August 3rd.: Red corpuscles, 1,370,000; white corpuscles 4,400; hemoglobin (Fleischl) 12%. The differential count of the white corpuscles showed an enormous increase of the small mononuclears and lymphocytes. 92 out of 103. The red cells showed no changes in size or shape, and no nucleated cells. These blood-findings correspond with those of other writers.

John S. Billings (*Johns Hopkins Hosp. Bulletin*, '94) reports a case. Red corpuscles 696,000 to 483,000; white 4,000; hemoglobin 17%, with 75% of the total leukocytes found being mononuclear and lymphocytes.

Ehrlich (*Charité Annalen*, 1884) speaks of a similar case, and points to the fatal prognosis in such cases, inasmuch as the blood shows no regenerative changes. In the fresh blood specimens, numbers of small rapidly rotary, moving bodies were found. Letzerich, in his monograph on purpura, also mentions these bodies and holds them to be spores. Cultures taken from the blood, 36 hours ante mortem, with all possible aseptic precautions, gave pure growths of staphylococcus aureus on all media inoculated. During the 7 days of observation, the disease was rapidly progressive. Continuous high temperature, extensive hemorrhages with a resulting severe anemia brought death from exhaustion, after a total illness of less than four weeks from the beginning of the first symptoms of the disease.

As early as 1873 KruegKula, (*Wiener med. Wochenschr.*, 1873) pointed to the infectious character of the purpuric disease and reported twins, nursed by a scorbutic mother, developing scurvy, and Dohrn, in 1875, reported a scorbutic mother giving birth to a scorbutic child. Since then numerous investigators have found various organisms in the blood in sufferers from purpuric disease.

Among these, Watson Cheyne¹ found a short bacillus, Libreton², the staphylococcus albus, Nichols³, also the staphylococcus albus and several nonpathogenic organisms (post mortem from blood and organs). Reher⁴, cocci and spores. Petrone⁵ inoculated two rabbits with blood from scorbutic patients, killed the rabbits on the eighth and twelfth days respectively and found hemorrhages under the back and meninges.

He next inoculated two rabbits with blood from a patient suffering from purpura hemorrhagica. On sections of his animals he found hemorrhages in the dura, basis cerebri, liver, spleen, kidneys, muscles, etc., and on reinoculating other rabbits with the blood of these developed the same results. In the blood of the patient suffering from purpura hemorrhagica, as well as in the two series of trial animals, he found an increase of the white bloodcells and small micrococci and bacilli. Blood from a patient suffering from simple purpura gave a similar inoculation result. Hryntschalk, (*Archiv f. Kinderheilkunde* '84) refuted these statements, inasmuch as all his blood examinations, cultures and inoculations remained negative.

The most complete study on the infectious origin of purpura hemorrhagica is found in Letzerich's⁶ original monograph 1889.

1. Watson Cheyne. *Lancet*, 1884, and *British M. Jour.*, '83.
2. Libreton. *Lancet*, 1884.
3. Nichols. *Lancet*, 1901. Vol. I. Purpura and hemorrhagic typhoid fever.
4. Reher. *Archiv für experiment. Pharm. und Pathologie*, 1884.
5. Petrone. *Archiv für Dermatologie*, 1884.
6. Letzerich. *Untersuchungsm. über die Kenntniss der Purpura haemorrhagica* Leipzig, '83.

Letzerich himself was a sufferer from the disease, and firmly believed that he inoculated himself during the study of his first case. In his first paper he reports a typical case of Werlhof's disease. In the blood of this patient he found small bodies, possessing rotary movements, similar to those observed in our patient.

Five cultures from the blood gave pure growths of a bacillus, much resembling the anthrax bacillus, inoculations of which produced the hemorrhagic disease in the trial animals, the blood of which again showed the same bacilli, in fact a complete correspondence to Koch's four rules of identification.

While waiting for further cases to substantiate his findings, Letzerich, in 1891, himself developed the disease, recovered and had two further attacks at intervals each of about two years.

From his own blood he cultivated the same bacilli above mentioned, and his animal experiments again proved positive, so Letzerich became convinced that he acquired the disease by direct inoculation from case 1, giving therefore two years as the period for incubation.

In 1891, and again two years afterward, he reports each time two further cases with identical findings. If we note the diseases other than the so-called primary purpura, in which hemorrhages occur into the skin, we will find they are largely either the acute or chronic infectious disease. In a number of these, of known microbic origin, the pathogenic microbe has been found in the hemorrhagic spots.

In all the other diseases in which hemorrhages occur, symptomatically, as in the chronic wasting diseases and the various intoxications, no doubt toxic causes are the producing factor.

If these secondary hemorrhages are of toxic and infectious origin, why not search for infectious causes in the primary purpuras, especially since cultures in all the purpuras have again and again given positive results.

REPORT ON THE PATHOLOGY OF THE ABOVE CASE OF PURPURA HEMORRHAGICA.

By W. H. RUBOVITS, M. D.,

The infectious nature of essential or primary purpura, or as it is more commonly called, purpura hemorrhagica, having become practically an established fact, the pathogenesis and pathological anatomy, which were formerly of necessity obscure, become, at least in part, problems which admit of solution. Having determined the cause of the affection, the methods to pursue in correctly interpreting the pathological findings become clear.

The most striking feature of the disease and the one from which it derives its name is the bleeding. In our case hemorrhages and hemorrhagic infarcts of uncountable numbers were revealed at the autopsy in the liver, spleen, pancreas, kidneys, suprarenal bodies, lungs, heart and pericardium, pleura, peritoneum, synovial membranes, muscles, adipose tissue and skin. A few petechiæ were found in the meninges of the brain. The brain, intestinal and vesical mucous membranes were entirely free from hemorrhages.

An interesting and undetermined factor in this disease concerns the mode of escape of the blood

through the vessel walls. When we consider that the disease is characterized by the circulation in the blood of great numbers of micro-organisms, by profound toxemia, by pyrexia and hyperpyrexia and usually by a protracted course, we naturally search for pathological changes in the bloodvessels which may be produced by these conditions. Upon microscopical examination of the bloodvessels, the endothelium and subendothelial tissue, in our case, were found to be in an unhealthy condition. The nuclei were very indistinct or absent, the cells stained poorly and the tissues presented the homogeneous appearance resembling hyaline degeneration. The changes were most marked in the vessels of the liver.

Endarteritis, fatty and amyloid degeneration have been described by numerous authors in cases of purpura hemorrhagica. These changes are in themselves insufficient to account for the escape of blood from the vessels and frequently exist in other conditions unassociated with hemorrhages. Likewise, the changes in the morphological constituents of the blood, while possessing some characteristics which have been described as peculiar to purpura hemorrhagica, are quite inconstant and entirely insufficient to account for the bleeding. It therefore becomes necessary to seek some cause other than the degeneration of the vessel walls or the morbid condition of the blood for the immediate cause of the hemorrhages in purpura hemorrhagica.

Stephen Mackenzie states that the escape of blood in this condition may be by rhexis or by diapedesis, more probably the former. Albert G. Nicholls states that repeated examinations failed to find any rupture of bloodvessels. Unna and Sack have detected actual rupture of the vessel walls. Many of the articles upon this subject make no mention of the mode of escape of the blood.

In attempting to find the lesion in the bloodvessels, sections were made through various tissues at the site of a visible hemorrhage. When placed under the microscope, such sections invariably showed a mass of blood in all stages of disintegration, which completely suffused and obscured all details of the specimen, so that the detection of any changes in the vessel walls was impossible. This may, in a manner, account for the unsatisfactory results obtained by many investigators. If, on the other hand, sections are made through tissue in which no macroscopical hemorrhage has taken place, the cause of the bleeding may be ascertained. Minute bloodvessels were found in the spleen in which a distinct rupture had occurred, apparently just before death, because only a small amount of blood had escaped and therefore the details in the tissue changes were unobscured.

Still another factor to be considered in relation to the hemorrhages in purpura is the formation of very large numbers of minute thrombi and emboli. The alterations in the blood and the circulation in the blood of large numbers of micro-organisms together with the constant degenerations of the bloodvessels which obtain in this disease conduce to the formation of these circulatory changes. The mechanical obstruction offered by the thrombi or em-

boli is capable of producing a rupture of the vessel wall especially when the wall is diseased and thin, as in the small veins, the walls of which are sometimes mere channels in the surrounding tissues. Thrombi have been found in the vessels by numerous observers and have given rise to the term "purpura thrombotica."

In our case they were found in very large numbers in the sublobular veins of the liver, entirely occluding the lumen of the vessels. They consisted entirely of leukocytes and large numbers of cocci, which had been isolated from the blood before death, as has been stated. Their formation seems to depend directly upon the collection and agglutination of large numbers of leukocytes with the micro-organisms, favored by the diseased endothelial lining of the bloodvessels. It is but rational to associate the preponderance of the lymphocytes, which was constant in the differential blood-counts, with the finding of these thrombi composed almost entirely of lymphocytes and cocci. The exact relation is merely a matter of conjecture.

The search for the pathological changes in the vessel walls revealed the presence of micro-organisms in the circulation. By employing the special methods for staining bacteria in tissue, the cocci were also found in the parenchyma, but in very small numbers in contrast to the large numbers in the bloodvessels. Notwithstanding the presence of the cocci, the parenchyma of the liver, spleen and pancreas was practically unaltered and that of the kidneys and lungs showed only slight changes; a diffuse nephritis and bronchopneumonia.

Marked hyperplasia of the agminated and solitary follicles of the intestines with slight ulceration was present. This is the common finding in purpura hemorrhagica due to the accompanying gastro-enteritis which is commonly present and usually marks the onset of the disease, as in our case.

The pathological findings of purpura hemorrhagica, of which this is a typical case, have revealed nothing which may be interpreted as the characteristic morbid changes of an independent affection; of a disease *per se*. None of the conditions found either clinically or pathologically is sufficient evidence to accord to the so-called primary or idiopathic purpura the dignity of an independent affection, but they are rather the manifestations of a morbid influence of which the purpura is a prominent clinical sign. The degenerative tissue changes, especially in the bloodvessels, lungs and kidneys, the uniformly enlarged lymphatic glands and spleen, the intestinal changes, the altered blood and purpura, but, above all, the circulation of micro-organisms in the blood, are characteristic in every respect of septicemia. While purpura has been recognized as an occasional result of septicemia, frequent or extensive hemorrhages are not common. As a result, a case presenting itself with very extensive hemorrhages into the skin, with bloody stools and bloody vomit, with symptoms referable to the nervous system resulting from bleeding into nervous structures, such as brain, cord or peripheral nerves, would be looked upon as an independent disease and not as merely the exaggerated manifestations on the part of the circulatory apparatus of a septicemia. From a pathological standpoint, at least, purpura hemorrhagica must therefore be regarded as one of the manifestations of septicemia.

The changes which are found in the liver are interesting and have been found in other cases of purpura. It is the only finding which differs essentially from an ordinary septicemia. Indeed, Letze- rich says that just as we first feel for an enlarged

spleen in malaria, so do we first look for an enlarged liver in purpura. The past mortem record of our case states that the liver was of a pale brown color, firm in consistency, moderately increased in size, and that on section the markings were very distinct. The hemorrhages were very numerous. Microscopically the interlobular connective tissue was found to be greatly increased in amount, and to contain many leukocytes and large numbers of the minute thrombi which have been referred to. The parenchyma was in a healthy condition. The changes correspond to an interstitial hepatitis. Many theories could be offered to account for this condition, but nothing definite could be stated. As Stephen Mackenzie has said, "All we can do in the present state of our knowledge is to accumulate further information, and to exhaust every means in the investigation of cases."

INDICATIONS THAT OUR METHODS OF FUMIGATION ARE FAULTY.*

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of Philadelphia.

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The problem of fumigation and disinfection is as important as it is difficult of solution. Unless disinfection is successfully done, it is only a delusion and a snare. The requirements of a disinfectant are: (1) It must penetrate to every part of the room and destroy surely and quickly the most resistant forms of bacteria present. (2) It must not injure the materials with which it comes in contact. (3) It must be easy of application and not too expensive.

Rubbing the floors and walls with bread, with solutions of carbolic acid, bichloride of mercury or chlorinated lime; or fumigation with sulphur dioxide, chlorine, bromine or iodine gases have all had their day and have been discarded in favor of formaldehyde gas as most nearly fulfilling the above conditions.

Judging from the results of my investigation (as well as those of others) formaldehyde will need an improved method of application or should likewise be discarded.

I have not attempted to review all the literature upon this subject but Abbe, Rondelli, Petruschy, (*Verhandlungen des Congresses für innere Medizin*, 1898) and others have found that formaldehyde gas was not a reliable disinfectant.

Flügge (*Zeitschrift f. Hygiene*, Vol. 29, 1898, p. 276) found that fresh and undried sputum and diphtheritic membrane do not become penetrated; the inner side of soiled clothing, excreta in the form of scales or dried dust, the deeper parts of clothing, things in the pockets, soiled handkerchiefs, mattresses, etc. are not disinfected. He used five different methods in his experiments.

First: Method of Trillat (*Rourn. Trillat, Annales de l'Institut Pasteur*, 1896, Bose, *ibid.*) by which formalin in the presence of calcium chloride is

*Read before the Pathological Society of Philadelphia, May 22, 1901.

vaporized and passed into the key-hole of the room at a pressure of three atmospheres.

Second: Method of Rosenberger (*Zeitschr. f. Hyg.* Bd. XXIV) by which tablets of formaldehyde are vaporized in the presence of 5% menthol and methyl alcohol.

Third: Scherring's method (Aaronson, *Zeitschr. f. Hyg.* Bd. XXV) by which tablets composed of paraformaldehyde, formaldehyde and trioxymethylen are vaporized over a spirit lamp.

Fourth: Walter Schlossman's method by which formalin containing 10% of glycerine is vaporized and forced through the key-hole.

Fifth: Method of Flügge by which he was enabled to vaporize 250 gm. of formaldehyde in 3½ hours, which is about twice as much as can be obtained in any of the other methods. Flügge, assisted by Dr. Neisser, Dr. Laschtschenke and Dr. Polack, found the latter method to be the most successful, but not entirely satisfactory.

They often found the staphylococcus pyogenes aureus upon the surface, and most of the pathogenic germs were found, when given slight protection, in the clothing etc. Drs. William H. Park and Arthur R. Guerand, of New York, in a series of experiments in 1898 (*Philadelphia Medical Journal*, September 17, 1898) found the staphylococcus pyogenes aureus and anthrax spores not killed after 24 hours, and other bacteria not killed after 24 hours when protected by one layer of cotton spreads.

Typhoid and diphtheria bacilli were not killed when placed beneath two layers of blanket. Typhoid bacilli placed at the bottom of a glass-tube, 18 inches long and open at one end, were not killed after 24 hours. Bacteria placed in sealed envelopes were not killed, bacteria in coat pockets were not killed.

By sulphur fumigation, 3 lbs. per 1000 cubic feet and exposed 20 hours, no pathogenic germs were killed except the diphtheria bacilli. They conclude that 60 oz. of formalin per 1000 cubic feet (ten times the amount generally used in room disinfection—5 oz.) will destroy the vitality of bacteria if the clothes are hung up so that the gas can freely circulate about and through them. Books can be successfully disinfected when exposed in a special apparatus (not in ordinary rooms and libraries) by using 120 oz. of formalin evaporated in 1000 cubic feet of space. Ch. Dopter, (*Rev. d'hyg. Paris*, tome XXIV No. 2) in a recent report recommends the use of a spray consisting of commercial formalin (40% formaldehyde) 24 cc., water 976 cc., but finds, after 24 hours, moulds, *B. subtilis*, *B. mesentericus* and sometimes staphylococci.

Dr. Joseph Mc Farland, of Philadelphia, after a series of investigations made in 1896 (*University Medical Magazine*, September, 1898), to test the value of various formaldehyde generators, concluded that more formaldehyde gas must be generated than was recommended by the manufacturers and that this must be supplemented by cleansing and disinfecting solutions.

Dr. Daniel E. Hughes, chief resident physician in

the Philadelphia Hospital, and myself have noticed epidemics of contagious diseases break out in the children's wards, which had been fumigated by formaldehyde gas, to which we could trace no contagion from the outside. We often doubted the efficacy of the fumigation, but made no experiments until several months ago, when a formaldehyde candle was very highly recommended to us for disinfecting purposes. It seemed a most convenient method, but we decided to test its value before depending upon it.

In my first experiment (which I purposely made a severe test) I placed cultures of the staphylococcus pyogenes aureus near the point of generation of gas. One tube had colonies upon bloodserum, open, one closed and one just inoculated, another having a culture upon bouillon and one just inoculated, but both open. All grew well.

Considering that contagion is usually carried by the dust from the floor or upon the clothing, in my next experiment I made cultures from the surface of the floor, the bed and the mantle before, and repeated them after, fumigation. The cultures showed the ordinary germs found in rooms and apparently they grew as well after fumigation as before.

This experiment was repeated with a similar result. In all of these I used three times the amount recommended for 1000 cubic feet. Previous to this we had been using the Walter Schlossman method by which formalin containing 10% of glycerine was vaporized in an apparatus which was supposed to generate enough gas in one hour to disinfect 1000 cubic feet. The tests with this apparatus were made in rooms of 700 cubic feet capacity that were tightly sealed by means of strips of paper being pasted over all crevices. All rooms were exposed to the gas for at least 24 hours. Cultures in each test were made from the dust upon the surface of the floor, bed, window and wall before and after fumigation. In the first test the apparatus was allowed to run one hour, with the result that all cultures grew well. In the second it ran two hours and evaporated 5 oz. of formalin. All cultures grew well. A room was then exposed four and a half hours and twelve ounces of formalin were vaporized. All cultures grew. The generator was then allowed to run for six hours, vaporized 18 oz. and the room remained closed 48 hours. All cultures grew.

5th. Gas was generated for 9 hours, 28 oz. formalin evaporated and the room closed 56 hours. All cultures grew.

6th. Gas was generated for 13 hours, 32 oz., formalin vaporized and the room closed 50 hours. All cultures grew.

I then burned 5 lbs., of sulphur in the presence of water, in the same-sized room, having made the cultures as before. All grew.

I then used 10 lbs., of sulphur in the same-sized room, with the result that one culture remained sterile. This culture was made from the surface of the bed. A culture made from beneath the spread showed a luxuriant growth. The same germs in all these experiments were found after fumigation as

before. They consisted of moulds, various bacilli, staphylococci and streptococci.

At the present time we do not know the specific germ causing measles, scarlet fever, mumps, whooping cough, chicken-pox and smallpox, and, as these are the diseases with which we most commonly had to deal, it seemed unimportant to isolate the various germs found in the cultures. The fact that the most common forms of bacteria were so little affected may be taken as an indication that the germs about which we are in ignorance were probably not killed. It has been our custom to scrub well the floors, walls, ceiling and furniture and send all clothing to the laundry after fumigation. The fact that we have been able to control epidemics depended probably more upon this latter cleansing than upon the action of formaldehyde gas.

These results indicate that the methods we depended upon locally were and are not a success. They raise doubts as to the value of attaching a fumigator to the key-hole of a large factory in which a case of smallpox has developed and generating gas for half an hour, the windows and other openings not being at all sealed. These results also suggest that all methods and all fumigating apparatus should be regularly tested and should answer these simple surface tests or be discarded.

All investigators seem to agree that formaldehyde gas is the best disinfectant known, but we should aim at obtaining a more satisfactory method of application which will probably mean an apparatus capable of generating the gas ten times as fast or in more concentrated form.

We should not accept the simple statement of a manufacturer of any apparatus as to its efficiency.

PAPILLOMA OF THE LARYNX.

By JOHN S. MILLER, A. M., M. D.,
of Denver Colorado.

Of all surgical operations I believe that the successful removal of a papilloma of the larynx is one of the most delicate, if not one of the most difficult.

Those who performed this operation in the days before cocaine was introduced (nearly twenty years ago) can fully appreciate the value of this drug. They can also vividly recall their disappointments as well as the struggles of patient and surgeon. The operation was always undertaken (even by the most expert operators) with misgivings as to the thoroughness and success in the removal of such growths. There can be no doubt that many larynges were made worse through hurried, and therefore harsh, treatment of these delicate anatomical parts. The pain, as well as the apprehensiveness of the patient, together with bleeding due to ineffectual attempts at grasping the tumor, called for the highest degree of tact and dexterity on the part of the laryngeal surgeon. At the critical moment the patient would move, and then it was fortunate if a large piece of healthy tissue was not bitten off by the cutting forceps. It may be interesting to speak of the preparatory measures of those days as compared with the

present time. For at least ten days before the operation our patient presented himself daily at the office or clinic, the instruments were introduced into the larynx at such times to accustom the patient to their presence and manipulation. During the last three days bromide of potassium, gr. xx, was given t. i. d. with a view to lessening the nervous irritability. During the last three hours before the operation the patient chewed and swallowed cracked ice to diminish the sensitiveness of the pharynx, base of the tongue and epiglottis.

In the adult, with a "good nerve" and perhaps a single tumor conveniently situated, the growth was brilliantly removed *secundum artem* by the experienced operator. When, however, the growths were multiple, and generally sessile, located on the ventricular bands or the edges of the vocal cords, it was a different affair. The prolonged efforts produced intolerance to instrumentation, which was promptly met by struggling or unsteadiness of the patient, besides obscuring the field by bleeding. Thanks to the discoverer of cocaine and adrenalin chloride, all these complications have been set aside. It is said that the adrenalin preparations exert their best hemostatic effect in operations in the nose. When cocaine cost \$6 per grain, we used fluid extract of coca and found this to produce a remarkable degree of local anesthesia.

Several years ago I removed a large number of papillomata from the larynx of an eleven-year-old girl. She had been hoarse since early childhood. A laryngologist removed all the growths that were in sight with the aid of the laryngoscope. The tracheal growths could not be seen, and the stertorous breathing and cyanosis were not relieved.

The case was turned over to me. I did a preliminary tracheotomy and six days later performed laryngotomy. The trachea was plugged temporarily with iodoform gauze, which in my hands was just as efficient. The upper third of the trachea was almost entirely occluded by the growth, respiration being carried on through a slight tortuous channel. The coarser masses were removed with curved scissors, and the entire area was thoroughly curetted. The wound was closed after the removal of the gauze plug, and the tracheal cannula was removed ten days later. The fistulous opening closed spontaneously in less than a week. Aphonia persisted for several months, and then the patient's voice returned gradually. On my recent visit to Philadelphia I made a laryngological examination of this patient and found no recurrence of the trouble. She is slightly hoarse, but, nevertheless, she has quite a strong alto voice and is a fairly good singer.

Laryngeal papillomata are ordinarily divided into three classes:

First, the variety which presents numerous small light-red tumors of uneven surface and broad base, generally thinly scattered. After removal they are not likely to recur.

The second variety is the whitish-gray or warty tumor with a broad base, usually found on the vocal cords. After removal they recur very slowly, if at all.

Third variety. This form is exceedingly intrac-

table and is considered most dangerous on account of its rapid occurrence and spread, as well as its tendency to undergo epitheliomatous degeneration. It is the large reddish tumor, most frequently single. It resembles a cauliflower or mulberry growth, developing very rapidly and invading all parts of the lower laryngeal cavity.

Great tact and skill are required in the clean removal of these growths. Should the growth be removed by morcellation, or by taking a bite here and there, such operation is useless if not positively dangerous. Not unlike malignant disease imperfectly removed in any part of the body, these growths seem to be stimulated into a heightened activity to return when the attack upon them is feebly or injudiciously made.

THE TREATMENT OF ACUTE UNCOMPLICATED GONORRHEA.

By HUGH WILKINSON, M. D.,
of Kansas City, Kansas.

The purpose of this paper is to advance a simple line of treatment and to discourage the use of the almost universally employed syringe with its commonly painful and dangerous injection fluid.

What should we do in simple cases? In this class the penile urethra alone is involved in all probability. There are no complications, and we will presume that it is a first attack. It would be very unwise to send the young man to a drug-store with an order for a syringe and a prescription for a solution to load it with. The probabilities are that at about the first injection, especially if used by the patient, several thousand gonococci would find themselves pushed back into the deep urethra with a consequent multiplication of the symptoms and a greater danger of such complications as prostatitis, cystitis and epididymitis. The many miseries to which these latter may lead are well known.

As I said above, the infection is almost always located in the anterior part of the urethra at first, and only later may it extend backward. It is the physician's duty to prevent this extension as far as possible. In my opinion the commonest aid to the extension is the giving of a syringe to a patient by the physician, or, what is so common, the prescribing of one by drug clerks who are ignorant of the pathology of the disease and the indications for its treatment.

In these cases I think the simplest mode of treatment is the best and the procedures I would advance can be arranged under four heads, namely, first, rest; second, diet; third, drugs and fourth, local treatment.

1. Rest. This is of paramount importance; and could we secure it absolutely in bed, with a bread and milk diet, the disease would in most cases pursue an uneventful course and disappear rapidly. But it is not once in a hundred times that we can employ this ideal method; we can only advise it and try to come as near to the mark as possible. Have the patient keep off his feet as much as he can and prohibit any violent exercises as dancing and running.

Impress on his mind the value of rest to the parts. This is about all we can do, as he will not go home and go to bed any more than a person will do so with an attack of acute coryza. He must refrain as far as possible from all female society which might excite him sexually and thus increase the discomforts.

2. Diet. Of all the measures this is on a par with any of them as to importance. It should be restricted to bread and milk for a week at least. All meats, pastry and heavy foods should be done away with, at least till the acute symptoms are past. Very hot or cold drinks should not be used; nor tea, coffee or alcoholics. The importance of abstention from alcoholics cannot be overestimated. Many an almost cured attack of gonorrhea has been relighted by an alcoholic bout even without a re-exposure. So insist as much as possible on this point.

3. Drugs. There are dozens of various drugs of more or less value in gonorrhea. Perhaps the old balsamic preparations are as good as any. But there are modern preparations which are as good and far nicer to take.

The points in the drug treatment are, to keep the bowels open, get the urine in an antiseptic condition, likewise unirritating, and increase its flow so as to make it dilute and efficient as an irrigating fluid. The aloin, belladonna, strychnine, ipecac pills, put up by most of the drug houses, are as good as any evacuant in my mind and I would advise one to be taken every second night for the first week at least.

To increase the quantity of urine and dilute it, nothing is better than large amounts of good, pure water, and the drinking of such should be insisted upon.

Urotropine is about the best modern urinary antiseptic in my opinion. Its drawback is its expense for poor patients and, as it is not very destructive to the gonococcus, it has been discarded by many doctors. It should be given ordinarily in five to seven-grain capsules, four times daily, after meals and at bed time. The contents of the capsule should be emptied into half a glass of water and the whole ingested.

Perhaps a powder made of five grains of boric acid, five grains sodium bicarbonate and two grains powdered cubebs would be more serviceable and cheaper. These should be taken by placing them on the tongue and washing down with a copious draught of water. Take one four times a day as directed for the urotropine. In this powder the boric acid antisepticizes the urine, the soda makes it alkaline and thus less irritating, while the cubebs make the powder more palatable and have some effect on the urine.

Salol, methylene blue and other remedies are quite popular, but in a rather limited personal experience I have found the urotropine or the powder mentioned above quite sufficient in the class of cases which this paper is intended to treat of. The gelatine globules put up by many of the drug-houses are the best means of administering the balsamic drugs, should they be chosen.

4. Local measures. As I have said before I would not use the injection treatment in these cases. And it is at times difficult to impress on the patient's mind that the essence of his treatment does not lie in the use of some fiery, blood-bringing injection fluid. He may have several friends who have used this method, or might have been advised to use it by a druggist, who, as we know, does a big practice in this line at times. The best local measure that I could advise would be a prolonged immersion of the penis in hot water several times, at least twice, daily. This procedure aids the natural forces in combating the disease and if carried out at times of micturition it lessens ardor urinæ. After each immersion the parts should be carefully dried with absorbent cotton and dusted with boric acid powder, especially in the folds and grooves about the prepuce.

Do not allow the patient to use a cotton plug over the meatus held in by the prepuce. This is a common practice and a very vicious one, as it prevents nature from throwing off the poisonous discharge, which she ordinarily does, by damming it back in the canal and about the preputial folds.

Also advise against the gonorrheal bag, either the "home-made" or the "store" kind. The best means of preventing the soiling of the clothes by discharge is that advised by my former teacher, Dr. J. N. Hyde, of Chicago. It is a piece of common white cloth (muslin) pinned to the inner side of the shirt or undershirt and tucked in about the genitals. This can be burned or washed when soiled and a new one inserted. It is very effective, is cheap and, above all, it is clean.

The patients should all be cautioned against compressing the organ to rid it of the discharge. This is a very bad practice, as it tends to extension and prolongation of the inflammation.

In conclusion I would try and impress further the dangers of the use of a syringe in these cases. It is a valuable adjunct to other methods in certain classes of cases, but here it is very wrong to use it, in my opinion. It has undoubtedly been the cause of many a swollen testicle with its accompanying possibilities of disastrous results and also of other complications of the disease. Let us discard these old, time-worn weapons against the disease until we get absolute indication for their use. It has become a habit with many to prescribe an injection the minute the diagnosis of gonorrhea is made. This is all wrong, as much so as the habit of the old-time doctors of bleeding all patients. The urethral syringe has its place in gonorrhea, but it is more limited than its wide use would lead us to suppose. Let us keep it in its place until needed.

Familial Testicular Atrophy.—Debove reports the case-histories of a family with atrophy of the testicles. One patient, a man of 62, died of phthisis. His mother's uncle and brother and 2 of his own brothers showed testicular atrophy. Thus sterility may be hereditary, due to atrophy of the testicles. This heredity is not fatal, since some members of each generation escape, and are capable of bearing offspring. (*La Médecine Moderne*, May 14, 1902).

[M. O.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending August 9, 1902:

SMALLPOX—United States.

			C.	D.
ALABAMA:	Mobile.	Aug. 2.	1	
CALIFORNIA:	Los Angeles.	July 19-26.	1	
	San Francisco.	July 20-27.	7	
	Denver.	July 19-26.	2	
COLORADO:				
DISTRICT OF	Washington.	July 27-Aug. 2.	3	
COLUMBIA:	Belleville.	July 27-Aug. 2.	6	
ILLINOIS:	Chicago.	July 27-Aug. 2.	1	
	Indianapolis.	July 27-Aug. 2.	5	
INDIANA:	Covington.	July 27-Aug. 2.	7	
KENTUCKY:	Baltimore.	July 27-Aug. 2.	1	
MARYLAND:	Boston.	July 27-Aug. 2.	3	
MASSACHUSETTS:	Cambridge.	July 27-Aug. 2.	6	2
	Chelsea.	July 27-Aug. 2.	1	
	Everett.	July 27-Aug. 2.	2	
	Fall River.	July 27-Aug. 2.	1	
	Lowell.	July 27-Aug. 2.	1	
	Malden.	July 27-Aug. 2.	1	
	Medford.	July 27-Aug. 2.	2	1
	New Bedford.	July 27-Aug. 2.	1	
	Newton.	July 27-Aug. 2.	1	
	Somerville.	July 27-Aug. 2.	2	
MISSOURI:	St. Louis.	July 28-Aug. 3.	14	
NEBRASKA:	Omaha.	July 27-Aug. 2.	3	
NEW HAMPSHIRE:	Nashua.	July 27-Aug. 2.	1	
NEW JERSEY:	Hudson County, Jersey City included.	July 28-Aug. 3.	9	3
	Newark.	July 27-Aug. 2.	4	2
NEW YORK:	Elmira.	July 27-Aug. 2.	1	
	New York.	July 27-Aug. 2.	4	5
NORTH CAROLINA:	Hancock.	Aug. 2.	1	
	Newbern.	Aug. 2.	1	
OHIO:	Cincinnati.	July 26-Aug. 1.	7	
	Cleveland.	July 26-Aug. 1.	41	2
PENNSYLVANIA:	Butler.	July 10-17.	2	
	Erie.	July 27-Aug. 2.	2	
	Johnstown.	July 27-Aug. 2.	6	1
	McKeesport.	July 27-Aug. 2.	2	
VERMONT:	Burlington.	July 27-Aug. 2.	1	
WASHINGTON:	Tacoma.	July 27-Aug. 2.	3	
WISCONSIN:	Milwaukee.	July 27-Aug. 2.	2	

SMALLPOX—Foreign.

AUSTRIA:	Prague.	July 5-19.	3	
BELGIUM:	Antwerp.	July 12-19.	3	
COLOMBIA:	Cartagena.	July 7-13.	1	1
GREAT BRITAIN:	Birmingham.	July 12-26.	5	
	Liverpool.	July 12-26.	16	
	London.	July 12-19.	48	15
INDIA:	Bombay.	June 17-July 8.	17	
	Calcutta.	June 21-July 5.	3	
	Karachi.	June 22-July 6.	3	1
	Madras.	June 21-July 4.	4	
ITALY:	Naples.	July 5-12.	2	
	Palermo.	July 5-12.	13	
MEXICO:	City of Mexico.	July 13-27.	4	3
RUSSIA:	Odessa.	July 5-19.	5	
	St. Petersburg.	July 5-12.	12	2
	Warsaw.	July 5-12.	5	

STRAITS SETTLEMENTS:	Singapore.	June 7-14.	1	
SWITZERLAND:	Geneva.	June 28-July 12.	1	

YELLOW FEVER.

COSTA RICA:	Port Limon.	July 17-24.	2	
MEXICO:	Coatzacoalcas.	July 12-26.	8	4
	Vera Cruz.	July 19-26.	19	9

CHOLERA.

CHINA:	Amoy.	May 31-June 14.	120	
		cases estimated.		
	New Chwang.	To June 28.	330	
	Tientsin.	June 21-28.	121	126
INDIA:	Bombay.	June 7-21.	581	401
	Calcutta.	June 17-July 8.	2	
JAPAN:	Ehime Ken.	June 21-July 5.	47	
	Fukuoka Ken.	—	1	
	Nagasaki Ken.	July 3-5.	49	7
	Saga Ken.	July 5.	2	2
	Shizuoka Ken.	June 1-July 3.	62	33
	Tokyo Fu.	—	1	
	Tokushima Ken.	June 23-July 3.	15	12
JAVA:	Batavia.	July 4.	1	
STRAITS SETTLEMENTS:	Singapore.	June 1-19.	39	30
		June 7-14.	51	

PLAGUE—United States.

CALIFORNIA:	San Francisco.	July 18.	1	1
	San Francisco.	July 21.	1	1

PLAGUE—Insular.

HAWAIIAN ISLANDS:	Honolulu.	July 23.	1	
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PLAGUE—Foreign.

INDIA:	Bombay.	June 17-July 8.	110	
	Calcutta.	June 21-July 5.	64	

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. Reprints 1250 Original Articles will be furnished gratis to Authors making the request.

The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8.

VOL. X, NO. 8

AUGUST 23, 1902

\$5.00 PER ANNUM

The Treatment of Chronic Nephritis with Mineral Drinking Waters and Mineral Baths.—

The number of mineral waters recommended for the cure of Bright's disease by the owners of springs and their agents is legion. That any or all of these may be of service in some cases is probably true, although it has commonly been conceded that it is not on the mineral constituent that the advantage depends, but rather on the quantity of water ingested. It will surprise many, therefore, to learn that so great an authority as von Noorden holds that water may be harmful. He announces, in the first place, that in cases of contracted kidney and the early stage of heart weakness the elimination of the products of metabolism is not influenced to any extent by a reduction of the amount of fluid taken daily. Albumin does not seem to be materially changed either by an increase or decrease in the amount of liquid ingested. Moreover, in Bright's disease, when the heart is failing, a diminution of the quantity of water proves beneficial. The reduction of the quantity of liquid is advised in the early stages. Von Noorden has also noticed that after the ingestion of a large quantity of water in contracted kidney there is enlargement and weakening of the heart. In the advanced stages, with a corresponding degree of arteriosclerosis with hypertrophy of the heart, restriction of liquid is imperative. The average quantity of liquor advised is two pints. Prof. Ewald confirmed von Noorden.

The bath treatment was based on the assumption that the action of the skin had a certain connection with the functions of the kidneys and that by stimulating the former a disorder of the kidneys might be benefited. J. M. Groedel (*Treatment of Chronic Nephritis, Practitioner*, Dec., 1901) has never seen any curative results from the drinking of waters. His experience is that the bath treatment in cases of parenchymatous nephritis is contra-indicated. He divides cases of contracted kidney into two groups. In the first group are those in whom the circulatory system is not greatly disturbed. The second group consists of those who show an advanced degree of insufficiency of the heart, which is

more or less distinctly dilated. In the first group of cases the Nauheim baths are suitable, but in the second group baths are contra-indicated. It has been said that carbonic acid saline baths always increase the bloodpressure, but this is not the fact, and it has been proven that in cases of arteriosclerosis we are able to regulate the baths in such a way as not to increase the bloodpressure, but rather to reduce it. If this is the case, these baths should also be beneficial in contracted kidney. The baths of Nauheim have the effect of reducing the bloodpressure for a longer period than the artificial baths. The more carbonic acid the bath contains, the more the temperature may be lowered, but not below 90° F. The baths seem to dilate the peripheral vessels, a condition brought about by the irritation of the gas and the reduction of the bloodpressure; they lighten the work of the heart and lead to a saving of that organ, which gives it a chance of recovering strength, and this is still further promoted by the direct stimulating and toxic effect of these baths. The increase in the diuresis is ascribed to the strengthening of the heart.

Medicolegal Questions in India.—The June number of the *Indian Medical Gazette* is wholly devoted to papers on medicolegal topics. The contributions are all practical and throw a most interesting light on the social conditions of India and on the dramatic and difficult character of the practice of medicine therein. In spite of the long rule of England and the persistent efforts to introduce European civilization, it is evident that the native customs and standards of morals prevail largely. Many persons hold to the opinion that the benefits and glories of western civilization are so marked that they have merely to be shown to other nations to be at once adopted, but the fact is that most of the Moham-medan, Buddhistic and Brahminic races have failed to appreciate nineteenth century progress or, at least, the specimens of it that have generally been furnished.

Turning to the individual papers, we find first a very valuable series of reports on cases of poison-

ing, included in two articles by Major C. H. Bedford, M. D., and Captain C. J. Robinson-Milne, M. D., respectively. Both these contributors are of the Indian Medical Service. Poisoning is a very frequent mode of murder in India, obviously due largely to the greater likelihood of escape from suspicion. Dr. Bedford asserts confidently that no country furnishes more cases of this form of crime than India, and large as is the list of reported cases, he thinks that the undetected ones are much more numerous. Arsenical poisoning is one of the common forms, and the large experience in this has led to the formulation of some data which merit careful attention by experts. Opium is the favorite for suicidal purposes. A species of datura is employed in drugging liquor or food for aiding in robbery. The drug is regarded by the natives as of minor toxic power and when death results it is generally by a mistake in the dose, the object of the robbers being, as a rule, to produce only short unconsciousness. Passing over some poisons not unfamiliar to western lands, we note, as unusual methods, the use of camphor, cannabis indica and kerosene. In connection with cannabis indica Dr. Bedford refers to an interesting case, termed the "Bengal Club murder." Blood-stains on a garment were found to contain *filaria sanguinis hominis*, and on examination of some blood from the accused similar parasites were found. This confirms the value of a suggestion, made some years ago in a lecture at the Franklin Institute in Philadelphia by Dr. W. M. L. Coplin, to the effect that the presence of parasites known to be peculiar to human beings might occasionally be a means of identifying the nature of blood-stains.

Valuable data in regard to examination for alleged rape are given in an article by Arthur Powell. He tells us that the curious superstition that intercourse with a virgin will cure gonorrhea is current in India as well as in Europe, and naturally leads to a good many rapes of children. Incidentally, Mr. Powell condemns the undue importance given to appearances of the hymen as indications of rape.

There is an article on wounds produced by the "lathi." The philologist who scenteth the derivation afar off and sayeth "ha ha," would be inclined to connect this word with the English "lath," for the Indian weapon is a stick about seven feet long and is used much like the shillelagh. It is a common weapon and is, therefore, a frequent cause of wounds, especially fractures of the upper extremities and head.

Other important articles are miscellaneous medicolegal notes, reports of observations on decomposition and formation of adipocere and on crime in insanity. We regret that our space does not permit

of abstracting all of these contributions. The publication should receive the attention of all interested in medicolegal work.

The Sanitary Condition of Havana.—Dr. John Guiteras writes to us to protest against a statement which has recently been going the rounds of the newspapers to the effect that the sanitary condition of Havana has been rapidly deteriorating since the withdrawal of the American government from Cuba. This statement slipped into our news items, and we are glad to have the opportunity to correct it on the high authority of Dr. Guiteras. We have also the report by Dr. Carlos J. Finlay, chief sanitary officer of Havana. This report makes a very satisfactory showing for the month of June. The number of deaths for that month represented an annual death-rate of 23.56 per 1000 inhabitants. This is not far above the death-rate for New York, Boston and Baltimore, all of which American cities show a rate slightly in excess of 20 or 21 per thousand. The rate for Philadelphia, as we pointed out recently, is lower.

In Havana a slight increase in the number of deaths from enteritis and typhoid fever had occurred in June. This was possibly due to the objectionable methods employed by Chinese truck gardeners, and also to a break in one of the mains supplying the city with drinking-water. The alertness and energy of the health department of Havana were shown in the way they met these conditions. The vegetables were found contaminated with a virulent colon bacillus, which, when obtained from the washings, was capable of killing guinea-pigs in less than 48 hours. The city of Havana, and the whole island in fact, had continued free from yellow fever originating within their boundaries. Two cases, which had been imported from Vera Cruz, were treated after most approved methods.

It would be strange, indeed, if, with the experts now in charge, the sanitary conditions of Havana should in any way deteriorate; and it will be time for the public press to cry out when the figures show a loss of control. With such men as Dr. Finlay and Dr. Guiteras on the scene, there would appear to be neither reason for, nor danger of, any recurrence to former conditions.

The Atlantic City "Tidal Wave."—A commentary on the real progress in the emancipation of the human mind from superstition is suggested by the scare that has been evident concerning the possibility of the destruction of Atlantic City by a "tidal wave." Those who have not been in that resort this summer have not had opportunity to note the extent to which anxiety penetrated all classes.

Here is a community of over one hundred thousand persons, representing fairly all that is best (and, unfortunately, also some that is worst) in American life, yet the sensational remarks of an ignorant negro were sufficient to occasion disquiet among all classes. We should not be surprised if some alarm had been felt by the lowest servant class, many of whom can scarcely read and most of whom can hardly be considered to have thinking powers, but the influence was not limited to this level. As far as we can discover, the rumor originated in an article in the Sunday edition of a Philadelphia newspaper, in the form of an interview with a negro exhorter, who claimed that the wickedness of the city would bring down upon it condign punishment. The prophet was made to claim to have predicted the Johnstown disaster and Galveston cyclone, but the whole article was framed to show the absurdity of the claims. Unfortunately, what the reporter intended to be funny was taken as earnest, and the result was that for more than a month intelligent persons, resident or intending to sojourn at this seashore resort, were asking scientific men as to the probability of the catastrophe. The hotel-keepers became aware of timidity on the part of guests and it was deemed necessary to ask the intervention of the weather service to contradict the rumor. The statements of the weather bureau were, by the way, rather weak and perhaps hardly adapted to reassure the more timid. The fear may have cost Atlantic City some money, but the much sadder phase of the affair is the sidelight it throws on general intelligence.

One Way of Looking at Quackery.—Mr. W. H. Loyd collected for the *Philadelphia Medical Journal* the recent legal decisions regarding what he has very well termed "the pseudomedical cults." It will be seen from this summary (*Department for Cooperation and Original Research*, June 7, 1902) that the law, if infallible, has a most extraordinary diversity of manifestations, for in one court a certain thing will be declared to be in accordance with the common law, and in another to be absolutely opposed to it, and this is not merely the result of different statutes in different States. It must have impressed all who have thought at all about the subject that nearly all these pseudomedical cults depend upon something other than reason to secure their support. Thus, all the schools of faith-cure, Christian science, Dowieism, etc., depend upon the stimulation of the religious faith; the schools of magnetism, hypnotism, appeal to a somewhat lower order of the supernatural; still others pretend to the possession of exclusive knowledge, and others urge their superi-

ority on account of what are claimed to be the errors and ignorance of the medical profession. Now it seems to us that the courts in deciding these cases have taken not only a narrow, but, in some respects, a false view. The question which an invalid naturally asks himself or herself is: Can I be cured? If, therefore, one person claims to cure by prayers, another by laying on of hands, another by absent hypnotic treatment, another perhaps by some other method of cure, by ointment, a secret herb or what not, the point that should be raised is: Can these methods be efficient? And the burden of proof should rest entirely with their promulgators. This is the general rule in the medical profession, because when a man suggests a new form of treatment he must establish its value both by experiment and practice, and he must show, moreover, by argument, that it is reasonable. Now if these self-styled curists fail to establish their contentions, or fail to show that they have taken reasonable precaution by experiments or practice to ascertain that their methods are correct, they are persuading their patients to follow a line of treatment which not only is not certain to help them, but is more than likely to do them harm, either actively or passively. And in accepting remuneration therefor, they are guilty of fraud, and in delaying the employment of more experienced and presumably competent medical attention, possibly of increasing the severity of the disease. We cannot understand why the courts have hitherto refused to perceive that, when a man breaks his arm and a Christian scientist prays over it, and by long delaying suitable surgical treatment causes the man ultimately to lose his arm, he is guilty of malpractice as well as fraud, although he may not have touched the man or may not even have seen him.

The world is, and always will be, quack-ridden, and it may be impossible to save the ignorant from the results of their folly, but in the present stage of civilization it should be the duty of the courts to protect them to the utmost limit of the law.

Privileged Murder.—The man who drives an automobile along the highways at 60 miles an hour courts death for himself and threatens it to others. The death of young Fair by an automobile accident in France need greatly surprise or seriously grieve no one. If the young man had lived much longer he would probably have killed some one whose life was much more valuable than his own. A more foolhardy and more unjustifiable caprice than this fast driving of automobiles is impossible to conceive. Sympathy for this victim of a self-inflicted immolation should be tempered by a consideration

of the fact that Fair was deliberately, recklessly and selfishly imperilling the lives of others when he lost his wife's and his own.

The wonder is that such things can be in France—the country of omnipresent police surveillance. Fair's machine was equipped with an engine of 40 horse-power, and could attain a speed of 70 miles an hour. It was being run at 60. Why we should prohibit locomotives on the public streets, and yet tolerate such infernal machines, is hard to see. The penalty should be severe in the extreme. The public cannot afford to wait until all the fast automobilists kill themselves off. It should take a hand itself.

Arsenic and Cancer.—We referred recently in these columns to Mr. Jonathan Hutchinson's new theory that arsenic is a cause of cancer. The subject is exciting some comment in the medical press—as is usually the case with Mr. Hutchinson's ideas. The *Scottish Medical and Surgical Journal* thinks it unfortunate that Mr. Hutchinson should convey to the public the idea that arsenic is a drug which it is positively dangerous to use. The Scottish journal thinks that carcinoma of the skin may occasionally follow from the prolonged use of arsenic, but this is so in those cases only in which the drug has been used for years by patients on their own responsibility. But this seems to us like begging the question. Whether or not the drug is used by patients "on their own responsibility" matters not at all. If it causes cancer, Mr. Hutchinson's opinion is confirmed. We judge, however, that it will take more than a mere "ipse dixit" to settle such a question in etiology.

The *Scottish Medical and Surgical Journal* was especially sceptical about Mr. Hutchinson's statement that arsenic was prescribed in London "once in every fourteen prescriptions." It, therefore, started an inquiry of its own in Edinburgh and was surprised, it says, to find that the custom in that city was not far from what was claimed for London. One large firm reported that in their latest 1000 prescriptions 44 contained arsenic. Another firm reported 35 for 1000. But these figures are only about *one-half* of what Mr. Hutchinson claims for London. That arsenic is prescribed nearly three times as often as formerly was claimed to be demonstrated.

These few facts and figures are interesting, but they are far from proving anything—much less that arsenic as a drug is the active cause of cancer. Like some other of Mr. Hutchinson's theories (especially the one that a fish-diet causes leprosy), this one has too much superstructure for its base.

Medical Progress in China.—We learn from the *China Medical Missionary Journal* that medical missionary work is gradually being re-established in China. It was sadly interrupted by the Boxer insurrection in 1900, and some of its best workers were sacrificed. Here in Philadelphia we have good cause to remember it, for among the lost were two physicians who were practically Philadelphians—Dr. Yardley Taylor and Dr. C. Van Rensselaer Hodge. At Pao-ting-fu, where these two young men (both of them graduates of Princeton and of the University of Pennsylvania) were murdered, a hospital is being erected to Dr. Taylor's memory by some of his Princeton classmates.

According to a correspondent of the *China Medical Missionary Journal*, the brightest outlook for medical missionary work lies now in a combination of interests, a fusion which perhaps could never have taken place but for the fiery trial through which the missionaries have come. This accords with the ideas of some of the home critics of these various missions—they are too much divided. If they will unite their interests, they will probably accomplish more in their propaganda of scientific medicine in the Orient.

Current Comment.

EMULATING THE KING.

Recent events will doubtless blacken still more the bad character which the appendix has gained for itself. It is likely enough that there will be a rush of people who wish to be considered "smart" to have their appendices removed, just as the courtiers of Louis the Fourteenth flocked to the surgeon who operated on his sacrosanct person for *fistula in ano*, and begged him to enable them to say that they, too, had been *opérés*. This "foolish-confounded clay" man is so impressionable that if an exalted person suffers from any malady, the disease at once becomes fashionable, and it is considered a mark of breeding to have it.

—*The Practitioner*.

THE ABUSE OF AUTOMOBILES.

The automobile is a vehicle whose owner is entitled to the same rights of the road as the owner of any other vehicle, but no more. In the public interest it is necessary to put restraints upon the speed at which horses shall be run over public roads, and there is much greater need for regulating the rates for automobiles. What the rates should be is a debatable question, but they should be rates that are fair to the automobilist and to the public, and protective to both. The public has a right to know that the machines to be driven through the streets of a big city have the necessary safety appliances, and that the driver is competent. It also has a right to limit the speed at which such machines should be driven, so as to insure the safety of all concerned.

—*The Public Ledger*.

MEDICINE AND RELIGION.

The perusal of a letter written 61 years ago brings forcibly to view the change in medical practice which has occurred during this period. The writer was the 9-year-old daughter of a clergyman, and she describes how the

doctors dealt with her father in a case of sore throat. First, they bled him; the next day they gave him calomel and jalap; and the third day dosed him with a powerful emetic. The effect upon the good clergyman is shown in a letter from him, dwelling upon the unsatisfactory state of his spiritual condition and rejoicing that life is short, so that the end will at the most soon come. There is unconscious humor in the apparent absence of any suspicion that the doctors had anything to do with his state of spiritual gloom. As he lived 45 years longer, and to the age of 85, it is apparent that he had a constitution which was too much even for the old-school doctors. Here is a problem for the philosopher: To determine the relation between the old practice of medicine and gloomy views of religion. No doubt bad feeling and heroic systems of medical treatment are responsible for a very large amount of the heresy that is abroad in the world.

—*The Army and Navy Journal.*

Reviews.

The Principles of Bacteriology: A Practical Manual for Students and Physicians. By A. C. Abbott, M. D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Sixth edition; enlarged and thoroughly revised, with 111 illustrations, of which 26 are colored. Lea Brothers and Co., Philadelphia and New York. 1902. 614 pp. and index. Price, \$2.75.

When a publication reaches its sixth edition in eleven years, neither reviewer's praise nor critics sifting is likely to modify its assured success. Frequent editions afford opportunity for revision and enable the author to bring the subject up-to-date. Dr. Abbott has not neglected the opportunities and, as in previous revisions, the present shows additions on almost every page.

The work is divided into two parts, although the chapter numbering is continuous. The first 13 chapters (244 pp.) are devoted to general considerations—historical review, classification and technique—and the remainder of the volume (15 chapters, 386 pp.) to the practical application of principles and working-details previously laid down. Where special technique or detailed direction are needed, they are also incorporated in the last mentioned part of the work, but needless repetition is avoided, thereby rendering the book less bulky. The beginner is instructed as to the methods by which material can be obtained and how it may be utilized. The pyogenic bacteria, gonococcus, diplococcus intracellularis meningitidis, bacillus pestis, micrococcus lanceolatus, the tubercle bacillus and the allied forms, pathogenic streptothrices, the bacilli of glanders, diphtheria and typhoid, the colon bacillus and the bacillus of dysentery and closely allied organisms, the pathogenic spirilli, the bacillus anthracis, bacillus of tetanus, bacillus of symptomatic anthrax and a few minor bacteria are considered in about the order mentioned. Then follows a concise, practical and up-to-date chapter on infection and immunity, the volume closing with chapters on the bacteriological study of water and air and methods of testing antiseptics. An appendix gives a list of apparatus and materials needed by a beginner.

In discussing bubonic plague no mention is made of Haffkine's growth of the organisms in bouillon, or of a 2% sodium-chloride-agar for the demonstration of involution forms. The greenish halo that sometimes appears around the chocolate brown color of the bacillus Mallei upon potato is not described. The chapter on diphtheria is complete; the only difference to which the author calls attention as existing between the diphtheria bacillus and the pseudodiphtheria bacillus is the degree of virulence. The fir-tree growth of the bacillus anthracis in stab cultures in gelatine, and Kitasato's granulated sugar filter for the examination of air receive no mention. Meningococcus as a synonym for pneumococcus (p. 320) will confuse the

student. The index would have been more useful had it contained synonyms, for example, actinomyces, bacillus pestis, meningococcus, pneumococcus, etc.

The illustrations, both colored and engraved are unexceptional; the typography is excellent, and the binding satisfactory. [W. M. L. C.]

Saunders' Medical Hand-Atlases. Atlas and Epitome of Abdominal Hernias. By Privatdocent Dr. Georg Sultan, of Göttingen. Edited, with additions, by William B. Coley, M. D., Clinical Lecturer on Surgery, Columbia University (College of Physicians and Surgeons). With 119 illustrations, 36 of them in colors, and 277 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$3.00 net.

The superior worth of Saunders' Medical Hand-Atlases is well recognized. This series of books has done much to simplify the work of professors in colleges and to disseminate a practical knowledge of medical and surgical subjects. In the present volume we have a complete review of the interesting subject of hernia in all of its many phases. We find mention not only of the usual forms of inguinal, femoral and umbilical hernia, but special sections are dedicated to the rarer varieties, such as the sciatic, the inguinoperineal, diaphragmatic hernia and the various abdominal forms. Numerous illustrations—119 in a volume of but 277 pages—add still more to the value of the work. The editorial labors of Dr. Coley have done much to preserve the original force of the text. There are very few criticisms to be made and much to be commended. It is needless to say that no surgical library would be complete without a copy. [W. A. N. D.]

A Text-Book of Practical Therapeutics: With especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. With special chapters by Drs. G. E. deSchweinitz, Edward Martin and Barton C. Hirst. New (9th) edition. In one octavo volume of 851 pages, with 105 engravings and 4 colored plates. Cloth, \$4.00; leather, \$5.00; half morocco, \$5.50, net. Lea Brothers & Co., Philadelphia and New York.

Dr. Hare's Therapeutics has passed through 8 substantial editions and now makes its appearance in its ninth edition, within 10 years, an indication of the favor which it is the fortune of few books to attain. The present edition shows very careful revision of the entire text and the addition of about 100 illustrations which are designed to enlighten the various procedures described. The work preserves the same form as the earlier editions. It embraces an introductory of general therapeutic indications in which the mode of administering drugs, prescription-writing, classification and collated subjects are included. The drugs are arranged alphabetically. Part III consists in a description of remedial measures other than drugs and valuable advice is given upon feeding the sick. Part IV embraces a description of the various diseases, also arranged alphabetically, and lays down practical rules for their treatment. In the part of the work devoted to drugs Dr. Hare has included what he states in his preface to be: "A large number of important new remedies which have stood the test of clinical experience during the past two years..." In dealing with the newer remedies the author was confronted with a difficult task. We observe with some astonishment that only the favorable claims made for the preparations have been mentioned, while a considerable literature dealing with the untoward effects of these particular drugs has not been referred to. The necessity for brevity and the effort to avoid controversial points may in part explain these omissions. As a whole, the work bears evidence of practical treatment and editorial discrimination. The special sections contributed by Dr. Edward Martin, Dr. George deSchweinitz and Dr. B. C. Hirst are all that could be desired. For 10 years Hare's Therapeutics has been a ready reference-book for the student and practitioner and this greatly improved edition cannot help but add to its reputation. [T. L. C.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA

The Health of Philadelphia.—During the week ending August 16 the number of cases of typhoid fever and of diphtheria reported has slightly increased. Scarlet fever remains about the same, though there were no deaths from diphtheria or scarlet fever. Eleven deaths occurred from typhoid fever and one death from smallpox, only one case of which was reported. The total number of deaths for the week was only 446, much less than either last year or the year before, for the corresponding week.

American Steel and Wire Company's Hospitals.—It has been decided to establish a hospital for the treatment of emergency cases on the grounds of each of the 22 plants of the American Steel and Wire Company. The plans for the buildings are now being prepared, the total cost of buildings and equipment reaching almost \$300,000. A temporary emergency hospital was erected a year ago for the company, at Allentown, and has proved invaluable. The hospital buildings will be 2 stories high, with baths, sitting rooms, library, dining room, apartments for nurses and six beds. There will also be a dispensary for employes needing attention. Six nurses, 2 druggists, a resident physician and a thorough ambulance service will be attached to each hospital. The company's plants are scattered throughout the eastern part of the United States, there being 3 in Pittsburg and one in Allentown; Joliet, Ill.; Cleveland, O.; Fall River, Mass.; Detroit, Mich.; etc.

Philadelphia Hospital.—The new children's department is rapidly approaching completion. Owing to delay in getting the heating apparatus into place, the new children's home will not be opened until October. There will then be accommodations for 80 children, twice as many as are now in the home.

New Hospital at Coatesville.—The ground for the new hospital, to cost \$60,000, has recently been broken. Over half of the amount necessary for the erection and equipment of the hospital has already been donated.

Oil City Hospital.—An anonymous donor has given \$25,000 as an endowment fund for the Oil City Hospital.

Municipal Hospital, York.—The health board, at its last meeting, decided to ask for an appropriation of \$10,000 for erecting a municipal hospital. Attention was called to the fact that smallpox would probably visit York again this winter and the city needs a hospital to cope with such an emergency.

Columbia Hospital.—The cornerstone of the new Columbia Hospital, to cost \$25,000, was laid August 16.

Bequests.—By the will of the late Henry Amole, the Chester County Hospital and the Chester County Hospital for the Insane have each received \$6,000. In the latter institution a home for nurses will be built.

NEW YORK AND NEW JERSEY.

The Health of New York City.—According to the report of the Health Department, for the week ending August 2, there were fewer cases of contagious diseases in New York City than have occurred in years. While the average has been about 1,000 per week, the total recorded was only 676. There were only 4 cases of smallpox reported, as compared with 11 during the previous week.

Insanity in New York.—All previous insanity records have been broken this summer. Thirty-two patients have been admitted to the Bellevue Hospital insane pavilion in 3 days, 21 of them being women. Most of these cases are incurable and the greater majority are violently insane. Formerly the number of men and women admitted has been about the same. No cause for this unprecedented increase in insanity, especially in women, is known.

Biographical Dictionary of Scientists.—Under the direction of Professor J. M. Cattell, of Columbia University, who has been selected by the Carnegie Institute, a complete directory and biographical dictionary of the men of science in the United States will soon be compiled. Blanks have been sent out inquiring into the department of study, honors conferred, books published, subjects of research and researches in progress.

Typhoid Fever in New Brunswick, N. J.—The prevalence of typhoid fever during the past few weeks has led to an

investigation of the city's water-supply. This has been found to be polluted, containing many typhoid bacilli.

Smallpox in Camden, N. J.—The Municipal Hospital was opened again August 15, to accommodate one case of smallpox, after having been closed for over 2 weeks. Two more cases were discovered and moved there August 18. The smallpox hospital in Elizabeth has just been closed, no further cases having developed.

Bequests.—By the will of the late William Clark, of Newark, N. J., \$10,000 are left to the Newark Orphan Asylum, Home for the Friendless and Protestant Foster Home, each, with \$6,000 to the Newark Eye and Ear Infirmary.

MISCELLANY.

Costa Rican Hospitals.—The government of Costa Rica intends to erect 3 new hospitals at Port Limon, one of them to be used exclusively for isolating contagious diseases. The U. S. Fruit Company's, Costa Rica Railroad's and charity hospitals will be removed outside of the town in one year, as their existence in their present situation may possibly cause grave danger to the health of the town.

Railway Accidents.—During January, February and March, 813 persons were killed on American railroads, 212 of them in accidents. The total number of those injured was 9958, 2111 in accidents. While Great Britain has neither the passenger and freight traffic, nor the miles of railway that the United States possesses, not a single passenger was killed during 1901, according to a recent official report on the railways of Great Britain.

Typhoid Fever in Alaska.—It is reported that typhoid fever is especially prevalent in the mining camps in the vicinity of Nome. The disease is due to the fact that the miners drink the tundra water.

Immigration into the United States.—In the year 1886-87, 623,000 immigrants reached the United States from Europe. In 1894-95, 258,536, in 1901-02, 522,000 immigrants arrived. While the total in 1902 is but little under the total for 1897, immigrants now come from the East and South instead of from the North. They are now Latins and Slavs, not Teutons. While formerly the greatest number came from Germany, with England, Ireland and Scandinavia next, the majority now come from Italy, with Austria-Hungary, Russia and Scandinavia following.

Dengue Fever.—It is announced that dengue fever has appeared in a mild form in Canton, China, during the past week.

Yellow Fever in Havana.—The steamer *Vigilancia*, which reached New York August 9, from Havana and Mexico, was detained at quarantine for disinfection, because a man had been removed at Havana, suffering from yellow fever.

Bubonic Plague.—The plague continues in Formosa, 1987 cases with 1515 deaths having occurred between January 1 and July 8, 1902.—A case of plague is also reported at Honolulu, H. I., July 23.

Cholera.—But few new cases of the disease have appeared in Manila, though large numbers are still reported in the provinces. The total number of cases reported, up to August 17, is 23,636, with 17,596 deaths. The authorities, however, believe that the total number of cases has reached 30,000. Surgeon-General Forwood believes the cholera situation to be well under control. Dr. J. M. Holland, U. S. A., who recently returned from Manila, has great faith in treating cholera by subcutaneous salt injections. An examination is soon to be held in Washington for selecting a bacteriologist to go on duty at Manila, to assist Lieutenant Strong, of the Army Medical Corps, in searching for the bacillus of Asiatic cholera.—Cholera has spread from Manila into China and Japan. In Japan, up to the middle of July, 231 cases were reported with 142 deaths. In Tientsin, 1049 cases, 764 of which were fatal, occurred before July 11.—It is also announced that the cholera is increasing in Cairo and in the provinces of Egypt.—In Manchuria the disease continues to spread and isolated cases are reported throughout Siberia. The last reports state that 274 cases, with 179 deaths, have occurred at Blagovetchensk; 445 cases, with 285 deaths, at Port Arthur; and 33 cases, with 20 deaths, at Dalny.

Obituary.—Dr. James M. Allen died in Milwaukee, Wis., August 11, aged 71 years.—Dr. Julius G. E. Kasten died in St. Paul, Minn., August 11, aged 72 years.—Dr. B. M. Walker died in Connelly's Spring, N. C., August 12.—Dr.

Martin L. Holbrook died in New York City, August 12, aged 71 years.—Dr. Edward P. Scales died in Newton, Mass., August 14, aged 71 years.—Dr. Frederick A. Warner died in Clifton Springs, N. Y., August 14, aged 72 years.—Dr. Nicholas Williamson died in New Brunswick, N. J., August 15, aged 58 years.—Dr. Frank Seabourne died in Bordentown, N. J., August 17, aged 33 years.

GREAT BRITAIN, ETC.

King Edward Cured.—The *British Medical Journal*, August 14, states that there is no truth whatever in the recent rumors that the King is to undergo a second operation. It declares that the King's recovery is complete and that his general health is better than for a long time past. After his coronation, King Edward presented Osborne House, the residence of the late Queen Victoria, on the Isle of Wight, to the nation as a convalescent home for officers of the army and navy whose health has been impaired in rendering service to their country.

The Erection of a Sanatorium for Tuberculosis in England.—The advisory committee, appointed by the King in connection with the erection of a sanatorium for tuberculosis, has announced that 180 essays were sent in in competition for the three prizes announced in the *Philadelphia Medical Journal*, February 1, 1902. The committee were unanimous in making the awards, and, with the approval of the King, the prizes were awarded in the following order. Dr. Arthur Latham, with Mr. William West as architect, London, won the first prize; Dr. F. J. Wethered, with Messrs. Law and Allen, architects, London, received the second prize; and the third prize was awarded to Dr. E. C. Morland, with Mr. G. Morland architect, Croydon. Essays by the following were awarded honorable mention: Dr. P. S. Hichens, Northampton, with Mr. R. W. Schuetz, London, architect; Dr. Turban, Davos, with Mr. J. Gros, Zurich, architect; Dr. Jane Walker, with Messrs. Smith and Brewer, architects, London; and Dr. J. P. Wills, Bexhill, with Mr. Wills, London, architect. The committee awarding the prizes consisted of Drs. W. H. Broadbent, chairman; R. D. Powell, Felix Semon, Hermann Weber, C. T. Williams; P. Horton-Smith and J. F. H. Broadbent, secretaries.

Measles in Dublin.—An epidemic of measles has existed in Dublin during the month of July past, 196 cases having been reported in one week. As only 28 were treated in hospitals, it is supposed that the majority of the cases were mild in type.

For Cancer Research.—Almost \$7,000 have already been subscribed by private individuals to the fund for developing the work of the cancer research department of the Middlesex Hospital, London. It is estimated that \$650,000 will be required for these investigations.

CONTINENTAL EUROPE.

Tuberculosis Hospital in Portugal.—It is announced that the Queen of Portugal has recently given over \$20,000 for establishing a hospital for tuberculosis in Portugal.

Congress for Improving the Condition of the Blind.—This International Congress was opened in Brussels, August 6, under the patronage of the King of Belgium and Duke Charles Theodore of Bavaria. The delegates, including many well-known ophthalmologists, are seeking the best means of enabling the blind to gain a livelihood, and examining the methods of recreation for the blind adopted in various institutes.

Death of Professor Schenck.—Dr. Samuel Leopold Schenck, for 30 years professor of embryology at the University of Vienna, who, in 1898, announced his theory for determining the sex of infants before birth, died at Schwanberg, Austria, August 18, aged 62 years. On account of the notoriety caused by the publication of his book on the regulation of sex, he was forced to give up his professorship and the directorship of the Embryological Institute in Vienna.

Congress of French Alienists.—At the twelfth annual congress of neurologists and alienists of France, held at Grenoble this month, the following officers were elected for the ensuing year: President, Professor Francoz, of Liège, and secretary, Professor Crocq, of Brussels. The thirteenth annual meeting will be held in Brussels next year. The subjects to be discussed will be the treatment of insom-

nia, agitation in mental disease and the histology of general paralysis.

Belgian Surgical Society.—The annual meeting will be held in Brussels, September 8 to 10, 1902. The subjects for discussion will be the treatment of appendicitis, the treatment of fractures of the extremities and operative asepsis of the hands, the region for operation and the materials used. The president is Dr. Charles Willems, the secretary, Dr. H. Verneuil.

In Memory of Priessnitz.—Upon the celebration of the hundredth birthday of Vincenz Priessnitz, the founder of hydrotherapy, which is soon to occur, it has been planned to erect a memorial in the city of Vienna. The committee, consisting of Professors Chrobak, Ludwig and Winternitz, are considering a suitable memorial.

Dr. Schweninger's Appointment.—Dr. Schweninger, who treated the late Prince Bismarck for years, has just been appointed professor of the history of medicine in the University of Berlin. Twenty years ago Prince Bismarck attempted to procure this position for Dr. Schweninger, but so many protests were raised throughout the universities of Germany that the appointment was not made. Dr. Schweninger, however, was made professor of dermatology, which position he held until quite recently. As we announced, August 9, 1902, he was deposed from this position this summer. His new appointment has created a storm of opposition, the professors of a number of Universities circulating a protest to the Government against the appointment, declaring that Dr. Schweninger never wrote or taught medical history.

University Notes.—**Barcelona:** Dr. A. G. Prato has been appointed professor of pathology.—**Basel:** Dr. Rudolf Masini, professor of therapeutics and materia medica, has just celebrated his 25th. year as a physician.—**Berlin:** It is rumored that either Professor von Leube, of Würzburg, or Dr. Naunyn, of Strassburg, will be chosen director of the second medical clinic, to succeed the late Dr. Gerhardt.—**Drs. L. Casper, J. Israel and C. Posner** have recently been elected honorary members of the American Urological Association.—**Prof. Ernst Remak** celebrated his 25th. anniversary as a physician July 31.—**Berne:** Dr. Theodor Kocher, professor of surgery, has been appointed rector of the University for the coming year.—**Bologna:** Dr. Ernesto Tricomi, of Messina, has been appointed professor of clinical surgery.—**Cagliari:** Dr. Giuseppe Fasola has been appointed professor of physiology.—**Copenhagen:** Dr. Israel Rosenthal has been appointed professor of medicine; Dr. D. E. Jacobson, professor of nervous diseases and Dr. C. Rasch, director of the new polyclinic for skin and venereal diseases.—**Cottbus:** Dr. Liersch celebrated his 50th. anniversary as a physician August 7th.—**Cracow:** Dr. Alexander Rosner has been appointed professor of obstetrics.—**Greifswald:** Dr. Wanjura, who recently celebrated his 50th. anniversary as a physician, was presented with an honorary diploma, July 27th., by Professor Martin, formerly dean of the medical faculty.—**Innsbruck:** Dr. Max von Vintschgau, professor of physiology, who has taught for the past 45 years, 32 of them at the University of Innsbruck, was recently presented with an album containing photographs of the members of the faculty, bound in a metal cover, on which were the shields of the Universities of Vienna, Prague and Innsbruck, at all of which Dr. von Vintschgau had been professor. This was the gift of the medical faculty of Innsbruck, upon the occasion of his retirement.—**Leipzig:** Dr. von Lesser, professor of surgery, celebrated the completion of 25 years as a teacher of surgery at the University of Leipzig, July 27th.—**Lille:** Dr. Gérard has just been appointed professor of pharmacy.—**Munich:** Dr. Rehm, formerly of Ratisbon, recently celebrated his 50th. anniversary as a physician.—**Professor von Winckel** has been appointed rector of the university for the coming year.—**Naples:** Dr. Ferdinando Massei has been appointed professor of laryngology and Dr. Vincenzo Cozzolino, professor of otology and rhinology.—**Prague:** Drs. Ludwig Knapp and Friedrich Kleinhans have been made professors of obstetrics and gynecology, and Dr. Hermann Schloffer has been made professor of surgery in the German University.

Obituary.—Dr. Otto Kremer, assistant physician to the children's dispensary in the University of Greifswald, died June 19 last, of scarlet fever, which he had contracted at the dispensary.—The death of Dr. Lefebvre, professor at the University of Louvain, Belgium, has recently been announced.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

August 2, 1902.

1. President's Address. Manchester's Early Influence on the Advancement of Medicine and Medical Education. WALTER WHITEHEAD.
2. Address in Medicine. The Study of the Natural History of Disease the Basis of all Advance in its Treatment. THOMAS BARLOW.
3. Address in Obstetrics. Carcinoma in Women, Chiefly in its Clinical Aspects. WILLIAM JAPP SINCLAIR.

2.—Barlow, in his paper on the study of the natural history the basis of all advance in its treatment, calls attention to the influence the bacteriology of diphtheria had on its treatment. Before the specific nature of the disease was understood, local applications, antiseptic inhalations, antimonials and emetics were employed with poor results; now, since the discovery of the bacillus and the antitoxin treatment, the mortality has been reduced from 1-3 to 1-2. The demonstration of the bacillus of tetanus resulted in the tetanus antitoxin, which, however, does not yield the constant results of the former. The tuberculin treatment of tuberculosis has been unsatisfactory, yet the knowledge of its specific cause has advanced our knowledge of the treatment of this disease. The demonstration of the anopheles as the exciting cause of malaria and the employment of quinine is also an example of the advancement in treatment gained from the natural history. If the maintained microbic origin of acute rheumatism is established, we shall probably get a more satisfactory explanation of the action of the salicylates. Bacteriology has done much toward the elucidation of the confused groups of meningitis and may some day result in a serum therapy which will be of great value. [H. U. N.]

3.—Sinclair, in his address on Obstetrics, took as his subject the clinical aspects of carcinoma in women. He gave a comprehensive, though concise, review of the older pathology and enlarged upon the more recent pathological papers. He regards cancer of the uterus not as a growth but as a disease, and believes that our hopes of immediate amelioration rest altogether upon surgical intervention. He calls attention to the mortality records of the older and more modern operators. He says that it is possible to place too great reliance upon mere microscopical diagnosis.

[W. A. N. D.]

LANCET.

August 2, 1902.

1. The Presidential Address on Manchester's Early Influence on the Advancement of Medicine and Medical Education. WALTER WHITEHEAD.
2. Address in Medicine: The Study of the Natural History of Disease the Basis of all Advance in its Treatment. THOMAS BARLOW.
3. Five Clinical Lectures on the Causation and Prevention of Phthisis. Lecture V. BYROM BRAMWELL.
4. The Simulation of Acute Peritonitis by Pleuropneumonic Diseases. H. L. BARNARD.
5. A Case of Recovery from Membranous Gastritis. OTTO GRUENBAUM.
6. Purpura Fulminans following Scarlet Fever. HUBERT E. J. BISS.
7. Some Additional Remarks on the Etiology and Diagnosis of Acute Dilatation of the Stomach. H. CAMPBELL THOMSON.
8. Notes on the Therapeutic Use of the Salso Maggiore Waters. G. SANDISON BROCK.
9. The Treatment of Convergent Squint in Hospital Practice. G. T. BROOKSBANK JAMES.

10. Chronic Sphenoidal Suppuration; Some Observations on Operation and Cicatrization. DAVID McKEOWN.

2.—See abstract of *British Medical Journal*, this issue.

3.—Bramwell concludes his lectures on the causation and prevention of phthisis. He deals at some length with the compulsory notification of phthisis. He argues that if the public once thoroughly realized the enormous benefits which they would derive from reducing the prevalence of phthisis to the lowest possible attainable limit; if they once became convinced that without the compulsory notification of the disease it was impossible to attain this end; that the compulsory notification of phthisis was essential in order to attain this end; and that it was possible to introduce a system of compulsory notification which would work effectively and smoothly in practice; in short, if the public were once convinced that the advantages to be gained by compulsory notification of the disease were greater than the disadvantages, hardships, etc., which it would entail, then, instead of being alienated by the proposal, they would willingly submit to the proposal and would agree, and in fact demand, that it should be put in operation. The medical profession, who are able to appreciate the subject in all its bearings and whose willing and active co-operation is essential for the success of any scheme of compulsory notification for phthisis, must be first convinced on these points; and it is with the object of trying to convince the profession, and through them the public, that the advantages of a compulsory system of notification specially adapted to phthisis are far greater than are the disadvantages, that these lectures have been written and are now published. [F. J. K.]

4.—Barnard presents a paper on the simulation of acute peritonitis by pleuropneumonic diseases. He gives brief reports of 6 cases in which the resemblance to some form of acute peritonitis was markedly presented by one of the forms of pleurisy or pneumonia, or both. In many of these cases the patient did not complain of the chest condition, but referred the pain to the upper abdomen and presented a rigid and tender abdominal wall. The pulmonary symptoms usually were marked enough for recognition after 24 hours. The most interesting and difficult case referred to was that of a girl with gastric ulcer, who was suddenly seized with severe abdominal pain with collapse. A perforated gastric ulcer was diagnosed and a laparotomy was performed. Nothing was found and the patient subsequently died from pneumonia. The autopsy revealed the gastric ulcer, but there was no tendency to perforation. Barnard believes that mistakes in diagnosis frequently occur in the hands of surgeons in the early stages of diaphragmatic pleurisies. If surgeons bore this fact in mind and more frequently examined the chest, mistakes would be less frequent. One of the most important differentiating symptoms is rapid respiration which is out of proportion to the pulse-rate. The abdominal tenderness is found to be superficial, deep pressure with the flat of the hand often being possible. Another point of value is that the abdominal wall becomes soft for a moment at each respiration which is not true in acute peritonitis. The temperature is usually much higher than in peritonitis. Irritation in continuity in the lower 6 dorsal nerves would explain the hyperesthesia and spasm of the abdominal wall. [J. H. G.]

5.—Grünbaum reports a case of membranous gastritis with recovery, which occurred in a girl, 3 years of age. Pieces of membrane were vomited on a number of occasions. Her temperature was subnormal and on several occasions the pulse-rate was high. A blood examination revealed the following: Erythrocytes, 4,480,000 per cmm.; leukocytes, 8,700 per cmm. and the differential count showed polymorphonuclear cells, 43.1%; lymphocytes, 48.5%, mononuclear cells (large), 7.9% and eosinophile cells, 0.5%. The membrane which was vomited varied in thickness in different parts, its greatest thickness did not exceed one

millimeter; its color was pinkish-gray streaked with red. Its surface, when examined in water, had a rugose aspect. Microscopically it was found to consist of fibrinous meshes containing leukocytes and red bloodcells and a number of micrococci, the most of which were arranged in pairs. The shapes of a few resembled the diplococci of pneumonia. Bacilli were not found in the membrane. [F. J. K.]

6.—Biss reports a case of **purpura fulminans following scarlet fever**, which occurred in a boy, 3½ years of age. The patient was admitted into the Grove Fever Hospital on May 16, 1902, certified to be suffering from diphtheria. On this supposition injections of diphtheria antitoxin were given, later, however, it was found that the patient was suffering from scarlet fever complicated with a tonsillar exudate which contained streptococci. All of the symptoms abated on the morning of the 21st. On the evening of that day the patient became very feverish. The temperature rose to 102.4°F. On the following day urticarial rash appeared on the trunk. The patient later developed otitis media and diarrhea. General desquamation occurred. A macular purplish-red eruption developed about the knees, ankles and elbows on the 25th. The patient improved rapidly until June 4, notwithstanding that the temperature fluctuated between 101° and 99° F. On that day a petechial eruption developed upon the trunk, and on the next morning the extremities were also affected. Bleeding from the gums also occurred. Shortly before death the patient vomited a half a pint of blood on 2 occasions. A post mortem examination gave the following results: Subcutaneous hemorrhages were abundantly present and the visceral pericardium and pleuræ also showed a few punctiform hemorrhages. The pleural cavities each contained a few drams of blood-stained fluid and the trachea and bronchi contained a pinkish, frothy mucus. Medium-sized submucous hemorrhages were found in the stomach and intestines. The kidneys were slightly enlarged; their parenchyma was composed almost entirely of fat. A few of the calices contained blood clots. Thickness and ulceration of the throat were also observed.

[F. J. K.]

7.—Thomson contributes some additional remarks on the **etiology and diagnosis of acute dilatation of the stomach**. He points out that recently he made an autopsy at which he found that acute dilatation of the stomach was accompanied by distension of 8 feet of small intestine; the distension passing directly into collapsed bowel at that point, and he contends that a primary paralytic condition of the bowel would seem to give an adequate explanation of this case as it does in so many others. He remarks that the nervous connection between the vagi and abdominal plexuses is very complex, and it seems reasonable to suppose that the paralysis which involves the stomach may in different cases also involve distances along the intestine. Paralysis of the gut is frequently consequent upon inflammation of the peritoneum and in many cases distension of the intestine is usually the predominating feature of the cases both during life and after death. He also directs attention to the fact that peritonitis is the condition which clinically most closely resembles acute dilatation of the stomach and for which many primary cases of the latter have been mistaken, and, therefore, in all cases, after an abdominal operation in which symptoms of acute dilatation are present, or under other conditions in which peritonitis would be likely to arise, it is necessary to decide whether the dilatation is a primary condition or whether it is secondary to general peritonitis. He refers to a case in which great difficulty arose in making the diagnosis and, in this instance, acute dilatation of the stomach was secondary to peritonitis, as shown by autopsy, and therefore merely a symptom of a much graver condition. [F. J. K.]

8.—Brock discusses the **therapeutic uses of the Salso Maggiore Waters**, and sums up briefly as follows: They are indicated in: (1) Tuberculous disease in bones, joints, glands

or skin. (2) Gynecological ailments, more especially those of an inflammatory nature. (3) Rheumatism and gout, especially the arthritis associated with them. (4) Inflammation in general, in the chronic stage; catarrhal affections of eyes, ears, nose, mouth and throat; and bronchitis. (5) Various results of injuries, wounds, etc. (6) Tertiary syphilis and postgonorrheal affections. (7) Neurasthenia, neuralgia and neuritis. (8) Anemia and retarded convalescence from acute illness. [F. J. K.]

9.—James writes on the **treatment of convergent squint in hospital practice**. He contends that the most important reason why the treatment of convergent squint is so unsatisfactory is that no stereoscope of suitable construction and small cost is at the command of the ordinary hospital patient for home use. The author presents a description, which is accompanied by an illustration of the stereoscope. He writes that this instrument is constructed of the cheapest materials and can be used in cases of convergence of higher degree. It consists of 2 mirrors, 8 centimeters square, united by a hinge. To the lower border of each mirror is attached a brass bar, 15 centimeters long, with a clamp obliquely placed at its extremity. The bar is freely movable but can be fixed at any angle to the mirror by a toothed stay which gives additional firmness. The angle at which it is usually placed is 115°. When not in use, the hook is undone and the instrument can be folded into a convenient shape. The stereoscopic figures employed vary much in size according to the visual acuity and youth of the patient. Duplicate colored scrap figures on glass slides are very useful, parts of each figure having been carefully cut out. It is of great service to use letters on each glass slide alongside or across the figures and leave gaps between them. On fusion in the mirrors they are seen as short words such as "Tom," "Bob," etc., and act as valuable controlling tests in children who can read. Almost any object the ingenuity of the experimenter may devise can be adapted to the instrument. The ordinary photographic views in the shops can be employed. They are first cut in half and transposed, right half in left clamp and *vice versa*; controlling dots are useful, of course, with these. The oblique position of the clamps presents the objects nearly square in the mirror to the observer and facilitates their fusion. [F. J. K.]

10.—McKeown reports 3 cases in which he has removed the floor of the sphenoidal sinuses and all bony obstruction to the free drainage of pus in cases of chronic sphenoidal suppuration. Notwithstanding thorough drainage, one can never be sure that during the process of cicatrization drainage may not become interfered with. In each of the cases reported, however, the amount of discharge was greatly reduced in quantity. [J. H. G.]

MEDICAL RECORD.

August 16, 1902.

1. Pelvic Deformity in New York. JAMES CLIFTON EDGAR.
2. Some Chronic Pathological Processes Seated in the Deep Urethral Region, Involving the Male Sexual Function and Nervous System. J. M. THOMPSON.
3. The Mysteries of Life and Mind. JOHN P. HUBER.
4. Hypertrophic Rhinitis and its Sequelæ. F. M. HAYES.
5. The Mosquito on Board of Vessels at Quarantined Ports as a Factor in the Transmission of Yellow Fever. EDMOND SOUCHON.

1.—Edgar presents a paper on **pelvic deformity in New York**. His conclusions are as follows: (1) Of the 1,200 consecutive cases measured, 499, or 41.58 per cent., were American-born women; 215, or 17.91 per cent., Irish; 130, or 10.83 per cent., Russian; 105, or 8.75 per cent., German; 30, or 2.50 per cent., black, etc. (2) Contracted pelves occurred in 44 cases, once in 27 cases, or in 3.66 per cent. Generally contracted pelves occurred in 30 cases, once in 40, or 2.50 per cent. Flattened pelves occurred in 14 cases, once in 85.71 cases, or 1.16 per cent. (3) Twenty, or 45.45

per cent., of our cases of pelvic contraction were among American-born women and deformity occurred once in 24.95 of these cases, or in 4 per cent. (4) Three, or 6.81 per cent., of the contracted pelvis were among black women, and deformity occurred once in 10 of these cases, or in 10 per cent. (5) His material gives a frequency of contracted pelvis (1,200 cases, 3.66 per cent.) midway between the conclusions of Williams (Baltimore, 1,000 cases, 13.1 per cent.); Crossen (St. Louis, 800 cases, 7 per cent.); Reynolds (Boston, 2,127 cases, 1.13 per cent.) and Flint (New York, 10,223 cases, 1.42 per cent.). (6) His statistics, 3.66 per cent. of contractions in 1,200 cases, differ from those of England (F. Barnes of London, 38,065 cases, 0.5 per cent.); of France, 5 to 21.11 per cent.; Germany, 9 to 9 per cent.; Switzerland, 8 to 16 per cent.; Austria-Hungary, 2.44 to 7.8 per cent.; Russia, 1.2 to 5.1 per cent.; Italy, 18.13 per cent.; Holland, 3.51 per cent. (7) Special or irregular forms of pelvic contraction as osteomalacia, obliquely contracted coxalgic, double coxalgic, spondylolisthetic and kyphotic, fractured pelvis, are infrequent in this country. (8) The generally contracted pelvis is the most frequent deformity met with in New York. He found twice as many generally contracted as flattened pelvis in his material (30.14). Williams found practically the same condition in Baltimore (79.45). (9) Records kept of private and consultation cases in New York over a period of 10 years show a somewhat higher percentage than the results obtained from the 1,200 hospital cases, namely about 5 per cent. for all deformities; the generally contracted pelvis being twice as frequent as the flattened. [T. L. S.]

2.—Thompson discusses some chronic pathological processes seated in the deep urethral region involving the male sexual function and nervous system. Three illustrative cases are cited. (1) Presenting chronic vesicoprostatic urethritis with impaired sexual function and derangement of the nervous system; (2) chronic vesicoprostatic urethritis with marked sexual and nervous derangement; (3) seminal vesiculitis with deranged sexual functions and neurasthenia. Whether the pathological process is limited to the vesicle or involves the prostate, the plan of treatment is practically the same, except that in cases of simple vesiculitis massage alone will suffice oftentimes to meet all indications. It is good surgery, however, to irrigate the urethra 2 or 3 times at least even in the mildest cases. [T. L. C.]

5.—Souchon presents some remarks on the mosquito on board of vessels at quarantined ports as a factor in the transmission of yellow fever. He does not believe that we can modify without risk the quarantine regulations preventing vessels from having communication with the shore in quarantined ports until those ports have permanently and reliably eradicated yellow fever by destroying the mosquitoes and all other possible causes of infection. [T. L. C.]

MEDICAL NEWS.

August 16, 1902.

1. Chronic Joint Disease in Children.

HENRY LING TAYLOR.

2. A Study of Gastrorrhagia, with Special Consideration of Hemorrhage Due to Ulcerative Processes and Their Treatment; Report of Cases. HENRY M. JOY.

3. A Case of Isolated Neuritis Complicating Typhoid Fever. CHARLES J. ALDRICH.

4. Pathology of Empyema of the Antrum of Highmore. HEBER NELSON HOOPLE.

5. The Misuse of Glasses. F. C. HOTZ.

6. The Etiology of Typhoid Fever.

WILLIAM EGBERT ROBERTSON.

1.—Taylor mentions the symptoms of vertebral disease, which vary with the region affected. In cervical disease the pains are in the neck, shoulders and back of the head. The neck is often turned or twisted to one side, while the chin drops and there is resistance to motion. In dorsal disease the characteristic pains are at the sides or front of the chest and in the abdomen. Breathing may be short, jerky and shallow, leading to suspicion of the lungs. The gait is shuffling or gliding, often sliding with the knees bent and the toes turned in. In lumbar disease the pain

may be in the loins, lower back, lower abdomen, through the hips or down the thighs; they may be referred to the knee, leg, ankle or foot. [T. M. T.]

2.—Joy says that profuse hemoptysis may arise from the following condition: (1) Rupture of an aortic aneurysm into a bronchus or the trachea; rapidly fatal; (2) in pulmonary tuberculosis; (a) in the early stage of the disease the initial hemorrhage; (b) in the course of progressive tuberculosis; (c) from rupture of an aneurysmal branch of the pulmonary artery into a cavity (commonly fatal). He also mentions the following plan to be adopted in the discovery of ulcer in the stomach: (1) Simple excision of the diseased mucous membrane and suture of the cut edges; (2) resection of a portion of the gastric wall, if the ulcer be deep, involving the muscular wall, or where there are several ulcers within a limited area; (3) the performance of a gastro-enterostomy; (4) in cases of multiple erosion the author advises the submucous ligation by the purse-string ligature for the following reasons: (1) It inevitably stops the hemorrhage; (2) there is practically no additional destruction of mucous membrane, as would be the case if the mucous membrane were excised; (3) there is little or no formation of scar tissue to contract and give rise to subsequent disturbances. [T. M. T.]

4.—Hoople, in his article on the pathology of empyema of the antrum of Highmore, interprets the sequence of events as follows: (1) Dental caries spreading to the floor of the antrum, causing a purulent infection of the cavity; (2) chronic empyema, overflowing, as usual, into the middle meatus and causing a local atrophic rhinitis; (3) formation of a large carious opening in the floor of the antrum, and the gradual drainage of the cavity through the palatal fang of the carious molar. During this process of drainage new bone was gradually deposited around the opening forming the little tube; (4) discharge ceased, the tube healed over and the tooth was roughly filled with creosote wadding and amalgam tightly packed in. [T. M. T.]

6.—Robertson concludes his article by saying that that all-important factor is the bacillus, which for some unknown reason manifests a peculiar tendency to appear among us at regular intervals; that anything which affords an opportunity for its entrance into an individual predisposed to an attack of the fever; and that every case may serve as a source of infection to others, but, unlike the other exanthemata, only by the use of contaminated food or drink, or water used for various household needs. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

August 16, 1902.

1. My Summer in Wood's Hole. BEAMAN DOUGLASS.

2. Tenotomy and Myotomy, with Reports of Eight Illustrative Cases. PRESCOTT Le BRETON.

3. Active Movements in the Chronic Stage of Paralysis. E. H. ARNOLD.

4. On the Remittent Limp in the First Apparent Stage of Hip Joint Disease, with Remarks on the Early Diagnosis of this Disease. NEWTON M. SHAFFER.

5. Diagnosis in Abdominal Lesions.

THOMAS H. MANLEY.

6. Consideration of the Aortic Aneurysm.

JAMES DUDLEY MORGAN.

1.—Douglass described Wood's Hole and the embryological work done there. [M. O.]

2.—After reviewing the history, literature and technique of subcutaneous and open tenotomy and myotomy, Le Breton reports in full 8 cases in which the operation was successful. It may be of value in the treatment of cerebral and spinal paralysis, Friedreich's ataxia, multiple neuritis, pseudohypertrophic muscular paralysis, club-foot, torticollis, syphilitic paraplegia, myelitis, tubercular osteitis, etc. [M. O.]

3.—Arnold describes an apparatus devised for causing

active movements in the chronic stage of paralysis, with photographs. [M. O.]

4.—Vide *Philadelphia Medical Journal*, June 28, 1902, page 1151.

5.—In an exhaustive article upon the diagnosis of abdominal lesions, Manley reviews the important symptoms of the different abdominal conditions found. The dangers are due to shock, hemorrhage, laceration or rupture of hollow organs and infectious or gangrenous changes. Deliberate and repeated physical examination, narcosis, blood examination, Röntgen rays, etc., are often of great value. The different lesions are also described, acute intestinal obstruction, hernia, intraperitoneal perforation, peritonitis, cancer, syphilis, traumatism and gunshot wounds. Exploratory laparotomy is indicated in pathological conditions and in traumatism, when other means of diagnosis fail. [M. O.]

6.—Aortic aneurysm occurs most often on the ascending aorta, next on the arch of the aorta, innominate and subclavian arteries, descending aorta and, last, on the abdominal aorta. The ascending aorta and arch are affected twice as frequently as the descending aorta and 3 times as frequently as the abdominal aorta. Women are rarely affected and the condition is never observed in old age. Physical signs may be altogether absent. Therefore the condition is often not recognized. A review of the symptoms follows. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

August 14, 1902. (Vol. CXLVII, No. 7.)

1. The Diagnosis of Hip Disease; An Analysis of 95 Cases. ROBERT W. LOVETT.
2. A Consideration of Uremia. WILLIAM H. ROBEY, JR.
3. Demonstration of a Model of the Thoracic and Abdominal Viscera Prepared from a Human Subject, Hardened in Formalin. JOHN WARREN.
4. A Case of Possible Morphine Poisoning; A Difficult Diagnosis. F. A. HARRIS.

1.—Lovett says that it is obvious that the signs ordinarily taken to be diagnostic of tubercular hip disease are not characteristic of it, but are also present in cases which rapidly recover and in other forms of chronic joint inflammation than tuberculosis. It is therefore necessary that some diagnostic criterion must be sought, more accurate than the presence of one or all of the signs. Of all the signs given "thickening of the trochanter" proved to be the most reliable. He also states that the X-ray is of great value in early diagnosis. [T. M. T.]

2.—Robey's statistics show that, out of 143 persons dying of chronic nephritis, 53 died in convulsions, 33 in coma without convulsions, 57 died of exhaustion without convulsion or coma; 60 per cent. were males. The urinary examination gave no clue to the degree of renal insufficiency, nor pointed to the reasons why one case should terminate so differently from another. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 16, 1902.

1. How May the Topics in Examination for License be Best Arranged by Examining Boards? HENRY BEATES.
2. Deflected Presentation in Labor. GUSTAV KOLISCHER.
3. Massage and Exercise in the Management of the Puerperium. C. S. BACON.
4. A Contribution to Ureteral Surgery, with 4 Cases, Including a New Operation for Double Ureterovaginal Fistula. X. O. WERDER.
5. Stricture of the Ureter. HOWARD A. KELLY.
6. The Modern Dentist from a Medical Standpoint. WILLIAM KNIGHT.

7. Sodium Glycocholate in Diseases of the Liver.

T. W. KEOWN.

8. The Present State of our Knowledge Concerning So-Called Partial or Graduated Tenotomies and the Heterophorias. J. ELLIOTT COLBURN.

1.—Beates discusses the question How may the topics in examination for license be best arranged by examining Boards? In a brief summary he writes that, if arranged for the best, topics will be included by each examining board that will indirectly compel every medical college to teach them. The scope of the examination will determine that included in the course of study leading to the degree, while the character or type of the examination must fix that of the teaching. This will accomplish one matter of vital import, viz: Teaching and examining in the applied phases of the fundamentals. Thus, establishment of the much-needed curriculum will be indirectly brought about by a proper state examination and those commercial interests briefly outlined, which a decade of experience has taught examining boards to recognize as detrimentally potent in retarding the establishment of an effective type of examination, presenting themselves under the guise of political, institutional, financial and personal interests, will have been effectually neutralized, and, in the near future, totally eradicated. The establishment of a curriculum alike for every college granting the degree; a state examination the same in type and extent for every license will impart to medical education that distinctively essential individuality its importance merits; the same standard for matriculation examination; in a word, uniform standard in both general and medical requirement for uniform license right will result from the best arrangement of the topics for examination for license by examining boards. [F. J. K.]

2.—See *Philadelphia Medical Journal*, June 21, 1902, p. 1108.

3.—See *Philadelphia Medical Journal*, June 21, 1902, p. 1108.

4.—See *Philadelphia Medical Journal*, June 21, 1902, p. 1108.

5.—See *Philadelphia Medical Journal*, June 21, 1902, p. 1108.

6.—Knight, in discussing the modern dentist from a medical standpoint, claims that the dental surgeon of today must have a knowledge of the principles of medicine, and by virtue of his professional attainments he becomes a member of that great brotherhood, the medical profession, whose mission it is to relieve human sufferings. [F. J. K.]

7.—Keown draws the following conclusions in regard to the use of sodium glycocholate in diseases of the liver: The indiscriminate use of glycocholate of soda is to be avoided; it is not suited to all cases, and, although there are no contra-indications for its use, yet good results are only to be expected in those cases of gall-stone formation of so-called torpid liver as found in certain diseases, such as alcoholism, drug habits, melancholia and its congeners, constipation, chronic malaria, etc.; it also materially aids the digestion of fats and may prove a useful adjunct in wasting diseases of all kinds. [F. J. K.]

AMERICAN MEDICINE.

August 16, 1902.

1. The Influence of the Röntgen Ray upon the Different Varieties of Sarcoma. WILLIAM B. COLEY.
2. Remarks on Arthrodesis of the Ankle for Infantile Paralysis. JOHN DANE.
3. Recurrent Vomiting. CHARLES W. LARNED.
4. Filtration of Stomach Contents: Changes in Chyme Due to Delay in Examination. A. L. BENEDICT.
5. Post Mortem Observations on the Appendix. GEORGE BOODY.
6. Remarks on the Hematology of Rheumatism. A. M. DAVIS.

7. The Physician's Obligation to Secrecy.

WILLIAM C. TAIT.

8. The Seventh Conference of the International Red Cross Society. NICHOLAS SENN.

1.—Coley presents the following conclusions as to the therapeutic value of the Röntgen ray in sarcoma: (1) That the results in the cases thus far treated prove that the Röntgen ray has a remarkable inhibitory action upon the growth of all forms of malignant disease and that this is especially true of sarcoma. (2) That the action in many cases of even far advanced and inoperable malignant disease may result in the total disappearance of the tumors, often without any breaking down of the tissues, the new-growth being apparently absorbed. (3) Whether the patients have been cured, or the disease has been merely arrested, to reappear at some future date, is a question that time alone can decide. (4) Recent observations and experiments upon the various forms of carcinoma and sarcoma prove that an agent supposed to be of value only in a limited class of superficial epitheliomata promises to be of as great or even greater value in practically every variety of cancer. (5) While at present there is no evidence to show that deep-seated tumors in the abdomen and pelvis can be cured or benefited by the Röntgen ray, there is still more reason to hope that with improved apparatus or with greater knowledge and skill in using the apparatus that we now have, even these cases may be benefited. (6) The Röntgen ray has a very marked influence upon the pain of nearly all types of malignant tumors, causing entire relief in many cases. [T. L. C.]

2.—Dane discusses arthrodesis of the ankle for infantile paralysis. His paper is a plea for early operation.

[T. L. C.]

3.—Larned reports two cases of recurrent vomiting in children. He presents a summary of the literature of this condition which he believes is more common than is generally supposed. The general management of such cases is outlined. [T. L. C.]

5.—Boody has studied the dimensions and positions of the appendix in 522 necropsies. The material was derived from the Hospital for the Insane at Independence, Iowa. The conclusions to be drawn from his observations are as follows: (1) These statistics perhaps vary somewhat from those of healthy people. A parallel series of cases might show very few of the more common malpositions of the appendix herein described, and none of those far removed from the normal. Even parallel series from among these sick, and with mental and nervous complications, might show far fewer abnormalities. (2) In view of the fact that in this series the appendix was found far removed from its normal situation a number of times, that it was found in nearly every region of the abdominal cavity, the diagnostician would do well to bear in mind that a diseased appendix might be found far removed from the right iliac region. [T. L. C.]

6.—Davis states that in rheumatism the fibrin of the blood is greatly increased; this is said to be explained by an increase of tissue metamorphosis. Coagulation, on the other hand, is slower than normal. The poison of acute rheumatism is a powerful and rapid destroyer of red blood-cells. Leukocytosis is the rule. The hemoglobin is markedly lower. The alkalinity of the blood is almost constantly diminished in acute rheumatism and this is probably due to the presence of lactic acid either alone or in combination.

[T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

April 24, 1902.

1. Concerning the Genesis of Tuberculosis of the Lungs. H. RIBBERT.
2. Myasthenia and Ophthalmoplegia. (Conclusion.) W. R. GOWERS.
3. A Remarkable Case of Pernicious Anemia. (Conclusion.) HAMEL.

4. Some Remarks Concerning the Treatment of Gastric Ulcer. CURT PARISER.

1.—Ribbert refers to a recent paper of his own, which appeared in an obscure publication, in which he drew attention to the fact that in miliary tuberculosis the nodules have the most marked development in the apices of the lungs; while, from above downward in the lungs, they decrease in size and number; also the nodules are not of the same degree of development in both lungs. The most important point is that hematogenous tuberculosis affects the apices of the lungs particularly. The author also insists that miliary tuberculosis does not arise through a single outbreak of tubercle bacilli into the circulation; but that they lodge in the circulation in small numbers and mix themselves with the circulation from time to time, sometimes producing miliary nodules rapidly and sometimes slowly. We need only consider, therefore, that there may be but slight predisposition to the disease, in order to reach the conclusion that hematogenous tuberculosis may cause apical phthisis. The anatomical conditions, therefore, do not demonstrate that tuberculosis of the apices is an inspiration infection. There is no satisfactory explanation of the especial involvement of the apices. It is probable that these portions of the lungs do not have so good a circulation: hence, the bactericidal action of the blood and tissues is not so marked. It is also partly due to the effect of gravity and partly to the early calcification of the cartilage of the first rib. The typical picture of miliary tuberculosis can only be produced by localization of the bacilli in very definite parts of the lungs, and Ribbert states that one can very readily convince himself that the center of the nodules is not the lumen of a vessel—in other words, that there is no doubt that the bacilli pass the vessel walls and then produce disease in the surrounding tissues. The first parts affected are the finer bronchi or the part of the alveoli emptying into the infundibula; that is to say, in the same place where the disease would begin if the bacilli were inhaled. There is, therefore, no anatomical difference between inspiration, infection and hematogenous infection. The localization of tubercle bacilli after they enter the body is, first of all, in the lymphglands; but the lymphglands near the point of entrance must be infected first of all. The involvement of the intestinal and the mesenteric lymphglands is comparatively uncommon; therefore the author believes that Koch is right in thinking that intestinal infection is uncommon. A localized involvement of the lymphglands indicates an infection nearby. This is most commonly seen in the bronchial glands. The bacilli, therefore, probably lodge in the body first through inspiration; then produce tuberculosis of the bronchial and tracheal glands; and subsequently, by hematogenous infection, involve the lungs. It is not, however, uncommon for tuberculosis of the lungs, of the ordinary form, to arise through hematogenous infection from elsewhere. [D. L. E.]

2.—Gowers insists upon the importance of inactivity of the zygomatic muscles in the diagnosis; and upon the importance of the peculiar smile, which at once suggests the diagnosis. This curious smile he also considers of importance in the pathology of the disease. These muscles are always markedly involved in this facial type of muscular dystrophy and the author thinks that the weakness of the face muscles in myasthenia has a closer relation to the muscular atrophy in facial dystrophy than to any other form of paralysis of central origin that has been described. He thinks that it is very difficult for one who has watched one of these cases for years to believe that the cause is a toxin. He also insists that the myasthenic reaction is of great importance in understanding the condition. This could be explained by alterations in the nerve-endings or in the musclefibers. He believes that it indicates that we should refer the condition to disease of the musclefibers themselves. The occurrence of ophthalmoplegia strongly suggests a combination of an affection of the muscles and one of the peripheral motor neurons, but the justification for this is extremely slight. If the disease is considered to be of the nervous system, where can the lesion be placed? There are no alterations in the nervefibers and it is difficult to understand the absence of degeneration, if the central nervous system is the seat of the trouble. [D. L. E.]

3.—Hamel directs attention to the extreme alterations of the blood in his case, the specific gravity in particular being exceptionally low. Megaloblasts were present in enor-

mous numbers and karyolytic forms were extremely common; and there were striking karyomitotic figures. There were numerous normoblasts but very few microblasts. The normoblasts increased in number as the disease grew worse. In the latter part of the condition there were 42 normoblasts and 61 megaloblasts to every 100,000 erythrocytes. The megaloblasts were usually of the gigantoblast type. In both the megaloblasts and the normoblasts there was a very marked nuclear ground-substance. The white cells were decreased in number; the lymphocytes were relatively increased, the small lymphocytes varying between 43 and 51 per cent. The myelocytes averaged about 2 per cent. There was an extremely rich and intensely staining neutrophile granulation of the polymorphonuclear cells. There were very striking changes in the large lymphocytes. There were numerous large oval cells, with an intensely stained, narrow protoplasm and a very weakly stained and washed-out looking, large, oval, concentric nucleus. There were often vacuoles in the nucleus and hemoglobin in the protoplasm. These were evidently degenerating white cells. The author also noted that the myelocytes showed exactly the type as the large lymphocytes in size and configuration of the nucleus and that they might justly be called large neutrophile lymphocytes. It was often difficult to tell whether many of the cells met with were megaloblasts or large lymphocytes, even the staining difference being very uncertain. He does not decide from this that megaloblasts may be transformed into large lymphocytes, or vice versa. As to the etiology of the case, the patient was alcoholic, had been in very unfavorable hygienic surroundings, had an acidity of the stomach and a large, hard liver and spleen and gave some evidence of nephritis. He probably also had had syphilis; but the author does not think that any of these conditions was sufficiently marked to be considered the cause, and he believes that the case was one of those in which the etiology could not be discovered. [D. L. E.]

4.—Pariser insists that the tender point in the back is of the utmost importance in the diagnosis of gastric ulcer, and that it is a very common sign. He makes the persistence of this tender point a matter of consequence in the continuation of strict treatment. As to diet, he never gives milk alone, but adds some form of ground cereal to it, thus making the casein coagulum much finer and much less irritating. He also gives egg-albumen and eggs. He insists that bouillon is not a good thing to give, as it has little nutritive value and is irritating, because of the salts and extractives that it contains. He strongly recommends nutrose, but does not believe that most artificial meat-preparations are valuable, and he does not admit meat to the diet for a long time. He mentions a case in which he gave rectal alimentation exclusively for 6 weeks and almost exclusively for nearly 4 months. The most important part of rectal alimentation is undoubtedly the water-absorption. The author thinks that the actual nutritive value of rectal enemata is far less than is commonly thought. Water-absorption from the lower bowel may be much aided by adding small amounts of alcohol. As to the possibility of an antiperistalsis, traveling from the rectum to the stomach, he mentions the case of a girl with gastric ulcer who was given rectal enemata containing Sherry wine. About two hours after taking these, she regularly had eructations with an undoubted taste of Sherry and also with decided burning in the stomach, which Pariser attributed to the alcohol. He stopped the use of the wine and these symptoms disappeared. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

April 22, 1902. (No. 16.)

1. The Intravenous Injection of Corrosive Sublimate: Reflections and Experiments. A. SERAFINI.
2. Can the Action of Iodine in Arteriosclerosis Find any Pharmacological Basis. JODLBAUER.
3. A Peculiar Case of Incarceration of the Uterus in a Pessary. G. WIENER.
4. Drumstick Fingers With Atrophy of the End Phalanges. W. STOELTZING.
5. Pancreatic Disease and Diabetes. TESCHEMACHER.
6. The Diagnostic Significance of Angiomata of the Skin. ROSENBAUM.
7. A Retrograde Radial Pulse. A. MEYER.

8. The Significance of Quinine for the Treatment of Wounds. H. MARX.
9. A Hitherto Undescribed Localization of Lead-Poisoning. G. KOESTER.
10. A New Lung Disease. Review of the Remarks of Dr. E. Aron. PLACZEK.
11. The Seventieth Birthday of Ernst von Leyden.

H. KOHN.

1.—Serafini discusses the value of intravenous injections of corrosive sublimate in cases of severe general infection. He determined the maximum nonfatal dose for rabbits, infected them with anthrax and with chicken cholera and then injected 5 mg. for 1800 gm. of rabbit, a proportion of 1 to 360,000. One series of animals was injected 24 hours after infection and there appeared to be no curative effect whatever. A second series was injected 8.5 hours after infection, but there appeared to be no influence upon the course of the disease. A third series was injected 16 hours after infection, and again there was no result. Serafini therefore believes that the apparent clinical results must be regarded as purely accidental. The results with chicken cholera were practically the same as those with anthrax, that is to say, the sublimate apparently did not influence the fatal termination. [J. S.]

2.—Jodlbauer believes that the efficiency of iodine preparations in arteriosclerosis depends upon their ability to reduce the bloodpressure. [J. S.]

3.—Wiener reports the case of a woman, 73 years of age, who had, unknown to herself, carried a pessary for a number of years. This was removed and a fresh pessary inserted, which 8 days afterwards caused pain and difficulty in defecation. This was due to an incarceration of the cervix of the uterus through the pessary. The swelling produced by this incarceration caused absolute retention of urine. Subsequently the incarcerated parts became gangrenous, but the patient finally recovered. The case is an illustration of the danger of the circular pessary. [J. S.]

4.—Stöltzing reports a case of chronic pulmonary disease following influenza with the characteristic deformity of the ends of the fingers. Röntgen-ray illustrations showed atrophy of the terminal phalanges. The pulmonary condition was a chronic purulent catarrh, probably associated with bronchiectasis. [J. S.]

5.—A man, 46 years of age, received a severe injury to the spinal column at the age of 38. At the age of 45 he had pain in the cardiac region, after a severe attack of which he had inflammation of the stomach and intestines. On another occasion, after an attack, a tumor was discovered in the gastric region, apparently attached to the liver. He became emaciated and there was fluctuation in the abdomen. The tumor transmitted the pulsation of the aorta and was separated from the liver by a narrow tympanitic zone. A puncture showed a yellowish red fluid. Two days later he had signs of peritonitis and ascites. As the cyst disappeared after inflation of the stomach and as epithelial cells were found on the liquid from the puncture, a diagnosis of pancreatic cyst was made. Operation was therefore performed, the cyst evacuated, and the patient made an uninterrupted recovery. A month later he developed polyuria without sugar. The fluid of the cyst had a distinct capacity for changing into sugar and to emulsify fats. Eight years after the operation, that is at the age of 54, he developed slight symptoms of diabetes; there was sugar in the urine, an unusual degree of thirst and fatigue after exertion. Seven years later, that is 15 years after the operation, he had pronounced diabetes with a fairly large proportion of sugar in the urine. [J. S.]

6.—Rosenbaum has made a series of investigations upon the presence of angiomata of the skin in order to determine their significance as a sign of carcinoma. He finds that after the age of 60 they are invariably present, and that after the age of 20 they are present usually in more than half of the individuals examined. In fact, after the age of 30, they are present in about 90% of all cases. The number varies from one to 127 for each individual. Altogether 400 persons were studied. Of these patients 3 undoubtedly had carcinoma, and 4 probably had carcinoma. Of the 3 certain cases one had 9 angiomata, none upon the abdomen, one had 16 angiomata, with 4 upon the abdomen, and one had 25 angiomata, with 3 upon the abdomen.

The other doubtful cases had from 10 to 42 angiomas, from 2 to 14 of these being upon the skin of the abdomen. A number of patients certainly not affected with carcinoma had a much larger number of angiomas on the skin. No difference, in fact, could be observed between the carcinomatous cases and the others and Rosenbaum therefore denies that the presence of angiomas is a significant or valuable symptom. [J. S.]

7.—Meyer calls attention to the fact that, if 3 fingers are laid over the radial artery and pressure made with the middle finger, the pulse can be felt with the other two. The pulse felt with the outer fingers is evidently from a retrograde wave passing through the palmar arch. This phenomenon has not been detected in other arteries. [J. S.]

8.—Marx has studied the bactericidal action of quinine. For this purpose he used the chloride dissolved in alcohol and water. He found that a 1 to 2% solution hindered the growth of the pyocyanus, the staphylococcus aureus, the bacillus anthracis and the bacillus mesentericus after the cultures had been grown under normal conditions for 24 hours. The nonsporeforming varieties were killed in from 30 to 60 minutes by a 1 to 1.5% solution. The sporeforming varieties were killed in 24 hours by a 1.5% solution at a temperature of 37°. Quinine is therefore more active than carbolic acid and formaldehyde, and less active than corrosive sublimate. It is interesting to note that it produces a very typical agglutination phenomenon. It also produces agglutination of the red bloodcells and in this manner acts as a styptic. In operation a 1% solution should be warmed to 37° and applied to the bleeding surface. There are no disagreeable results, and even if the wound is infected, quinine will act as an efficient antiseptic. The moist quinine tampon is quite as efficient as the clay acetic acid mixture for the purpose of getting rid of disagreeable odors from gangrenous wounds. [J. S.]

9.—Köster believes that in the case he has reported (see abstract in No. 15) that the symmetry of the lesions and the absence of sensory disturbance indicate the spinal situation of the process, although he cannot prove that there was a primary neuritic disease of the motor fibers. He concludes with a slight description of the function of the interossei muscles, particularly as it is elucidated in the various forms of paralysis that affect these muscles. The interesting feature of the case is that, after colics and pains in the joints instead of typical extensor paralyses in the forearms, there was a symmetrical paralysis of the lower extremities not of the peroneal type, but a quite atypical involvement of the interossei and the abductores of both toes. [J. S.]

10.—Placzek replies to Aron that a quotation from Landis' text-book on physiology shows that Danysz actually did measure the pressure of the pleura. [J. S.]

11.—Ernst von Leyden was born in 1832 in Danzig. In 1849 he became a student in the Friedrich Wilhelm Institute in Berlin; in 1854 he passed his examinations and commenced his duties in the garrison. In 1860 he became Traube's assistant, and 5 years later became ordinary professor in Königsberg. In 1872 he became professor at the University of Strassburg and in 1876 was intrusted with the conduct of the Second Medical Clinic in Berlin, as successor to his teacher, Traube. In 1885 he succeeded Frerichs as conductor of the First Medical Clinic. In 1895 he was raised to the nobility. His earliest work was done during what was perhaps the most active period of German medicine, that is in the time of Johannes Müller, Helmholtz, DuBois Reymond, Rokitansky, Virchow, Schönlein, Wunderlich, Griesinger, Skoda, Frerichs and Traube. He first studied renal disease and general conditions, such as diabetes, icterus, thrombosis, etc. In 1883, his first article upon neuropathology appeared, and this was followed by a series of articles upon this subject and upon the symptomatology of nervous lesions. In 1874 he published the *Klinik der Rückenmarkskrankheiten*. He has also written a number of articles upon various forms of pulmonary disease. He was the discoverer of the subphrenic abscess, was deeply interested in fever, has prepared a number of articles upon various forms of disease of the heartmuscle and a series of important articles upon the genito-urinary and gastro-intestinal tracts. However, in spite of his active scientific interest he has always devoted himself primarily to helping his patients. His belief is, that it is our duty not to treat diseases but to treat sick human beings. Of

late years his interest has been attracted by the subject of carcinoma and particularly its etiology. In fact, within the last few weeks he has demonstrated, in a secret session of the committee for the investigation of cancer, a cause, concerning which no published statements have yet been made. Among his chief services to medicine was the foundation of the *Zeitschrift für klinische Medizin*, and the organization of several societies for internal medicine.

[J. S.]

April 29, 1902. (No. 17.)

1. Hay Fever. A. THOST.
2. Recurrent Herpes of the Urethra. BETTMANN.
3. The Relation of the White Bloodcells in Certain Surgical Diseases, Especially Appendicitis. W. WASSERMANN.
4. Further Observations Upon the Extrusion of Hemoglobin From the Bloodcorpuscles Hardened in Corrosive Sublimate. M. MATTHES.
5. The Significance of Small Alterations in the Atmospheric Pressure in the Human Organism. O. ROSENBAACH.
6. The Application of Dermiols in Epileptics. J. HOPPE.
7. Is Pulmonary Emphysema the Result of Wind Instruments? H. FISCHER.
8. Varicella With Abnormal Development of the Exanthems. R. v. HOESSLIN.
9. Rare Cases of Lead-Poisoning—Treatment of the Colic with Atropine. A. WEBER.
10. Some Remarks Upon the Application of Unguentum Argenti Colloidalis. (Credé). E. TOFF.
11. The Medical Treatment in the Family with Reference to the German Law Concerning Insurance Against Disease. O. SCHWARTZ.
12. Moriz Kaposi. FINGER.
13. Adolf Jarisch. KOEBNER.

1.—Thost, in a discussion of hay fever, states his belief that the attacks are due to the blooming of certain forms of vegetation. In proof of this he mentions the fact that hay fever will occur in all predisposed persons on the same date in any given locality. As a result, in different parts of any country the attacks will come on at different days. It is not so certain that the direct cause is the poison of the plants, because examination of the nasal mucus failed to show the presence of pollen, and flowers which contain very little pollen, such as full-blown roses, often cause disagreeable symptoms similar to those of hay fever. It seems more likely that the cause is the odor of plants, or rather the ethereal oils to which the odor appears to be attached. In fact the alcoholic extracts of some of these oils are capable of producing the symptoms of hay fever. Nearly all persons predisposed have some local disease of the nose, particularly a tendency to swelling of the mucous membranes. The general predisposing causes appear to be severe physical work, severe intellectual work or exhaustion as a result of disease. In regard to the etiological relation of gout, in 400 cases Thost found only 30 who suffered from the disease and only 53 who stated that the disease was common in their family. This is very different from the statistics given by English physicians.

[J. S.]

2.—Bettmann reports the case of a man, 26 years of age, who had luetic infection. A year later he had slight burning during urination and some discharge. A careful examination showed that the symptoms were due to herpes of the urethra. A second attack occurred which was complicated by typical herpes preputialis. The only interesting feature of this case is that the disease may be mistaken for more serious conditions and usually causes the patient great anxiety. [J. S.]

3.—Wassermann contributes an article upon leukocytosis in surgical conditions, especially in appendicitis. He reports the results of daily counts in 10 cases which may be briefly analyzed. The first, with symptoms and leukocytosis; an exploratory puncture showed pus in the ileocecal region; the leukocytes were high: 30,000, just before the operation and after the operation they gradually decreased, reaching normal 13 days later. In the second case the symptoms of profuse peritonitis were characteristic and the

patient died a few hours after the operation. The leukocytes were increased and showed an even higher count after the operation, but the diagnosis could have been established without them. The third patient, a girl of 16, had an infection with several micro-organisms, and among others the pyocyaneus. The clinical symptoms were very mild. The leukocytes, however, were high and indicated operative interference, and considerable pus was found in the cavity extending into the pelvic cavity. The fourth case: Leukocytes were counted daily for a month and a half, but were never very high. No operation was performed and the patient recovered. It is to be noted that on 2 occasions increase in the symptoms was associated with slight increase in the number of leukocytes. The fifth patient showed high leukocytosis, with mild symptoms. A large abscess was evacuated and the patient gradually recovered. The sixth patient showed very moderate leukocytosis, with symptoms of peritonitis. An operation was performed, but the patient died 2 days later. The seventh case showed normal leukocytosis throughout. The symptoms were severe, but subsided rapidly under internal treatment. The eighth case showed very high leukocytosis, which rapidly diminished after the operation. The operation showed a profuse peritonitis. The patient recovered. The ninth patient had moderate leukocytosis. At the operation an abscess was found that had been walled off by dense connective tissue. The patient rapidly recovered. The tenth patient had high leukocytosis, there was considerable pus in the peritoneum without any connective tissue limitation. The patient died shortly after the operation. [J. S.]

4.—Matthes continues his work upon the separation of hemoglobin from the red blood corpuscles fixed in corrosive sublimate. He found that the cells of frog's blood hardened in sublimate are much more resistant than cells of other animals. When exposed to digestive ferments, particularly those obtained from the pancreas, the cells appeared to be spongy, lost their contours, the nucleus disappeared and they changed into shadows. After the application of diluted acids the hemoglobin was separated, but if the corpuscles were placed in hemoglobin solution they soon became very deeply colored, as if they reabsorbed it. Fresh red blood cells do not appear to be attacked by the digestive juices. [J. S.]

5.—Rosenbach calls attention to the powerful influence exerted by changes in atmospheric pressure upon the skin. If a stream of air is directed against the skin, waves may be seen to pass over it similar to those which occur in a cornfield. This possibly may be of some value in explaining the occurrence of colds. [J. S.]

6.—Hoppe reports 6 cases in which dermiol was given for status epilepticus. It was usually followed immediately by sleep lasting several hours, and subsequently entire cessation of the fits. No disagreeable secondary effects were observed. [J. S.]

7.—Fischer has made careful examination of 500 musicians in order to determine whether emphysema was common among the older ones or not. He found that the signs were not present in a single case. He calls attention to the fact that a practised musician really exercises a very moderate force in order to play a wind instrument. He therefore is of the opinion that the old doctrine, that the playing of wind instruments is a common cause of emphysema, is not true. It does appear to be a fact that musicians are more predisposed to chronic bronchial catarrh than other classes, but this may be explained by the fact that they are often compelled to play in hot, dry, dusty rooms for long periods of time. [J. S.]

8.—von Hoesslin reports the case of a boy, 5 years of age, suffering from smallpox, in whom there was coalescence of several vessels with superficial gangrene in the center. These necrotic areas gradually extended and then dried up, and the necrotic area was discharged in the form of a scab, leaving a small depression. The course of the case was very mild. It is possible that the atypical eruptions were due to a secondary infection. [J. S.]

9.—The patient, a girl of 19 years, had been paralyzed in both arms for several months. The paralyzed muscles were those supplied by the radial nerve and, suspicion of lead poisoning having been raised, the characteristic line on the gums was sought and found. Several neighbors suffered from the same condition, and investigation showed that they all used a spring situated at some distance, the

water being conducted to their houses through lead pipes. The epidemic rapidly disappeared after the use of this water was discontinued. A second epidemic occurred in various families in the town of Altenburg and the only common cause was the flour. A visit to the mill from which the flour was furnished showed that the upper millstone had numerous holes blocked with lead in order to maintain its equilibrium and some of these plugs had been worn away and particles mixed with the flour. The treatment of this condition with opium not proving satisfactory, an attempt was made with the extract of belladonna, giving a dose of $\frac{1}{4}$ of a grain of the solid extract every 4 to 6 hours. Later, this not enabling him to control the disease, Weber employed hypodermic injections of atropine. He found that $\frac{1}{44}$ grain injected hypodermically usually gave relief, although sometimes it was necessary to use a dose twice as large as this. In all, the clinical histories of 4 patients are given, in whom the atropine treatment proved of greatest service. [J. S.]

10.—Toff reports 5 cases of septic disease that he treated with hypodermic injections of unguentum argenti colloidalis. The results in all cases were exceedingly satisfactory. [J. S.]

11.—Schwartz insists that, in the interests of the societies that insure against invalidism, it is necessary that poor people should be able to have medical advice at the very first symptom of disease. The public hospitals and insane asylums should be increased in number in order to meet the necessities of the population. [J. S.]

12.—Moritz Kaposi was born on the 23rd. of October, 1837. He died on the 6th. of March, 1902. He received his degree in 1861, was an assistant to Hebra until 1867. He was made extraordinary professor in 1875 and full professor in 1879, upon the death of Hebra. His chief service to dermatology was his careful clinical study of the cases. His general works were some text-books on syphilis and the "Hand-Atlas der Hautkrankheiten." His chief defect was, that he was purely a clinician, paid little attention to bacteriology or histology, and was never ready to change views once stated. [J. S.]

13.—Adolf Jarisch was born on the 15th. of February, 1850. He received his degree in 1873 and became Hebra's assistant in 1876; in 1888 he was made professor of dermatology in Innsbruck and in 1892 was called to Gratz, becoming ordinary professor in 1901. His publications were not numerous, but of great importance. There can be little doubt that, had he lived, he would have been made ordinary professor of dermatology in Vienna. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

May 5, 1902. (39 Jahrgang, No. 18.)

1. Medicinal Treatment of Tuberculosis. ERICO DE RENZI.
2. The Treatment of Sciatica. L. BRIEGER.
3. The Antroscope in the Investigation of the Antrum of Highmore. MAX REICHERT.
4. The Question of Hemiplegia. MAX ROTHMANN.
5. Disease of the Rectum Following Gonorrheal and Syphilitic Infection. KOENIG.

1.—de Renzi advocates fresh air, good food and rest for tuberculosis. When fever is absent and patients live on cereals, as in Southern Italy, he advises exercise. Among drugs of value are ichthyol, ichthoform and sodium salicylate. Ichthyol causes diminution in bronchial secretion, increase in body weight and improvement in the general condition. It is vasoconstrictor in action. Ichthoform resembles it. Sodium salicylate is especially valuable in treating the fever in tuberculosis. [M. O.]

2.—Brieger reports the case-histories of 8 patients with sciatica treated physically, by hot and cold baths, douches, massage, light-baths, movements, etc., with recovery. The method of treatment varied in every case, but recovery followed, although no previous treatment had caused any improvement. [M. O.]

3.—Reichert has constructed an antroscope, illustrating its use in diagrams. He employed it in 3 cases of suppuration of the antrum of Highmore. It may also be used in suppuration of the ethmoidal cells. He does not consider it of

use in its present form in operation, yet hopes soon to perfect it so that it may facilitate operation. [M. O.]

4.—Rothmann states that **hemiplegia** and its results are due, not only to an affection of the pyramidal tract, but to interruption of other cerebrospinal tracts. By removal of the cortical centers for the extremities, or total destruction of the posterior portion of the internal capsule, hemiplegia follows the complete annihilation of transmission for a motor impulse from the cortex. The unaffected fibers through the corpora quadrigemina and optic thalamus cannot at once conduct motor impulses, only being able to transmit impulses for maintaining the tendon reflexes. When partial restitution of active motion returns after some weeks, the pyramidal tract or the cortical centers have not been replaced, but the fibers through the corpora quadrigemina and optic thalamus have developed a motor function. Contrary to what occurs in monkeys, certain groups of muscles recover, while their antagonists develop contractures, because of the peculiar innervation of the extremities, due to the upright posture assumed by man. Since the return of motion is accompanied by the exercises of new fibers, exercise of the paralyzed members and of the paralyzed muscle groups is indicated therapeutically soon after hemiplegia. In some cases this treatment may be supplemented by tendon transplantation. [M. O.]

5.—Diseases of the rectum are especially frequent in women, following gonorrheal or syphilitic infection, usually seen late, after pain, tenesmus and a purulent discharge have appeared. Women, especially prostitutes, are much more often affected than men. Two sorts of affection are noted, one in which only the end of the rectum about the sphincter is affected; the other showing ulceration and stenotic changes of the mucous membrane extending further up the intestine, so that the finger can hardly enter. By vaginal examination the rectum is felt as a hard cord. Ulcers and cicatrices are palpable about the edge of the sphincter ani. Pararectal abscess, fissures, etc., have been observed. Coitus per rectum may be the undoubted cause of the condition. Though gonococci are not found, the condition seems probably gonorrheal in the majority of cases. The condition is always serious and very refractory to treat. Mixed treatment is useless. When simple stricture exists, it can be dilated by the passage of sounds. They are, however, contra-indicated when there is either discharge or ulceration. In those cases affecting the sphincter only, circular resection of the affected part of the rectum may be done. In more extensive cases, the condition may be incurable and an artificial anus may become a necessity. [M. O.]

May 12, 1902. (39 Jahrgang, No. 19.)

1. The Gynecology of the Present. A. MARTIN.
2. The Abortive Treatment of Gonorrhea. A. BLASCHKO.
3. Tuberculin in the Treatment of Tuberculosis.
C. S. ENGEL.
4. Experiments in Extirpating the Hypophysis Cerebri and Transplanting Cancer and Thyroid Gland in its Place. F. F. FRIEDMANN.
5. Diabetes Insipidus and Paralysis of the Bladder.
C. POSNER.
6. The Important Postsyphilitic and Parasyphilitic Diagnostic Symptoms. JULIUS HELLER.

1.—Martin gives a full review of obstetrics and gynecology up to the present. As vaginal operations become more general, abdominal operations become more restricted. He believes that many of the problems of gynecology are as yet unsolved and hopes that the physicians of the future will solve these perplexing questions. [M. O.]

2.—For 9 years Blaschko has used an abortive treatment for gonorrhea. It is useless when the illness has existed over 3 days or the discharge is thick and purulent, accompanied with pain on urination. It is, however, useful in cases seen a day or 2 after coitus, with but slight pain

and but little serous or seropurulent discharge, in which are many epithelial cells and a few extra cellular gonococci. He employs injections of 4% protargol, or 1-2% albargin solution, left in until urination. During the succeeding days this is repeated, in $\frac{1}{2}$ or $\frac{1}{4}$ strength, the solution being left in 3 minutes. The first injection causes no pain, but the next day there is pain with much secretion. Recovery follows quickly in about 40% of cases, though recurrence of discharge and gonococci may appear after 8 days. [M. O.]

3.—Engel reviews the employment of Koch's tuberculin and tuberculin-R. Out of 14 cases of bronchitis, he found tubercle bacilli in the sputum of but 7, though all responded to the tuberculin test. He gave 2 or 3 injections weekly, of tuberculin-R first, and tuberculin later, in solutions gradually increasing in strength up to 50%. No dangerous symptoms developed. In 3 cases the treatment was stopped in 3 weeks, as the patients grew worse. But in those who had not shown tubercle bacilli in the sputum the treatment was a success, 6 recovering. The other 4 patients, with tubercle bacilli in their sputum, were unaffected by the treatment. He believes that tuberculin-R increases the bactericidal immune serum. He therefore recommends it for those patients with tubercular family-history who do not yet give symptoms of tuberculosis. [M. O.]

4.—Of a series of total extirpation of the hypophysis cerebri in cats, the animals, when killed in excellent health, even as late as 9 months after operation, showed absence of the hypophysis, complete ossification of the bone defect at the base of the skull, a normal thyroid gland and bony skeleton. Cancer tissue and thyroid gland, when transplanted into the place of the hypophysis removed, showed but little change when the animals were killed in good condition some months later, each tissue retaining its own characteristics. [M. O.]

5.—Posner reports the case of a man of 48, who first noted frequent urination and thirst 6 years before. A large tumor, consisting of a much distended bladder, was found on examination, containing 2,500 cc. of urine. Urethra and prostate were normal and there were few signs of cystitis. There were no symptoms pointing to disease of the central nervous system. But the urine had a specific gravity of 1002, with a trace of albumin and pus. Posner believes that both the polyuria and the paralysis of the bladder were of nervous origin and that the disease present was diabetes insipidus, probably from disturbance of the central nervous system. [M. O.]

6.—Symptoms of syphilis remaining after treatment are termed postsyphilitic; those probably due to the syphilitic process are called parasyphilitic. Primary and secondary syphilis do not, as a rule, leave scars; but tertiary syphilis does give a characteristic postsyphilitic symptom, cicatrices from gummata of the skin, typical upon the legs. In children skin scars are a parasyphilitic symptom. Leukoderma is parasyphilitic; pigmented syphilides postsyphilitic. The nails often show post- and parasyphilitic changes. Alopecia is postsyphilitic. Enlarged lymph-glands may also be postsyphilitic. Thus, too, the testicle may show induration following syphilis. Rectal ulceration may be syphilitic, but cannot be called postsyphilitic. While bony changes are frequently specific, they can rarely be called postsyphilitic. The mouth may show parasyphilitic leukoplakia, Hutchinson teeth and atrophy of the tongue; postsyphilitic cicatrices and antelexion of the epiglottis. Scars on the nose or perforation of the septum may be postsyphilitic symptoms. Deafness may rarely be parasyphilitic; iritis is postsyphilitic; keratitis is parasyphilitic in most cases. Paralysis of the eye muscles is frequently postsyphilitic. These are some of the more important post- and parasyphilitic symptoms and may aid in diagnosis. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

April 24, 1902. (XV. Jahrgang, No. 17.)

1. Arsenic Dermatoses. RILLE.
2. The Treatment of Venereal Ulceration with Cold.
A. BRANDWEINER.
3. Experimental Investigations with Urinary Antiseptics.
OTTO SACHS.
4. The Effect of Electricity Upon Animals. S. JELLINEK.

1.—Rille states that **skin eruptions following the use of arsenic** are rare. They may be herpes zoster, keratosis or melanosis. That they do occur has been noted by Rille, who has seen and described a few such cases. Beside their rarity, diagnosis is by no means easy in these cases.

[M. O.]

2.—Brandweiner describes the **treatment of soft chancre and venereal ulceration with cold**. He uses ethyl chloride and freezes the part for from 3 to 5 minutes. This causes an intense reactive hyperemia, and in 33 out of 40 patients the ulcer rapidly healed. In 4 cases buboes became purulent during the treatment, suppuration occurring in one bubo after recovery. In 4 cases recurrence appeared in from 3 to 14 days after treatment. He prefers iodoform gauze in the after-treatment. This is especially applicable to dispensary patients. [M. O.]

3.—After reporting a number of experiments with urotropine, salicylic acid, oil of sandalwood, methylene blue, salol, balsam of copaiba, oil of turpentine and camphoric acid, in which he added pure cultures of typhoid bacilli, staphylococci, etc., to the urine passed after taking these antiseptics internally, Sachs concludes that **urotropine gives the best bactericidal results**. Urotropine, given in doses of 60 grains or more daily, killed the bacteria in or added to the urine. Next in effect came salicylic acid. Oil of sandalwood, methylene blue, salol, balsam of copaiba, camphoric acid and sometimes oil of turpentine, in large doses, seemed to stop the development of bacteria in the urine. Potassium chloride, boric acid and uva ursi had no effect.

[M. O.]

4.—The human being is not a resistance in the sense understood by Ohm. Yet a weak electrical current is often of great value therapeutically. Jellinek has measured this resistance by 3 different methods. Direct anatomical changes in the tissues following a strong current appear to diminish the resistance. The longer the current is active, the lower sinks the resistance. This may be of value in the study of **accidents following electricity**. In experiments on animals and the cadaver, electrical energy becomes heat. Electrolysis occurs on the surface of the body and in the neighboring serous cavities only. The nerves of taste are stimulated by the current, so that a peculiar taste results, which, however, disappears as soon as the current is turned off. Pain is only noted in the joints, being due to the greater resistance of the fluid in the joint. The case-histories of a number of patients follow, including **2 cases of lightning stroke**. One patient did not lose consciousness, in spite of severe burns. Experiments show that electricity cannot kill frogs, while mice are killed with a weak current. Guinea-pigs come next to mice in susceptibility. When death occurs slowly, respiration ceases first. When the animal is under chloroform, death does not occur. Intravenous injections of morphine or cocaine cause death more quickly than without them, when the current is turned on. The burns caused by a strong current resemble bullet wounds. A number of microscopical specimens are given, illustrating the effects of electricity on the spinal cords of animals. Degeneration was found in the entire gray matter, in the posterior tracts and in the posterior horns of gray matter; the spinal canal seems dilated in all cases; hemorrhages were also found. Jellinek's preparations are the first reported histological results of electrical energy. [M. O.]

May 1, 1902. (XV. Jahrgang, No. 18.)

1. The Pathology of Assimilation. ERNST FREUND.
2. The Effect of Spices on the Secretory and Motor Activity of the Stomach. L. R. von KORCZYNSKI.
3. The Treatment of Trachoma with Cuprocitrol and Itrol.
F. R. von ARLT.

1.—Will be abstracted when concluded.

2.—After describing a series of experiments, von Korczynski concludes that the **ingestion of spices** has different effects upon gastric secretion. This effect depends upon the condition of the stomach and upon the individual. When gastric secretion is feeble, they diminish hydrochloric acid and pepsin, causing the formation of lactic acid upon mixed diet. They are also bad in cases in which little hydrochloric acid is secreted. Spices irritate the gastric mucous membrane, cause dilatation of the blood-vessels and an increased outflow of fluid which dilutes the gastric juice. Upon the gastric glands of healthy individuals spices at first increase and later decrease secretion. The latter effect may last some time; and sometimes it is followed by another period of increased secretion. The motor activity of the stomach is increased by spices, since they stimulate the contractile elements of the stomach.

[M. O.]

3.—Depending upon the condition of the conjunctiva, von Arlt uses a 5% or 10% solution of **cuprocitrol** in the treatment of trachoma, applied as often as 5 times a day. When cuprocitrol is not well borne, he uses itrol. The details of the preparation, use and effects of these drugs are fully described. Recovery followed in 88.5% of his cases. [M. O.]

BOLNITCHNAIA GAZETA BOTKINA.

March 13, 1902. (Vol. XIII, No. 11.)

1. Hospital Economics in Connection with the Modern Position of City Hospitals. A. I. LATOUKHINE.
2. Infant Asylums in the Villages of the Government of Voronege in the Summer of 1901.
V. P. OUSPENSKI.
3. Cardiac Asthma and Allied Morbid Affections.
L. B. POPOFF.
3. Will be abstracted when concluded.

March 20, 1902. (Vol. XIII, No. 12.)

1. Four Cases of Congenital Cerebral Hernia.
V. P. JOUKOVSKI.
2. Cardiac Asthma and Allied Morbid Affections.
L. B. POPOFF.
3. Infant Asylums in the Villages of the Government of Voronege in the Summer of 1901.
V. P. OUSPENSKI.
- 1.—Will be abstracted when concluded.
- 2.—Will be abstracted when concluded.

March 27, 1902. (Vol. XIII, No. 13.)

1. A Case of Hematuria Following Contusion of the Bladder. B. N. KHOLTZOFF.
2. Cardiac Asthma and Allied Morbid Affections.
L. B. POPOFF.
3. Hospital Economics in Connection with the Modern Position of City Hospitals. A. I. LATOUKHINE.
- 1.—Kholtzoff reports a case of **vesical hematuria** in a man, 28 years old, previously and at the time in good health. The profuse bleeding developed after the man got drunk. The hemorrhage lasted for a few days. Cystoscopic examination showed a few hemorrhagic spots in an otherwise healthy mucous membrane. The cause was not definitely ascertained, but the author supposes that the bladder sustained a contusion during the profound intoxication. An exploratory laparotomy was made and showed the bladder to be intact. [A. R.]
- 2.—Will be abstracted when concluded.

April 3, 1902. (Vol. XIII, No. 14.)

1. A Case of a Rare Complication of Typhoid Fever with Hemorrhage from a Mesenteric Gland, Simulating Perityphlitis. M. IV. ROSTOVITZEFF.
2. Cardiac Asthma and Allied Morbid Affections.
L. B. POPOFF.
3. Four Cases of Congenital Cerebral Hernia.
V. P. JOUKOVSKI.
4. Infant Asylums in the Villages of the Government of Voronege in the Summer of 1901. V. P. OUSPENSKI.
- 1.—Rostovtzeff reports a case of **typhoid fever complicated with hemorrhage from one of the mesenteric glands**. The patient, a girl, 28 years old, presented some of the

symptoms of typhoid fever, including a typical roseola and a positive Widal reaction. The case, however, was not clear, inasmuch as there were symptoms of influenza and bronchopneumonia. Soon after admission she developed pain in the region of the cecum, followed by swelling and other symptoms which led to a diagnosis of a perforated typhoid ulcer at the base of the appendix. A laparotomy disclosed a normal appendix, some intestinal adhesions and a hematoma in the mesentery. The patient died 2 days after the operation. The autopsy showed that the hemorrhage proceeded from a degenerated mesenteric gland which had undergone the hyperplasia incident to typhoid fever. The author could find the record of only one similar case, observed in the same hospital by Dr. Iarotski, in 1896. [A. R.]

2.—Will be abstracted when concluded.

3.—Will be abstracted when concluded.

April 10, 1902. (Vol. XIII, No. 15-16.)

1. On the Subsequent Effects on the Organism of Extirpation of One Kidney. L. A. SOBOLEFF.
2. Cardiac Asthma and Allied Morbid Conditions. L. B. POPOFF.
3. Four Cases of Congenital Cerebral Hernia. V. P. ZSHUKOVSKI.
4. Village Infant-Asylums in the Government of Voronege During the Summer of 1901. V. P. OUSPENSKI.
5. Hospital Economics in Connection With the Status of Modern City Hospitals. A. I. LATOUKHINE.
6. The Scientific Principles Underlying Hospital Régime and the Acting Civil Hospital Legislation in Russia. S. S. VIRSALADZE.

1.—Will be abstracted when concluded.

2.—Popoff concludes his exhaustive paper on the subject of cardiac asthma and allied conditions with the following résumé: (1) The prevailing opinion on the origin and clinical course of cardiac disease as a result of cardiac debility is insufficient. (2) Cardiac asthma is not a strictly defined and independent disease or symptom complex. The attacks of cardiac asthma arise from various sources and present diverse clinical manifestations. (3) At the present time we can note 2 main groups of asthmatic attacks ascribed to cardiac asthma: (a) Attacks depending on the changes in the heart's action, cardiac asthma proper, and (b) attacks of vascular origin. These 2 groups may be again subdivided into several different forms. (4) Cardiac asthma proper may be of a twofold character: (1) The attacks may be produced by cardiac debility, a form of cardiac asthma which is usually described and known as such, and (2) the attacks may be due to increased cardiac action, a form of asthma met with in cardiac hypertrophy with or without valvular lesions; it is characterized by an active congestion of the lungs and observed in practice, although but little studied. (3) The group of asthmatic attacks attributed to cardiac asthma and caused by vascular changes represents the largest category of cases. Various forms in this group may be observed independently or occur in combination; the latter is more common. Here belong those cases of cardiac asthma which are caused by changes in the aorta, either aneurysm or dilatation, causing pressure and irritation of the nerves supplying the vascular and respiratory systems. The aneurysm may also affect the larger pulmonary bloodvessels. The clinical picture of cardiac asthma of vascular origin may include so-called angina pectoris, tachycardia, etc. Arteriosclerosis also plays an important role. To the above groups of cardiac asthma some authors add attacks of dyspnea due to intoxication (tobacco, coffee, etc.) or auto-intoxication (uremia, diabetes, etc.); also asthma of reflex origin, from the stomach, intestines, liver, kidneys, uterus, etc. These forms of cardiac asthma represent another group which demands special consideration. (4) According to the diverse origin of the attacks of cardiac asthma and the clinical course, the treatment will be different in each case and the selection of the proper mode of treatment should be strictly individualized in accordance with the conditions present. Several illustrative cases are carefully described. [A. R.]

3.—Zshukovski describes in detail 4 of the 5 cases of cerebral hernia observed among 20,000 newborn. In the first case, the infant, a girl, lived for 40 days with an in-

ferior occipital hernia complicated by rhachischisis cervicalis. The infant suffered from convulsions up to the time of death. There was nothing peculiar in the family-history. The second case is one of inferior occipital hernia, fissure of the palate and microcephalus. The child, a girl, lived for 10 hours. The mother, an unmarried woman of 18, was apparently healthy and could give no definite information concerning the chance father. During pregnancy she suffered from hydramnion. The placenta weighed 500 gm. The child was born in the eighth month. The malformation in the third case was a hernia sincipitalis superior and microcephalus. The child, a boy born at term, died of the eighth day. The mother, a widow of 27, was apparently healthy. Nothing was known about the father. The fourth case was one of hernia frontalis in an otherwise well developed infant-girl. There was nothing in the family-history. The paper includes a fairly good bibliography and excellent illustrations. The descriptions of the deformities are exhaustive. [A. R.]

JAHRBUCH FUER KINDERHEILKUNDE.

April, 1902. (Vol 55, No. 4.)

15. The Mortality from Diphtheria in Germany. ERICH MUELLER.
 16. The Alexins in the Milk and Bloodserum of Children. ERNST MORO.
 17. Pneumococcic Joint and Bone Suppuration. GEORG PFISTERER.
 18. Acute Intestinal Obstruction in Childhood. A. WERTHEIMBER.
 19. Influenza in Infancy. MAX FLESCHE.
 20. Some Reflexes in Early Childhood. CESARE CATTANEO.
 21. Some Causes of Severe Functional Intestinal Disturbances in Infants. ALEXANDER JUERGENSOHN.
- 15.—Müller reviews the mortality from diphtheria in Germany from 1899 to 1900, giving statistics. While the mortality varied up to 1895, it then fell two-thirds. Since that time, when the antitoxin treatment became general, there has been a gradual diminution in the mortality, without the former slight variations. His statistics, embracing 10 million people during 12 years, show the good effects of Behring's diphtheria antitoxin. [M. O.]
- 16.—Escherich first demonstrated the presence of bactericidal substances in mother's milk, having noted the absence of bacterial infection in breast-fed infants, as compared with those artificially fed. Examination of human milk and cow's milk shows so many bacteria that it seems impossible for any bactericidal substance to be present. Moro gives his experiments upon breast-fed infants in detail. He concludes that no alexins have been found in human milk; but that the alexins of the serum of breast-fed infants are more efficacious than those of the serum of infants artificially fed. The amount of alexins in the serum of the newborn infant corresponds with those of the bloodserum of the maternal placenta. The quantity of alexins in the serum of the newborn infant is much smaller than that in the serum of breast-fed infants. The conclusion remains, therefore, that the cause of this increased quantity of alexins in the serum of breast-fed infants is the mother's milk. [M. O.]
- 17.—Pfisterer discusses the origin of joint and bone metastases in croupous pneumonia. In 14 out of 22 cases observed, the symptoms of bone or joint suppuration appeared in 8 days. When the symptoms develop later, pneumococci reached the joint during the pneumonia but remained latent. In some cases joint symptoms preceded the pneumonia. The pneumococci reach the joint from the mouth, pharynx or lungs, in the circulation, and are sometimes found by examining the blood. They may also travel in the lymphvessels. Primary pneumococcic peritonitis may be accompanied with arthritis, or the pneumococci may cause enteritis. A slight injury will determine the seat of suppuration. Arthritis and osteitis are less frequent with pneumonia than meningitis and otitis. The large joints, shoulder and knee, are more often affected than the smaller joints. Fifteen out of 41 cases occurred in infants under 2 years of age. The prognosis is, as a rule, good, when the condition is pneumococcic; but, when mixed infection occurs, it is poor. Of 31 cases of arthritis 17 died; of 13 cases of osteitis 6 died. [M. O.]
- 18.—Invagination is commonly noted in the first year of life. In children over 5, ileus occurs from coprostasis, in

ernal strangulation or axial twisting of the intestine. Vertheimer reports a case of internal strangulation from Meckel's diverticulum in a boy of 4, with death. The possibility of a persistent Meckel's diverticulum should not be forgotten as a cause of **intestinal occlusion in childhood**. A case of probable invagination in a boy of 5, with recovery, is also reported. A case of coprostasis in a girl of 10 follows. Atropine was of value in the treatment of acute intestinal obstruction. But this should not be continued when operation becomes necessary. [M. O.]

19.—Flesch reports an attack of **influenza in an infant** of 6 months, breast-fed, with death on the fourth day from purulent pericarditis. This confirms his earlier observations, whence influenza seemed more severe in breast-fed infants than among those artificially fed. It also seems that the infection is most grave when it enters by inhalation. [M. O.]

20.—Treated editorially.

21.—Jürgensohn reports 3 cases of **enteritis in infants**, due to the ingestion of water containing nitric acid and ammonia. Two of these children recovered when the water was changed. When an infection occurs in a child fed upon water of this kind, death invariably follows. Two cases, in which infants were fed upon a milk mixture sterilized in a Soxhlet apparatus, were cured by ceasing to use the apparatus. Analysis of the milk showed bacteria, antimony and sulphur. The food should be minutely examined in these cases to discover the cause of illness. [M. O.]

ARCHIVES OF PEDIATRICS.

April, 1902. (Vol. XIX, No. 4.)

Pyloric Stenosis in Infants, with a Report of Cases.

E. W. SAUNDERS.

The Leukocyte Count in the Diagnosis of Diseases of Children. GEORGE DOUGLAS HEAD.

Enlarged Bronchial Lymphnodes in Children.

ALFRED FRIEDLANDER.

A Note on the Treatment of Gastro-intestinal Hemorrhage in the Newly-Born by Suprarenal Extract.

L. EMMETT HOLT.

1.—Saunders reports 5 cases of **pyloric stenosis in infants**. In the treatment of the condition medicinal and dietetic measures should first be employed. The abnormality calls for some drug that shall overcome the violent contractions of the pylorus to a greater or less extent. Among the drugs to be recommended for this purpose are belladonna, the bromides and chloral. Opiates should not be given, because they impair the motor function of the stomach. The secondary gastric irritation which results from the stagnation of food should be treated by washing out the stomach and by producing rest of that organ by means of rectal feeding. The latter method may be intermittent, but should be continued for at least 24 hours, during which time nothing but water should be given by the mouth. When food is again introduced into the stomach, that organ should be washed out occasionally to remove the possible residuum of undigested food. The diet of the patient should consist of food that forms no coagulum in the stomach; for this reason milk or any food containing undigested casein will not answer. Whey or peptonized milk or a mixture of both, is generally the best food. The efficiency of fat should be supplied by cod-liver oil, or a very small percentage of cream may be used if it does not cause distress or increased vomiting. It is well to aid the motor power of the stomach by gravity, hence, after nursing, the infant should be placed upon its right side. If the diet is perfectly fluid, some nourishment will pass through the pyloric opening. Since it is the object of all treatment to produce hypertrophy of the stomach wall without dilatation of the organ, gaseous distention of the stomach should by all means be prevented. When it is seen that the infant is failing in spite of rational treatment, surgical intervention must be advised. [J. M. S.]

2.—Infants at birth have a high and variable **leukocyte count**, ranging from 14,000 to 27,000 cells. After the fourth day, with the increase in body weight, the leukocyte count shows a moderate decrease to 12,000 or 14,000 which is maintained to some degree throughout the first year of life. After the age of 2 years, the leukocyte count of a healthy children is not different from that of adults. Of

the physiological processes, that of digestion plays a prominent part in the rise and fall of the white bloodcells. In young infants, digestion leukocytosis is very marked, so that, in making leukocyte counts, a time must be selected some hours after a meal. The variability of the leukocyte count in the newborn and in the first year of life is such that in the diagnosis of diseases of this early age it cannot be relied upon except in those infections accompanied by a low count. Between the ages of 1 and 2 years the count may be of considerable value if digestion leukocytosis is excluded. The chief value of the procedure, however, is in assisting in the identification of such diseases as are characterized by a diminution in the number of leukocytes. This group of diseases includes typhoid fever, influenza, measles, malarial fever, miliary tuberculosis and perhaps tuberculous meningitis. After the individual has reached the age of 2 years, Head believes that the leukocyte count in disease is as invariable and as fixed as in diseases of adult life, and that it can be made as helpful in diagnosis in the former class as it is in the latter. He has studied the blood in 22 cases of typhoid fever in children and he has found that the low leukocyte count is constant and fixed and that complications cause a leukocytosis. The value of the procedure is in assisting the establishment of the diagnosis and as a means of determining the presence of complications. From 13 cases of appendicitis he concludes that well-marked leukocytosis is usually present. The leukocyte count is useful as an aid to diagnosis between appendicitis, renal colic, hepatic colic, acute intestinal obstruction and typhoid fever. On the other hand, acute gastritis, acute nephritis, acute enterocolitis could not be differentiated from appendicitis by this method, because they are all accompanied by leukocytosis. There was a pronounced leukocytosis in every one of 12 cases of lobar pneumonia; but the number of cases studied was not sufficient for the formation of conclusions concerning the number of leukocytes in complicated cases or in double pneumonias. A high leukocytosis would exclude typhoid fever, malaria or influenza. In cases of cerebrospinal meningitis or appendicitis the leukocyte count would be of no assistance in excluding lobar pneumonia. In 3 cases of bronchopneumonia well-marked leukocytosis was always present. In 5 cases of meningitis, well-marked leukocytosis was always present, and the development of complications did not modify it. In the diagnosis between meningitis and uncomplicated typhoid fever the count is almost, if not absolutely, diagnostic. It is also probably diagnostic between meningitis and hysteria. In one case of brain abscess leukocytosis was present. In one case of brain tumor leukocytosis was absent, so that the presence of leukocytosis would serve as a differential symptom between meningitis and brain tumor. In uncomplicated influenza, of which 2 cases were studied, there is a normal or reduced number of leukocytes in the blood, and the blood count may, therefore, be used in differentiating influenza from meningitis. In children, as well as in adults, diphtheria is accompanied by a well-marked leukocytosis. In measles, on the other hand, the leukocytes are below normal during the entire course of the disease. In scarlet fever the leukocytosis begins a day or so before the rash appears, reaches its height about the time of the full development of the exanthem, and falls with the fading of the rash. Complications have little effect upon it. In smallpox the leukocytosis appears when the rash becomes vesicular and reaches its height with the formation of pustules. Out of 4 cases of acute articular rheumatism, 3 showed leukocytosis and one did not. In 5 cases of miscellaneous septic infection a well-marked leukocytosis was found in all. It may be said, therefore, that the occurrence of a leukocytosis in a sick child may point to the proper diagnosis of the condition. [J. M. S.]

3.—The lymphnodes in relation with the trachea and large bronchi are arranged in 3 groups; one on either side of the trachea, the tracheal lymphnodes; a second lying in the angle of bifurcation of the trachea and along the main bronchi, the tracheobronchial lymphnodes; and the third in contact with the bronchi to their fourth subdivision, the peribronchial lymphnodes. The deep lymphatics of the neck, both those in front of and behind the carotid sheath are continuous with those about the bifurcation of the trachea and with the subclavicular nodes. Out of 125 au-

topsies made at the New York Foundling Hospital, Northrop found the bronchial lymphnodes tuberculous in every case. In at least 4/5 of all cases of tuberculosis in children the bronchial lymphnodes are affected, and in many cases it is certain that this adenitis is the primary lesion. Friendländer points out that there are 2 diseases of childhood in which there is always great irritation of the bronchial mucosa and, consequently, an inflammation of the bronchial lymphnodes: namely, measles and whooping cough. It is probable that in a great majority of cases influenza in children also produces an adenitis of the bronchial lymphnodes. If we consider that the morbidity of measles is probably greater than that of any other infectious disease and if we add to this the enormous frequency of the occurrence of pertussis and influenza, the statement that almost every child, at some time or other, has had a bronchial adenitis, does not seem exaggerated. In many cases this adenitis recedes with the disappearance of its cause, so that the child is perfectly well again. But if, for any reason, the patient is below normal in development or in nutrition, or if its vitality is deficient, the adenitis may persist and become a source of danger. One of the most frequent portals of entry for the tubercle bacillus into the human body is by inhalation. If a child is suffering from bronchial adenitis with consequent lowered resistance and a hereditary tuberculous diathesis, the result may be foreseen. Enlargement of the cervical lymphnodes is a frequent complication of disease of the nasopharynx, and the infection may pass from these to those situated about the bronchi. Again, the infection may travel upward from the mesenteric lymphnodes. One of the earliest symptoms of enlarged bronchial lymphnodes is a peculiar paroxysmal cough, which resembles that of pertussis except that there is no crowing inspiration. This cough is often very violent and exhausting and the paroxysms may end in vomiting. The attacks may be more frequent at night; dyspnea on slight exertion, without demonstrable cardiac lesion, is frequently present; anemia, listlessness, restlessness, capricious appetite, impaired nutrition, slight afternoon fever and hoarseness are other symptoms of the condition. Physical examination is usually negative. One diagnostic point of importance is found in the relative degree of enlargement of the cervical and supraclavicular lymphnodes. If the latter are larger than the former, it is probable that the peribronchial lymphnodes are also enlarged. In some cases dulness on percussion behind the upper portion of the sternum, extending laterally on either side of the bone, may be made out, and when the lymphnodes are very considerably enlarged dulness may be elicited in the interscapular region. On auscultation, the respiratory murmur in the interscapular region may be found to be greatly exaggerated, or of bronchovesicular character on the left side, associated with prolonged and harsh expiration. Eustace Smith's sign is of importance. This sign is the occurrence of a venous murmur which is heard over the manubrium when the child bends his head back so that his eyes look at the ceiling. As the chin is depressed, the murmur gradually disappears. In advanced stages of enlargement of these lymphnodes, distention of the cervical veins, edema of the face, atelectasis of one lung, with consequent dilation of the right heart, extreme hoarseness, complete aphonia and ulceration of caseous nodes into the surrounding structures have been noted as complications. The essentials of treatment are good food, good air and rest. So far as drugs are concerned, there are 3 of especial value: iodide of iron, cod-liver oil and creosote. The guaiacol ointment, suggested by Rachford, has given excellent results in the hands of the author. [J. M. S.]

4.—See *Philadelphia Medical Journal*, Vol. VII, No. 23, p. 1073.

ARCHIVES DE MEDECINE DES ENFANTS.

April, 1902. (Volume 5, No. 4.)

1. Epistaxis in Newborn Infants. LEON D'ASTROS.
2. The Bacteriological Examination of the Throat in Measles. P. ARMAND-DELILLE.
3. The Complications of Varicella. H. DAUCHEZ.
4. The Medical Treatment of Prolapse of the Rectum. L. BAUMEL.

5. A Second Attack of Lobar Pneumonia in the Same Spot After 6 Years. JULES COMBY.

6. Sudden Death in Apical Pneumonia.

CHARLES LEROUX.

7. A New Case of Infantile Scurvy. JULES COMBY.

1.—**Epistaxis** is rarely observed in infants under 6 months. The amount of the hemorrhage varies, while the diagnosis may not be easy, since the blood may be swallowed and vomited, and pulmonary hemorrhage may sometimes occur through the nose, simulating epistaxis. Epistaxis in the newborn occurs as a rule with grave general toxic or infectious processes, associated with other hemorrhages. D'Astros reports 10 cases of newborn infants with epistaxis. It may be due to hereditary syphilis or to septic infection. When primary, it should attract attention to possible latent syphilis or septic infection of nasal origin, probably to be followed by otitis media, bronchopneumonia, osteomyelitis, septicemia, etc. The prognosis is always serious. The treatment consists in anti-septic applications to the nasal fossæ and rhinopharynx. [M. O.]

2.—In 75 cases of measles reported by Armand-Delille, diphtheria or pseudodiphtheria bacilli were found in 32. Out of 29 of these cases, there were long bacilli in 5, medium bacilli in 11 and short bacilli in 16 throats examined. Inoculations were made in 20 cases, only 4 of them proving virulent in guinea-pigs. He concludes that a nonvirulent bacillus resembling the Klebs-Löffler bacillus is found in 42% of the cases of measles; that, while croup occurs in the cases with virulent bacilli, membranes are not generally found; that pseudodiphtheria bacilli or no bacilli may be present; that only those medium bacilli which clouded bouillon when cultivated were virulent; and, finally, that, since it is impossible to determine whether the bacilli are those of true diphtheria, all children with measles who develop croup should be given antidiphtheritic serum. [M. O.]

3.—Otitis media is a common complication of chicken-pox, as is streptococcic angina. Albuminuria and rarely nephritis have been noted. Albuminuria was found in 2 cases out of 60; also in 93 out of 872. Though rare, still the possibly serious complications of varicella must not be overlooked. [M. O.]

4.—Baumel reviews his cases of prolapse of the rectum, concluding that cough and diarrhea are the usual causes of prolapse of the rectum in children; that surgical intervention is rarely necessary, because the mucous membrane alone prolapses and that medical treatment of the cause is superior to surgery. [M. O.]

5.—Comby reports an interesting case of recurrence of acute lobar pneumonia in a child, 6 years after a former attack affecting the same area. At 3 years he had influenza with pneumonia of the right apex. Later adenoids were removed and double otitis media was treated. At 9 years he had measles, with another attack of pneumonia, also involving the right apex. Both attacks caused high fever for 9 days. He is now quite well. [M. O.]

6.—Leroux reports a case of acute lobar pneumonia of the right apex in a girl of 5, secondary to tonsillitis. On the third day of the disease she suddenly died. The only known cause of death was hyperpyrexia. [M. O.]

7.—Comby reports another case of infantile scurvy in a boy of 9½ months, fed on farina and "lait maternisé." The right hip was greatly swollen, as were the gums, where a few ecchymoses existed. On fresh milk and grape juice he rapidly recovered. Comby believes the prolonged employment of Gaertner's milk to be the great cause of infantile scurvy. [M. O.]

ANNALS OF SURGERY.

May, 1902.

1. Thoracic Injuries Involving the Lungs. W. G. LeBOUTILLIER.
2. Fracture of the Carpal Scaphoid with Dislocation Forward of the Central Fragment. L. A. STIMSON.
3. Treatment of Dislocation of the Clavicle Through Open Wound. J. E. Moore.
4. Subcutaneous Injury of the Brachial Plexus. P. R. BOLTON.
5. Chronic Phagedena Due to Mixed Infection. H. R. LOUX and W. M. L. COPLIN.

6. Hour-Glass Stomach. J. M. ELDER.
7. Rupture of the Axillary Vein in Reducing an Old Dislocation of the Shoulder. F. J. SHEPHERD.
8. Pus Dilatation of One Member of a Double Ureter.
J. C. MUNROE.
9. Intestinal Suture. A. MacLAREN.
10. The Curative Effect of Trephining *per se*.
C. J. ALDRICH.
11. Contribution to the Surgery of Spina Bifida.
VAN BUREN KNOTT.

1.—Boutillier reports a case of rupture of the lung without fracture of the ribs in which pneumothorax developed; aspiration gave no relief and death followed; he also reports a case of gunshot wound of the lung in which he excised a rib for hemothorax; death from infection with the bacillus aerogenes capsulatus followed. He believes operative interference is imperative in distended pneumothorax from whatever cause, if aspiration does not give relief; in large hemothorax in cases of fractured ribs, contusions of the chest and penetrating wounds of the thorax without regard to the nature of the weapon producing the injury; and in extensive and progressive subcutaneous emphysema after thoracic injuries. Exploratory operations may be proper in order to determine whether wounds in the lower part of the thorax have penetrated the diaphragm or peritoneum, or to satisfy one's self as to the integrity of the heart or pericardium as well as of the internal mammary or intercostal arteries, or to provide drainage in wounds in which infection is suspected. [F. T. S.]

2.—Stimson reports 2 cases of fracture of the carpal scaphoid, with displacement of the central fragment forward. The best treatment consists in removal of the displaced fragment. [F. T. S.]

3.—Moore reports a case of dislocation of the acromial end of the clavicle which could not be retained with bandages and which he treated by wiring the outer end of the clavicle to the acromion. The coracoclavicular ligaments had been completely torn across and it was necessary to cut the superior acromioclavicular ligament before reduction could be accomplished; when reduction was supposed to have been effected before operation, the acromioclavicular ligament must have been pushed down in front on the clavicle so that nothing remained to hold the bone in place except the skin and superficial fascia. [F. T. S.]

4.—Bolton gives the histories of 2 cases of total paralysis of the parts supplied by the brachial plexus, the lesion consisting in an inclusion of the cords of the plexus in cicatricial tissue. In both cases the injury was subcutaneous and in both after an exploratory incision further operation was considered useless. [F. T. S.]

5.—Loux and Coplin report a cause of chronic phagedena of the penis which showed some histological evidence of tuberculosis and which on bacteriological examination was found to contain the staphylococcus pyogenes aureus, the colon bacillus and probably the streptobacillus of Ducrey (bacillus of chancroid). It finally became necessary to amputate the penis. [F. T. S.]

6.—Elder publishes a case of hour-glass contraction of the stomach, the result of a gastric ulcer. At operation a band extending from the constriction in the stomach to the right rectus was found. Gastroplasty after the manner of Heintze-Mikulicz' pyloroplasty was performed with a successful result. [F. T. S.]

7.—Shepherd reports a case of dislocation of the humerus into the axilla in which attempts at reduction at the end of 5 weeks resulted in a rupture of the axillary vein and a tearing off of the greater and lesser tuberosities of the bone. Recovery followed ligation of the vein and excision of the head of the bone; the latter procedure was carried out because efforts to reduce the dislocation were unavailing even after the incision had been made; later this was found to be due to the position of the torn off tuberosities which lay in the glenoid cavity. [F. T. S.]

8.—Munroe reports a case of double ureter of the right kidney, one ureter having become infected and distended with pus so that it could be felt externally as a tumor. The diseased ureter was excised. [F. T. S.]

9.—MacLaren reports 5 cases of suture of the intestine, illustrating the different methods of anastomosis.

[F. T. S.]

10.—Aldrich reports 2 cases in patients who were tre-

phined for intracranial disease; one regained complete health, the other was markedly benefited; in neither was a lesion found, nor were the operations made over the areas which the symptoms suggested might be diseased. [F. T. S.]

11.—Knott insists on early operation in cases of spina bifida. Ligation of the sac, galvanopuncture and the employment of the seton are unsurgical. Some favor the injection of Morton's fluid, but excision of the sac is the method of choice. Knott has operated upon 2 meningoceles with a perfect recovery in each case and upon 2 meningomyeloceles with a perfect operative recovery in each case and a marked improvement in the motion of the lower limbs. Children with hydrocephalus should not be subjected to operation. [F. T. S.]

JOURNAL DES PRATICIENS.

April 5, 1902. (16me. Année, No. 14.)

1. The Diagnosis of Pott's Disease in Adults.
ARMAND SIREDEY.
2. Diarrhea and Constipation During the Puerperium.
KEIM.

1.—In adults tuberculosis of the vertebræ runs a chronic course. But small parts of the vertebræ are affected, so that deformity of the spine rarely occurs. A series of tiny abscesses results, with cellulitis of the neighboring tissue and many nervous symptoms, neuralgia from pressure, neuritis, etc. In fact, whenever intractable neuralgia persists, Pott's disease should be suspected. If the localization is cervical, the diagnosis is soon established; but this is exceedingly difficult in dorsal or lumbar tuberculosis. Aneurysm of the aorta, pneumonia, pleurisy, gastro-enteritis, nephritic colic, perinephritic abscess, movable kidney, tuberculous peritonitis, tubo-ovarian disease, hysteria, etc., have all been diagnosed when Pott's disease existed. The neuralgic pain is intense, unaffected by all drugs; it is rarely limited, being metameric in localization. Then motor, sensory and trophic changes are noted. Careful examination of the vertebral column will show some tender point, a tubercular history will be found, and fever, cachexia and the absence of syphilis or cancer will confirm the diagnosis. [M. O.]

2.—During the puerperium changes occur following the compression of pregnancy, from reflex causes, toxemia or infection, shown especially by the urinary and gastro-intestinal tracts. Constipation or diarrhea may be so severe as to simulate puerperal infection. Normally there is diarrhea at the beginning of pregnancy and with labor; but constipation is the rule between. Pathologically diarrhea may occur and become uncontrollable, due to general intoxication, like vomiting in pregnancy. Or constipation may persist, with vomiting, anorexia, pain, etc. Either may become a serious complication of pregnancy. The differential diagnosis from puerperal infection and typhoid fever is difficult. For diarrhea bismuth, opium and antiseptic injections are indicated; for constipation laxatives, purgatives and high rectal injections are of use. In all cases, after labor, the intestinal canal must be kept aseptic. [M. O.]

The Cortical Visual Centers.—In an elaborate pathological study of the cortical centers for vision after enucleation or atrophy of the eyeball, Gallemarts concludes that after enucleation or atrophy of the eye, the partial decussation of the optic nerves is shown by cellular atrophy in both occipital lobes. This is most noticeable in the occipital lobe of the side opposite the one containing the enucleated or atrophied eyeball, and is limited to the calcarine fissure, the lingual lobe and the cuneus. Therefore the visual sphere consists of the calcarine fissure, the lingual lobe and the cuneus only, and does not occupy the descending gyrus, the fusiform lobe or the angular gyrus. In time all the layers of cells in the visual sphere undergo atrophy. Besides, it is clear that the so-called fibers of Gennari or Vicq d'Azyr cannot be considered as an exclusively optic tract. (*Bulletin de l'Académie de Médecine de Belgique*, April, 1902). [M. O.]

Special Article.

SIR FREDERICK TREVES ON APPENDICITIS.

Sir Frederick Treves's Cavendish Lecture on "Some Phases of Inflammation of the Appendix," which appeared in the *British Medical Journal*, June 28, 1902, and which was abstracted in the *Philadelphia Medical Journal*, July 19, 1902, will find many interested readers both in this country and abroad, not only because of the high position Treves holds among English surgeons, but also and particularly because of his recent operation upon King Edward. We think that, on the whole, however, American surgeons will not agree with all Sir Frederick has to say. His remarks on the causation, symptoms and pathology of appendicitis are very interesting and, with few exceptions, are those held by most teachers. He very properly pronounces a warning against making a diagnosis of appendicitis simply because the patient has tenderness in the neighborhood of the appendix. He calls attention, too, to the not infrequent error of mistaking a localized contraction of the abdominal muscles upon palpation for an enlarged appendix. Regarding the treatment of appendicitis Treves, although endeavoring to take an intermediate stand, undoubtedly occupies the position of conservatism which has lately been abandoned by so many American surgeons. He is, however, an ardent advocate of the interval operation and says that he has operated upon more than 1000 patients between attacks, with but 2 deaths. The following are his views expressed regarding the operative treatment of appendicitis:

1. It is a mistake to base the necessity for immediate operation upon the idea that "gangrene or rupture of the appendix," "perforation of the appendix" and "appendicitis with acute peritonitis" mean the same danger and require the same treatment that do "gangrene or rupture of the bowel," "perforation of the stomach" and "acute peritonitis."

2. The greater proportion of cases of appendicitis recover spontaneously; if examples of all grades of appendicitis are included, the mortality of the disease will probably not be above 5 per cent.

3. Operation carried out during an acute attack is attended by a mortality of over 20 per cent.

4. Relapses may occur after operation done in the acute stage.

5. Removal of the appendix between attacks of appendicitis is attended by only a trivial risk.

The cases requiring immediate operation are said to be those presenting ultra-acute symptoms, to which type is frequently applied the term fulminating, and those in which there is a reasonable suspicion that suppuration has taken place. Treves states that the ultra-acute cases are actually rare and that their recognition is not difficult. It is furthermore stated that "the great majority of cases of appendicitis recover spontaneously without either an operation or the formation of an abscess." In those cases in which an abscess has formed and healed, removal of the appendix "may be indefinitely deferred, since by the occurrence of suppuration the patient is—in but a very small percentage of cases—cured of

his trouble." Should a recurrence of symptoms take place in such a case, the appendix should be removed.

Many surgeons will agree with many of these statements, but few American surgeons, we think, will agree with all of them. We do not believe that most cases of appendicitis recover spontaneously. They may recover from the first attack of the disease, but what of their subsequent history? Our experience has been that the majority of these cases have recurrent attacks, in which operation becomes imperative or in which death takes place. Regarding the mortality of the disease, we think that the estimate given of all grades of appendicitis (5 per cent.) is entirely too low. The statement, that the mortality-rate of operations done in the acute stage is 20 per cent., certainly cannot be accepted as representing the results obtained in this country. This might represent the mortality if the operations were done after the appendix had perforated and abscess formation had taken place, but certainly it will not represent the mortality-rate of the many surgeons who believe in operating before perforation has occurred.

Surgeons will probably always disagree regarding minor points in the treatment of appendicitis, but the views expressed by Sir Frederick Treves are certainly not in accord with those held by the large majority of American surgeons.

It may be well enough for a surgeon of Treves's experience to delay operation in certain cases of appendicitis, but to teach this delay, particularly to students and general practitioners, would not, we feel, tend to lessen the mortality of appendicitis, but rather tend to increase it. The complaint of most surgeons is that the medical attendant too often tries to carry the patient through an attack of appendicitis without an operation, with a resulting appendicular abscess and sometimes a general peritonitis. Certainly medical men should be taught that the earlier symptoms of appendicitis call for a surgical consultant, and if then operation is delayed the responsibility falls upon the surgeon.

Infantile Cerebral Paraplegia.—In a recent lecture Marie presented a number of patients with infantile cerebral hemiplegia and paraplegia, giving their case-histories in detail. After reviewing the symptomatology, he states that infantile cerebral paralysis is often the result of an infectious disease, as is infantile spinal paralysis. While this affection is always systematic, infantile spinal paralysis is occasionally so, following an infectious arteritis in the spinal cord. In the former disease the same lesions affect the brain substance. Finally he showed a patient presenting both infantile cerebral and spinal paralysis, proving that the 2 may occur together in one individual. Essential epilepsy may also follow an infectious disease, making the etiology of many of these closely related nervous affections the same. (*Le Bulletin Médical*, July 12, 1902.) [M. O.]

Tetany.—In a lecture at the Hôpital des Enfants Malades, Paris, Richiardièrè recently presented a child with bronchopneumonia, in whom tetany occurred. While rare, it is noted in infants under 3 years of age especially and is generally secondary to pleurisy, pertussis, typhoid, measles, smallpox, malaria and diseases of the gastro-intestinal tract. The contractures most frequently affect the upper extremities, relaxing during natural sleep or that due to an anesthetic. A full review of the subject follows. (*Le Bulletin Médical*, July 5, 1902.) [M. O.]

Original Articles.

YELLOW FEVER.*

By FRANK H. HANCOCK, M. D.,
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I. A REVIEW OF THE CONTENTIONS OF THOSE WHO HAVE RESPECTIVELY ADVANCED THE CLAIMS OF A SPECIFIC AGENT OF THEIR OWN DISCOVERY.

II. THE INSECTICIDAL METHODS OF FUMIGATION, AND THE PASSING OF QUARANTINE.

I.

In 1883 Freire announced the discovery of a specific micrococcus. Animals inoculated with the micrococcus promptly died. Post mortem lesions were directly identical with those that are typical of yellow fever cadavers.

Freire developed a serum the claim of which for potency may be seen in his statistics. Freire claims to have conferred immunity upon several thousand people whom he inoculated in Rio. He, therefore, declared his serum to have antitoxic prophylactic potency.

Carmona, of Mexico, in 1885 published a description of *peronospora lutea*, which he believed to be produced by medicine, etc.

Lacerda, of Rio, in 1883 noticed the presence of micrococci in the liver and kidneys of yellow fever patients. Some of the material was sent to France, and Babes isolated the micrococcus that Lacerda accepted as the specific agent.

In 1887 Finley, of Havana, in an extensive article described the tetragenus *febris flavæ* and claimed that it was specific. He concluded also that "the *Culex* mosquito is the known natural agent which transmits this disease," and, lastly, that "according to the results of our experiments up to the present time it is possible to protect nonacclimated individuals from contracting grave yellow fever by mosquito inoculation."

Gibier, making researches in Havana in 1888, under instruction from the French Government, selected a bacillus which he considered the probable cause of yellow fever. Gibier could not sustain this claim. The bacillus was isolated at times, however, from yellow fever cadavers by other bacteriologists, and was entitled to the distinction, at least, of entity. It was ranked at that time, with other micro-organisms found in yellow fever, as a possible etiological factor.

Geverd claimed the specific agent in a micrococcus of his discovery. He inoculated himself with an attenuated culture of this organism and then proceeded to have an infected mosquito bite him. He had yellow fever mildly. The mild case, in his estimation, was due to the prohibitive influence of the attenuated culture he had introduced beneath the skin. In view of the recently established fact, the mosquito transmission of yellow fever, it is interesting to note what Geverd attempted and accomplished in 1881 and 1882.

In 1889 Sternberg, working in Havana, obtained a bacillus from yellow fever cadavers which he de-

scribed as "resembling the colon bacillus in form," and which he called bacillus X. The very frequent presence of bacillus X in yellow fever cases, its marked potency for animals when inoculated, followed by typical yellow fever symptoms and autopsic lesions, led Sternberg to suspect that his bacillus X was the responsible microbe of those found in yellow fever patients and cadavers.

Sternberg was only able to show the presence of bacilli X in about 50 per cent. of the cases and soon abandoned any idea of the germ's specific nature.

In 1897 Giuseppe Sanarelli, studying in the Island of Flores, opposite the city of Montevideo, isolated a bacillus which he believed to be the responsible agent. He named it bacillus *icteroides*. He found it in the second case he examined, after arriving from Europe. The bacillus occurred as a little rod with rounded ends, usually found in pairs, twice as long as broad. Its form was inconstant and its cultural characteristics depended upon the media used. It was easily stained, had from 4 to 8 cilia and was grouped as a facultative anaerobic organism. He investigated its biological features, introduced it into dogs, pigs and other animals. Acute symptoms of bowel inflammation and death quickly followed these introductions and the post mortem lesions were the same as those of non-experimental yellow fever in man. Eight or nine imbeciles furnished his material for the important work. The most of these reacted in a manner that resembled cases of yellow fever naturally infected. One of these died, the autopsy findings being those of yellow fever.

Sanarelli announced these results and gave his assurance that the bacillus *icteroides* was the specific germ. During their fastigium he explored their livers and kidneys, searching for bacilli *icteroides*.

Following Sternberg's negative monograph in which were detailed the exhaustive researches he had made without encountering a specific organism, the affirmation of Sanarelli, who had used the same media and the same methods, created some surprise. His statement appears, however, to have been quickly accepted. His researches seem to have been very complete, his results quite irrefutable.

The conviction was general that Sanarelli had done what he claimed—had seen and named the germ of yellow fever. The fact that the profession had been mislead, misdirected before, does not seem to have affected its credulity or aroused its suspicion. Strange, is it not, that Sanarelli's desire should have befogged his reason, however intense he may have been to be the first to affirm in a field in which all others had been negative? It would seem that he might have done more than demonstrate that the bacillus *icteroides* was pathogenic in man and animals.

Freire's cryptococcus induced death in animals inoculated and the post mortem showed typical lesions. He wrote of a serum, too, that had therapeutic value.

Carmona had mistaken ordinary micrococci, found

*Read before the Norfolk Medical Society.

in urine, that had undergone alkaline fermentation, for "zoospores."

Gibier imagined a "spirillum that formed a black pigment similar to that found in the stomach and intestines."

Lacerda's blunder led Babes to error, and the Sanarelli bull was accepted by the medical profession.

It is a fact that other investigators, as adroit, as adept, as practised, as ingenious as Sanarelli, preceded him in this work, and, using the same materials, under like conditions, failed to discover, ever, the bacillus icteroides.

Had icteroides been constantly present, is it possible all would have missed it? They could not have otherwise than by design, which, of course, is infeasible. It is clear that Sanarelli encountered cases that this bacillus had invaded, while other investigators were in contention with persons and cadavers in which icteroides had not trespassed. This is as faithfully true of observations made since the discovery of the bacillus as before.

Wasdin, of the Marine-Hospital Service Commission, whose report to the President was made in 1889, found icteroides in 13 of 14 cases.

Dr. Adolpheus Lutz, in a letter to the Academy of Medicine, Turin (January, 1900), details an examination of 60 yellow fever cadavers in which icteroides was not isolated once.

Dr. Agramante (*Medical News*, January 7, 1900) reports the occurrence of icteroides in 7 out of 23 autopsies.

Reed and Carroll, in a preliminary note (*Philadelphia Medical Journal*, October 27, 1900) did not find icteroides, either in the blood, during life of 25 patients in various stages of yellow fever, or in cultures from the blood and organs at 11 autopsies of yellow fever patients. Yellow fever subjects seem to afford fertile fields for bacilli of the colon and hog cholera group, bacilli that have nothing whatever to do with the disease.

B. A. (Archibald & Woodson), a variety of the hog cholera group, was isolated by these observers in 32 out of 39 autopsies, and four times in five cases from the blood taken at the elbow. Sanarelli found icteroides in about 50 per cent. of yellow fever cases—in small numbers with one exception.

Dr. Wasdin, who claimed that the Marine-Hospital Service Commission, of which he was a member, furnished the indubitable proofs of the truth of the Sanarelli contentions, says himself: "All that Sanarelli proved in his memoirs was the presence of an organism not before obtained in yellow fever; that it possessed powers pathogenic to animals by artificial infection; that its toxins had proven toxic to man and animals, the lesions produced resembling those of yellow fever."

It is peculiar that Sanarelli contented himself with that evidence; he should have but adduced the fact that, under circumstances of artificial inoculation, icteroides is pathogenic, giving rise to certain lesions.

The bacillus of Havreberg, the hog cholera ba-

cillus, the bacillus coli communis, do the same thing. Wasdin resumed consideration of the case where Sanarelli left it. He extended the Sanarelli observations and proved what he calls "the specificity" of bacillus icteroides. This he did by testing under natural conditions of infection the potency of the various pathogens. He gave to several animals, in their food, cultures of bacillus icteroides and bacillus X (Sternberg). The majority of those exposed to the icteroides cultures died, while none of those exposed to bacilli X was affected. This but proved that icteroides was the more potent of the pathogens for natural infections, that the others were naturally noninnocuous. There is no hypothesis to be imagined that can reasonably hold to move from these experiments. What does Wasdin mean, then, by proving the natural specificity of bacillus icteroides—specific in the sense that, as the representative of the hog cholera group in man, it sustains its relation by infecting animals when fed to them—and, having proven it, in what way do the results accord with the question of icteroides producing yellow fever?

Theobald Smith (Bull. No. 6, Agricultural Dept., 1894) infected white mice with hog cholera bacillus in the same way that Wasdin infected them with icteroides. They died as promptly and had the same lesions.

Reed and Carroll did the same work with hog cholera bacillus and white mice in Havana and got the same results. What has Wasdin proven? He succeeded in giving additional testimony to the original work of Dr. Reed, who contended that icteroides was but a variety of the hog cholera group. Nothing more can be said of Wasdin's work than that it was corroborative. This discovery in the difference of potency of the bacillus icteroides, however, immediately led Wasdin to err. He announced that "from this animal experiment the Commission proves the natural specificity of the organism of Sanarelli," and that up to this time "the solution of the problem seemed very remote." Convinced that he had substantiated the Italian discovery, he felicitates the country upon the accomplishment of his Commission in the following style: "While it was the fortune of my friend, Sanarelli, first to see the germ and name it, it has remained for America—the United States—to furnish the indubitable proof of the value of the Italian discovery."

Students of yellow fever literature would, perhaps, have recognized that declaration had it been anonymous. They would have very likely ascribed it to its proper origin. This misinterpretation of a fact, this conversion of the Marine-Hospital Service Commission to the Sanarelli germ, merely because of the malignancy of that saprophyte for certain animals, is indefensible, while Wasdin's discovery that "the specific agent of yellow fever is colonized in the respiratory tract and disseminated therefrom" is equally as gross an error, and another of the absurd propositions advanced by that writer as a fact.

That bacillus icteroides belonged to the hog chol-

era group and was in no way associated with yellow fever, except by accident, was shown by Reed and Carroll of the Army Commission. It might be pertinent to add that the Army Commission, sent to Havana to study yellow fever, succeeded in establishing *facts* to support their contentions, and neither Sanarelli nor Wasdin have been in any way able to refute them. In doing this, too, it might be of interest to say that they overthrew every important position taken by the Marine-Hospital Service Commission, which had been sent to Havana to study the same disease.

The close affinity between bacillus icteroides and the hog cholera bacillus was shown in the following experiments: Guinea-pigs were protected from a fatal dose of the hog cholera bacillus by an immunizing dose of bacillus icteroides previously given. Guinea-pigs were protected from a fatal dose of bacillus icteroides by immunizations with the hog cholera bacillus. Repeated injections of a weak culture of bacillus icteroides protected rabbits from a virulent culture of a hog cholera bacillus. Fifteen guinea-pigs were selected for experimentation, 12 were infected with .03 cc. of a sterile culture of hog cholera bacillus for purposes of inoculation; two of these died. The remaining 10 animals and 3 control-animals were then inoculated with .02 cc. of a virulent culture of bacillus icteroides with the result that only one control-animal died on the thirteenth day. Then the 10 protected animals and remaining 2 control-animals were inoculated with .03 cc. of a virulent culture of bacillus icteroides; as the result of this, one control-animal died, while the 10 immunized guinea-pigs recovered. Four rabbits were immunized with repeated inoculations of bacillus icteroides. They were later injected with 0.1 cc. of a virulent culture of the hog cholera bacillus. The two unprotected guinea-pigs submitted to the same injection, died, while those immunized were not affected.

The serum of a dog, that had been immunized with intravenous injections of increasing doses of bacillus icteroides tested in a dilution of 1 to 5000, brought about prompt arrest of motility of the hog cholera bacillus, followed by agglutination at the end of an hour. The bloodserum of a dog that had been injected with increasing doses of the bacillus of hog cholera, during a period of three months, agglutinated in a dilution of 1 to 2000, the hog cholera bacillus, and the Sanarelli bacillus in a dilution of 1 to 600. These serums failed to agglutinate the typhoid bacillus or the bacillus coli communis, in a dilution of 1 to 20. Sanarelli claimed that the serum of the blood of yellow fever cadavers produced the phenomenon of agglutination in cultures of bacillus icteroides but that the intensity of this reaction was very variable.

Archibald and Woodson claimed this reaction in over 70% of the cases. Wasdin and Geddings did not confirm these observations. Reed and Carroll, making the test in a series of 29 cases, obtained positive agglutination of bacillus icteroides in one case. In the same case, the bacillus of hog cholera

was positively agglutinated, and agglutinated in the same time. These blood specimens were taken at various stages of the disease.

The blood from a number of hogs that had died from hog cholera was tested, and in each case in which it agglutinated the bacillus icteroides also agglutinated. This happened in about 18% of the cases.

Taken in connection with the fact that the blood-serum of yellow fever so rarely agglutinates bacillus icteroides and that, when it does, it also agglutinates the bacillus of hog cholera as well, the truth of the relations of the bacillus icteroides and the bacillus of hog cholera is incontestably established. Blood drawn from a yellow fever patient was tested for the bacillus icteroides. The latter was not found. The blood was then injected into 5 nonimmunes, and yellow fever developed in four of the cases.

What, therefore, is the position of Sanarelli, whose fortune it was first to see the germ and name it, and what, of his sponsor, Wasdin, who offered to his country such effective evidence of its specificity?

Sanarelli contends, by way of defence, that there must have been faulty technique in the Army Commission's work; and he has sought in an extensive article of ridicule to demoralize the mosquito theory—an effort that was perhaps Sanarelli's adieu to his bacillus and his theories, that Reed had sent to wreck and dissolution as though that were the appointed issue for each.

Wasdin's belief is now in conformity with the mosquito facts, though as late as September, 1901, (American Public Health Association) he was in opposition. He still considered fomites the disseminating medium.

He holds now to the icteroides idea, believing that it disseminates yellow fever by means of an enzyme.

He has not explained, however, why it takes the enzyme twelve days to mature in the blood of the mosquito; why it is not as capable of transmitting yellow fever the first day after entering the mosquito blood as the twelfth—a thing that enzyme should be—why this length of time, and what the metamorphosis is.

II.

The actual fact that the culex fasciatus is the intermediate host in the transmission of the disease, and that fomites are not *carriers* of contagion was established by the experiments upon men of the Reed and Carroll Commission. (Read from Part 3 of "Additional note"). Thus in the building, in which fomites were the attempted method of infection, all of 7 nonimmunes escaped, though exposed for an average of 21 nights each to the closest contact with the bedding, night-shirts, etc., that had been sent up from the yellow fever wards, besmeared with dejecta, and soiled from continued use by fatal yellow fever cases. Whereas when the attempted infection was by means of contaminating mosquitoes—that had bitten patients at least 12 days before—the disease was conveyed in 8 to 10 cases—80%.

As a corollary to these findings, the military pre-

cautions against yellow fever in Havana were entirely changed. The old method of isolation and quarantine was abandoned. An infected house came to mean a house that contained contaminated mosquitoes or mosquitoes that had fed on yellow fever patients. Fumigation was aimed at their destruction and the means employed were sulphur, formaldehyde or insect powder. The only precaution taken with bedding, clothing, etc. was to remove them after their fumigation, for the reason that they might otherwise harbor mosquitoes, and for that reason only. The results were what was to have been expected. The disease seemed to have been absent during almost the entire year, despite the fact that Havana has a large nonimmune population and that the disease was introduced a dozen different times. There was a fall of 83%, in 1901, in the number of yellow fever cases.

In January, 1901, there were seven deaths from yellow fever in Havana. In January, 1902, there were no deaths from that disease.

That the sanitary results achieved under the American administration contributed to the control of this pestilence, when its special mode of infection had been shown, was true. But it is not true that general sanitation was directly responsible for the lowered yellow fever mortality of 1901. Infection and not conditions has been responsible for yellow fever. In a report to his Government, for the period ending December, 1900, Major Gorgas (the chief sanitary inspector for the City of Havana) makes apparent the results of proper sanitation, so far as it affects diseases that are dependent thereupon. During the first eight years of that decade, the mortality from tuberculosis was 7.5 to each 1000 in population for each year. In 1899, under improved sanitation, the mortality was 5.39, and in 1900, under still more improved conditions, 3.40.

This progressive reduction was significant of a changed environment. Enteritis dropped from 1163 in 1899, to 560 in 1900, and typhoid fever from 240 to 90 deaths. *During the same period yellow fever increased in the City of Havana.* It was during this year that its special mode of infection was demonstrated. Major Gorgas, with the ample authority of an autocratic government, proceeded with military exactness to execute the new ideas. He divided the city into eight districts. He organized a stegomyia brigade, and an anopheles brigade. They first inspected houses, made wells mosquitoproof and destroyed the larvæ of mosquitoes. The results were most effective. Yellow fever cases began to diminish, and ever after that have been under the control of those in charge. And now the time for quarantine has arrived, but it has been postponed. There is no occasion for quarantine. The restraints upon commerce, the detention of ships with valuable cargoes and impatient passengers, seem to be at an end, so far as American ports are concerned. And in the nature of things it cannot be long before American methods will prevail in every yellow fever center in the tropics, and this *bête noir* of humanity will practise its ravages no more. Inter-oceanic canals may be attempted at Panama, or at

Nicaragua, without the necessity of interruptions and delay, until relays of imported workmen have arrived to supply the places of those who have died of yellow fever—relays that to-morrow would be with yesterday's allotment. Abandonment of camp sites will not be practised in the army encampments of the future on account of yellow fever. An infectible environment will be rendered sterile by the death of infecting mosquitoes. The stench and uncleanness of serried ranks of soldiers or of workmen, hastily corralled, will be inoperative as a producer of yellow fever. The decimation of such ranks will not be possible without the presence of the host that supplies the environment to the ultramicroscopic germ of yellow fever.

Sewer-pipes might burst, and cities be inundated with subterranean mire and filth, and yet this pestilence would be controlled. The experiments of Dr. Reed furnish the only evidence in the history of medicine in which this disease has been produced or suppressed, just as the operators wished; and its subsidence in Havana, after the stegomyia destruction, is the complement of proof, if any were needed.

THE ETIOLOGY AND DIAGNOSIS OF FRACTURES IN THE NEWBORN.*

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Fractures, discoverable in the newborn, are divided into those occurring before birth and those dependent upon delivery.

Intra-uterine fractures may be spontaneous or traumatic. In either case a pathological tendency in bony formation, coincident with faulty embryonic development, exists to a greater or less degree.

Fractures occurring *sub partu* may be the result of a spontaneous process in delivery (although in such instances we may also conceive of a predisposition to fracture), or they may be dependent upon obstetrical manipulation, which induces fracture, the result of force.

The common fractures of traumatic origin occur in the following order: (1) of the humerus; (2) of the clavicle; (3) of the femur.

The inferior maxilla may be the seat of fracture. It may present also a separation of the symphysis, the result of traction in the delivery of the after-coming head.

Cervical fractures are scarcely to be included in the list of the more common fractures. They present as a rule no difficulty in diagnosis, while in the matter of etiology they follow distinctly the occurrence of traumatism.

Cranial fractures, associated with depression of the flat bones and disjunction of the sutures, due to pelvic pressure during birth, present a more interesting field for diagnosis.

In antenatal fractures the degree of traumatism determines the extent of the lesion, as is the case in later fractures. The condition of the skeleton, however, plays here an important part in the predisposition to fracture, for it is only infrequently

*Read before the Philadelphia Obstetrical Society, May 1st, 1902.

that accidents to the mother have proven of such severity as to produce, by violence alone, fracture in utero.

Excluding extraneous causes, muscular contractility, whether of the uterus, as manifested in the rhythmical contractions occurring after the sixth month, or of the fetal members themselves, as a cause of antenatal fractures, is to be considered only as the dynamic factor in a condition of predisposition. As to the causes of such predisposition little is known. It seems inappropriate to speak of the condition as one dependent upon early rickets—if it be proper to use such a term as descriptive of the bony change which occurs. It would be more fitting to speak of the irritative changes which result in rickets as beginning, perhaps, in antenatal life and as being based upon a primary defect in development which affects the skeleton. Intra-uterine osteomalacia is a term which expresses the possibility of a condition analogous to the later form of this disease, but a condition, at the same time, which occurs too infrequently to be considered as a cause in intra-uterine fracture.

Fractures occurring at birth are usually the result—often inevitable—of the abnormal conditions present. For instance, the disproportion between the presenting part of the fetus and the pelvis may involve undue pressure, such as that exerted by the sacrovertebral angle upon the parietal or frontoparietal region resulting in fracture; or this condition of disproportion may involve the necessity of forcible or hasty delivery, which, in turn, may result in fracture.

Version may be responsible for fracture: (1) Of the femur during extraction, as, for instance, through the forcible attempts to drag down the posterior thigh which may have been detained within the uterus. As to this point, in the writer's opinion, the grasp of the imperfectly dilated cervix has in most instances more to do with such retention than the obstruction due to impingement upon the ledge of the bony pelvis. The practical consideration in this view is that the possibility of fracture might be averted if a longer interval were allowed to elapse before the forcible delivery of the thigh through the os; (2) of the humerus, in the attempt to reduce the extended arm after extraction of the trunk; (3) of the clavicle, through forcible extraction of the shoulders; (4) of the inferior maxilla, where great force is used to flex the head.

In breech deliveries the same dangers exist, with the addition of the obvious risk of fracture of the femur in the attempt, first, to reduce the extension of the thigh in the early steps of delivery, and, secondly, to extract the breech where the engagement has taken place with the legs extended.

As to the humerus, fracture of this bone, according to Delore (*Dictionnaire des Sciences Médicales*, fourth series, No. 4, page 201) occurs as frequently as that of all other bones combined. On the other hand, Ruge finds fractures of the humerus less frequent than of the clavicle. Faulty disengagement of the extended arm in breech delivery, the procedure which is most frequently responsible for the lesion, is comprised in the attempt to reduce the

arm without observing the cardinal rule of flexing it across the chest. A less frequent error in the management of breech deliveries is that of attempting to disengage the anterior arm first. Godfrey describes in the *Chicago Medical Review*, 1882, Vol. 5, an instance of fracture of the humerus by the sudden ejection of the child's shoulders, in a head-first labor, while the index finger of the accoucheur was held as a tractor in the anterior axilla, the humerus acting, by the pressure of the pubic symphysis, as a lever.

As to the femur, fracture may be direct or indirect. Direct fracture occurs when traction is made at right angles to the shaft in its middle region, or in the region of the groin when the leg is extended. Indirect fracture occurs through undue or faulty traction upon the feet. The latter presupposes in most instances an inherent lack of tensile resistance in the bone.

Diagnosis.

The first requisite in the study of these cases is the careful inspection of the infant after birth. When no force has been used in delivery, the occurrence of fracture is naturally overlooked, and yet the possibility of intra-uterine fracture may determine the lesion irrespective of labor, or the fragility of the skeleton may predispose to fracture the result of the normal process of delivery.

In considering intra-uterine fracture, the history of preceding deliveries, the course of pregnancy and the condition of the mother claim our attention. Tuberculosis and syphilis, upon either of which an osteomyelitis in utero may depend, may be responsible factors. Two points in the study of such fractures are important: First, the fact that the lesions are generally multiple, involving such bones as the tibia and fibula, bones which ordinarily escape fracture of traumatic origin pure and simple; secondly, the tendency to distinct loss in bony continuity—a condition which points more clearly to the existence of the lesion than in cases of fracture incident to birth, in which the lesion is often undiscoverable before the infant gives subjective evidence of injury.

Fractures in partu are likely to occur in precipitate labors and in instrumental and assisted deliveries. Considering the subject in order, we may dismiss the rarer and at the same time more readily demonstrable fracture of the cervical vertebræ with an allusion to (1) the history, in given cases, of forcible delivery by podalic extraction; (2) evidence of rupture of the cord; (3) evidence of rupture of the nerve trunks in the foramina of exit—this notwithstanding the observations of Ruge (*Zeitschr. f. Geb. u. Frauenkr.*, 1876, I., p. 68) i. e., that the separation takes place in the substance of the vertebra, rather than in the intervertebral attachment, the region in which, namely, the nerves find their point of exit; (4) the presence of paralysis of the upper extremity, where such rupture affects the origin of the brachial plexus; (5) the occurrence of intra-spinal extravasation. The epiphyseal separation in the vertebræ may be confused with spinal luxation. The latter, however, is a rare condition.

Before referring to cranial fractures it may be

well to allude to the separation of the squamous portion of the occipital bone from the basilar portion described by Ruge. He relates an instance of this in which the squamous portion became displaced downward and forward to such a degree as to reduce the diameter of the foramen magnum and constrict the medulla.

Beyond the symptoms of cerebral compression the differentiation of fracture from cranial impression is not always easy. In fact, the latter is known to exist coincidentally with fracture of the inner table. Depressions, however, are usually the result of the natural conditions present in the forcible driving of the fronto- or occipitoparietal region against the promontory, in contracted pelves, and are rarely found as a result of injury by forceps, except in so far as the primary pelvic pressure is accentuated by the forcible extraction. In such instances the graver injuries, such as fissure-like fractures, disunion of sutures and external extravasation, are present. The sudden sense of succussion, which during labor often denotes a rapid change in the diameters of the head, is characteristic of depression.

Subdural hemorrhage is an inevitable accompaniment of fracture, and, in cases of occipital fracture, rupture of the transverse sinus is not uncommon.

Fracture of the clavicle is less easily recognized than that of the long bones, inasmuch as voluntary movements of the infant do not involve as extensively muscular tension upon the fragments. The displacement is usually slight, and the deposit of callus is sometimes the first sign that fracture has taken place. Subjectively the symptom of pain may be elicited by lifting the child with the hands beneath the armpits. When displacement exists, it is due chiefly, as in the adult, to the action of the serratus magnus, rocking the scapula forward and, through the acromion process, pushing the outer fragment inward. On the other hand, the periosteum may remain intact and the fragments may be kept thus in apposition. (J. H. Packard, Keating, Vol. III). An interesting complication, bearing upon the clinical relationship of postnatal emphysema to fracture of the clavicle, has been described by Heydrich (*Centrabl. f. Gyn.*, 14, 1890). The case was that of a footling presentation in a contracted pelvis. Delivery was hastened on account of prolapse of the funis, both arms having become extended, the right anteriorly. The infant, asphyxiated at birth, was finally revived, but was found dead two hours after birth. An emphysematous swelling of the neck was discovered, reaching to the upper jaw and extending downward to the eighth rib. The autopsy revealed partial atelectasis of the right lung, with a minute perforation of the pulmonary pleura covering the upper lobe of the right side. A corresponding puncture in the costal pleura extended parallel to the mammary line between the first and second ribs. The fracture occurred in the middle third of the bone. The minuteness of the puncture permitted the establishment of respiration, but the distention of the lung was quickly followed by pneumothorax and extensive subcutaneous emphysema.

The sternal end of the clavicle is sometimes the seat of epiphyseal separation, and is usually accompanied by a tearing of the sternal portion of the sternocleidomastoid (Ruge).

The diagnosis of fracture of the long bones is obscured to a greater or less degree by the possibility of such conditions as epiphyseal separation, luxation and, in the case of the humerus, obstetrical paralysis. The history of the individual case will point to the probability of fracture; that is, as to the method employed in delivery, the evidence of hereditary syphilis, which may either give rise to the possibility of fracture or may occasion some condition resembling fracture, and especially the presence of other fractures.

Fractures of the humerus should be those most easily detected, inasmuch as their occurrence is the most frequent as compared to fracture of the other bones. Manipulation will usually determine abnormal mobility at the point of fracture, if not crepitus, the head of the bone remaining fixed in its proper position and not palpable as in dislocation. A flaccid condition of the affected arm is not absolutely indicative of fracture, nor does it depend altogether upon fracture, since fracture of the humerus in the newborn may be associated both with obstetrical paralysis and musculospiral paralysis (Scudder, *Treatment of Fractures*). Shoulder dislocation is much less common than fracture, although the same obstetrical procedure may be accountable for either. It is further found to be, as a rule, of antenatal or developmental origin. The epiphyseal osteitis described by Parrot, in which a flaccid parietic condition of the extremity exists, may be mistaken for fracture near the extremity of the bone. The points of differentiation are that the former condition is usually multiple and progressive and is associated with tumefaction in the region of the epiphyses. The lesion is one of congenital syphilis.

Fractures of the femur occur next in frequency to those of the humerus (Delore, *loc. cit.*). The point of fracture is at the junction of the middle and upper thirds of the bone. The degree of displacement varies. If the periosteum is not detached, the signs of fracture are not pronounced. If, on the other hand, the fracture has been complete, the angular deviation is sufficient to produce shortening of the limb. The latter is increased by the play of the flexors, which in intra-uterine life have been subject to habitual contraction. The upper fragment is thus constantly distorted, forming an angle opening backward and toward the inner side of the thigh. Dimpling of the overlying tissues on the outer side of the thigh may or may not be present. H. M. Sherman (*vide Annals of Surgery*, June, 1901) describes two instances of deformity of unusual interest. The first is that of an infant born without instrumental delivery, in which the shortening of the left thigh was shown by skiagraph to be due to an apparent fracture of the femoral neck; the second, the opportunity for the inspection of which was offered by Dr. E. P. Davis, is an instance of deformity of the femur due to union in faulty position after possibly intra-uterine fracture. In this

case the radiograph showed delayed ossification at the lower epiphysis and an entire absence of the upper epiphysis of the bone.

In general, there are certain positive signs which should lead to the diagnosis of fracture: among these are the infant's cry indicative of pain, disability as to motion, dimpling of the overlying tissues, swelling of the soft parts and undue mobility. The evidence of displacement revealed by the radiograph is, of course, conclusive. On the other hand, the degree of displacement and the differentiation of fracture from dislocation is sometimes obscured by the presence of fat in overgrown children.

UNUSUAL COMPLICATIONS SUPERVENING IN A SIMPLE EXTIRPATION OF A MULTIFOCULAR CYST OF THE OVARY.

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Enucleation of freely movable, non-adherent, and non-suppurating ovarian tumors, in this era of advanced aseptic surgical technique, is not universally regarded as a very formidable or perplexing procedure, and, the dread and apprehension which prevailed in these operations when asepsis was in the process of development and final maturation, are now almost *nil*, and simple ablation of an average-sized and perfectly mobile tumor, under ordinary conditions, is no longer fraught with that anxiety for infection which characterized so forcibly the majority of earlier operations. The simplicity of enucleation of a small-sized and non-adherent tumor, the rapidity and facility with which the work can be executed, and the infinitely rare occurrence of sepsis under intelligent and circumspect aseptic precautions, renders laparotomy under these circumstances relatively secure, and ordinarily devoid of great hazard or peril to the patient, and the multiplicity of successful celiotomies which are being annually chronicled, and the comparative benignity of simple exploratory incision affords quite convincing evidence of the gigantic strides of aseptic surgery. Semi-occasionally, however, even when the simplest form of operation has been practised, when the technique, apparently, has been irreproachable, where every precautionary measure has been observed to force the results to a speedy and successful termination, unsuspected complications will sometimes occur which will serve to frustrate the method in hand, will react as an inevitable menace to life, and culminate in throwing confusion into the way of well-directed methods and ends. The reporting of a single case will scarcely enrich or illumine, to any appreciable extent, the literature of the subject, for the multiform complications which have been so extensively and elaborately recorded in various ovario-tubo-uterine pathologic conditions, for which surgical intervention had been instituted, will scarcely admit of a prominent niche in the record-chamber of abdominal surgical complications for the subjoined case; yet, it seems essential that dangerous complications supervening or following in any case of surgery, and, particularly in those conditions

which were regarded at the period of surgical interference as bereft of special anxiety, and in which a favorable prognosis would have seemed a justifiable procedure, should be kept constantly before us, in order to render us habitually and keenly alive to the possible gravity and serious complications which can ensue, even in instances of relatively mild cases. Contingencies of such character, however, should impart additional vigilance. As an illustration of the points herein hinted at, I wish to report the following case:

Personal history. Mrs. Mattie R., white, aet. 36, married 17 years, mother of 7 children, all living and healthy, and she has never miscarried. Her father died at 53 from an apoplectic stroke, but her mother is living, and enjoying excellent health. Patient says that she has never suffered from any serious illness except, an attack of typhoid fever, which she contracted when a girl of 15, which was not unusually severe, and from which she speedily recovered. The ordinary diseases of childhood such as parotiditis, measles, scarlatina and whooping cough she has had, but not especially severe, and, no complications or sequelæ attended the above mentioned troubles. Her health had always been good, and, being of moderate means and of a frugal disposition, she had never hired an assistant, but attended to her household duties herself, and was never fatigued, even after apparent laborious work, until about 5 years ago, when she first noticed a sort of "weakening" after completing her regular day's duties, a sense of heaviness in the loins and pains in the back. Some weeks after the inception of the symptoms just described, she noticed for the first time a small growth about the size of an average-sized coconut in the left iliac region, which was not sensitive to manipulation and which could be felt to change its place when handled in the recumbent position. The patient at once consulted a physician, who made an examination, prescribed certain remedies, and gave her to understand that it was a "tumor," which would gradually disappear. Instead of deriving benefit from the treatment instituted, and which was carried through a period of 3 or 4 years, she gradually began to decline, generally, and about 2 or 3 months prior to her visit to me she had begun to become greatly annoyed by the growth, and, in fact, was largely incapacitated for the performance of those duties which taxed her physical strength. The tumor, during the interval mentioned, grew steadily, even to the point of filling a large portion of the abdominal cavity: she gradually lost flesh, some 15 or 20 pounds, frequent micturition was an annoying symptom, and constipation had become so obstinate as to yield only to purgatives, and, later, hemorrhoids developed, which also offered a source of much irritation. In conjunction with the above mentioned ailments, there was not infrequently nausea after eating, and occasionally absolute emesis would supervene with total ejection of food contents from the stomach. Dyspnea would be engendered upon the least exertion, and at times slight edema around the ankles would be noticed. Her appetite was sometimes capricious, and for the past 6 months her catamenia had not occurred.

Personal Observation. Examination reveals the patient to be a woman of average height, weight about 110, slightly anemic and thin facial features, with distinctly protuberant abdomen, which accentuates the apparent thinness of the extremities and facial lines. Examination of the heart reveals no organic disturbances: the pulse is somewhat accelerated, and the second sound of the heart is a trifle louder in character, but, otherwise, further deviation from the normal cannot be detected. The respiratory movements are slightly quickened, though a careful examination of the lungs shows an absence of pathologic change and the urine analysis discloses no striking abnormalities, sp. gr. 1020, acid reaction, an absence of both albumin and sugar; microscopically, bladder epithelium and uratic crystals. There is slight pitting around the malleoli upon pressure, very noticeable turgidity of the superficial veins in the lower extremities, particularly upon assuming the erect posture, and, likewise, there is visible appreciation of the distended superficial venous distribution in the abdominal walls. The contour of the abdomen is inapprecia-

bly changed by the recumbent position, the abdominal outline describing nearly the same spherical form, save for the presence of a sort of secondary and smaller curve in the right side, which can be better outlined upon careful palpation. Bimanual examinations of the uterus shows this organ to be normal in size and intact, except for a slight downward and lateral displacement. The left ovary cannot be defined, but a large mass, ostensibly semi-solid, occupying the left inguinal site can be palpably outlined, and upon vigorous manipulation can be made to dislodge from its bed, and to undergo free and almost unimpeded movement, thus demonstrating its mobile character; the right ovary is now digitally explored for, but its identification is likewise negative, and occupying its location, is found another semi-solid mass apparently the dimensions of an average-sized cocoon, spherical in form, ordinarily mobile, and from all appearances is a distinct development from the right side. The hemorrhoidal veins are somewhat injected, and there is slight protusion of the anal mucous membrane. Thermometer shows a normal temperature; pulse 84.

Remarks. The natural inference was, that there existed 2 tumors, involving, in each instance, the right and left ovary, which most probably were of a cystic origin, and that the pressure created upon the intraabdominal structures by the presence of these growths inaugurated the variety of symptoms previously described, viz: (1) Exaggerated constipation with resultant hemorrhoids; (2) irritability of the bladder with frequent micturition; (3) nausea at times, after eating, with occasional emesis; (4) slight pitting around the malleoli upon pressure; (5) slightly augmented respiratory movements and accelerated pulse-beat; (6) dyspnea upon extra exertion. Extirpation of the growth by the usual abdominal method was proposed, and was heartily acquiesced in by the patient, who welcomed any positive chance of recovery.

Operation. The patient was put upon a nourishing diet for several days in advance, and a ferruginous tonic with strychnine was administered t. i. d. The bowels were opened daily with purgatives and enemata, and the urine was examined repeatedly. The usual pre-operative measures both aseptic and otherwise were rigidly enforced; the patient being nourished and toned up, and the abdomen scrubbed and aseptized with the usual care for abdominal invasion. The pubic hair was shaved away, the entire abdomen scrubbed with soap and water, then with pure alcohol, followed by lysol sol. 2% and finally a wet bichloride dressing 1-5000 was applied. The vagina was thoroughly scrubbed with soap and water, and likewise treated to a generous douching with bichloride sol. 1-5000. The day following this procedure (July 12, 1901) the operation was done, assisted by my friends, Drs. Z. T. Gallion, and Joseph Stephen, and Messrs. Leopold Kaffie and Robert Hollingsworth (medical students). Prior to the administration of the anesthetic, chloroform, a hypodermic of strychnine sulphate 1-30 and atropine 1-100 was administered. The usual median incision was made, reaching above the umbilicus and extending throughout a distance in all of about $1\frac{1}{2}$ decimeters. The abdominal walls were extremely attenuated from the intra-abdominal pressure and the reduced condition of the patient's general health, and were scarcely over a centimeter in diameter. When the abdomen was reached, and the tumor observed more accurately, the ante-operative surmise, in so far as the cystic character of the growth was concerned, was safely confirmed, and upon introducing the hand the growth was found to be perfectly movable, and non-adherent, except for a small attachment to the omentum. Attention was not diverted to the supposed second tumor in the right lower abdomen, which upon a critical survey, both manipulative and ocular, could be seen to conform to the general outline of the primary tumor in the left side, and upon further observation it was ascertained that it sprang from the left side, had become adherent to the parietal peritoneum, and slightly to the intestinal coils, and was pronouncedly pedunculated in its development from the original growth, thus simulating by its conformation, situation and attachment, a second abdominal growth. In attempting to deliver the cyst through the incision, the pressure exerted upon it ruptured the sac with a resultant leakage of about 1 litre of a clear, semi-tenacious mucoid material into the abdominal cavity.

The rupture was secured by large forceps, and further escape of fluid prevented; the tumor was soon delivered, and the hand next inserted into the right side to locate the migratory off-shoot which was detached without difficulty, and the growth—in toto—was removed, with part of the tube and broad ligament. Braided silk was utilized in tying off the tumor *en masse*, and catgut for the slight omental adhesion. The abdomen was flushed with several gallons of normal saline solution, the parietal peritoneum and intestinal coils were examined closely for bleeding, but the exposed surfaces were too small for much consideration, and precluded the thought of a Mikulicz drain. After examining the right ovary, which was found free from disease, and noticing carefully the remaining pelvic organs, the incision was closed by the through-and-through suture with silk worm, and catgut was employed for making the intermediate and superficial closing. Iodoform dressing and adhesive strips with a snug-fitting abdominal binder completed the usual routine dressing.

Remarks. The patient stood the operation admirably, there was very little shock, and the absence of multiple or dense adhesions, and an absence of hemorrhage, and the fact, too, that the patient took the anesthetic agreeably, rendered the operation of short duration, and comparatively easy of execution, without a sacrifice to any of the minor details. The patient recovered rapidly from the effects of the anesthetic, was never nauseated, and the day following the operation, her temperature showed an elevation to 99° F., with a fine strong pulse of 76. On the 3rd day, her bowels were moved with a saline, there was no tympanites, and temperature and pulse registered the same as the day following the operation. On the 5th day, the wound was dressed, the abdomen was relaxed and no evidences of meteorism were present, while the temperature and pulse were now at normal condition. Patient's general condition steadily improved, bowels open, temperature and pulse normal, suture removed on the 8th day after the operation and wound found to be healthy and well-united. The patient was now considered practically out of danger, and every assurance was given of a rapid recovery and an early return to her home, when on the evening of the 10th day after the operation, the temperature suddenly rose to 102° F., without any explicable cause.

Post-Operative Complications. I was summoned that evening to see the patient and was somewhat surprised to witness the elevation of temperature, which I ascribed to inactive bowels which had not moved since the day previous, and I ordered a saline, restricted the diet (which for the two days previous consisted of soft boiled eggs, milk toast, coffee, chocolate, etc.), to that of a liquid character, and as the patient felt no pain, and was perfectly bright, I inferred that it was merely a transient rise, which would be dissipated upon the precautions taken. By the next day, her bowels had moved freely, evening temperature showed a rise to $100\frac{1}{2}^{\circ}$ F., the patient seemed undisturbed by the temperature, and was as bright and cheerful as ever. The fever persisted despite the measures which were taken, and I began to suspect malaria or possibly local infection. I examined the abdominal cut for stitch abscess which I thought might have formed and escaped my notice, but the wound was found to be perfectly healthy, and free from pyogenic infection. The possibility of pelvic abscess was not overlooked, and a careful vaginal examination was made, but with negative results. The abdomen, externally, showed no local tumefaction, which, if present, could have been easily determined, because of the relaxed status of the abdominal walls. An examination for the malarial plasmodium was made, but the organism was not present. (Widal's reaction was not made, neither at any time was a blood-count made or the blood examined for streptococci or staphylococci, which is to be regretted, inasmuch as it renders the report somewhat incomplete, but the subsequent course of events shows that such would not have materially influenced the complications and treatment therefor). Fearing that an element of malaria was associated with the sudden onset of the temperature, in spite of a negative blood examination, and an absence of enlarged liver or spleen, I commenced with quinine sulphate gr. v every 4 hours in connection with the regular heart stimulant of strychnine sulphate 1-30 of a grain, which had been kept up constantly since the operation. After keeping up the

cinchona preparation unceasingly for 72 hours without any appreciable effect, the temperature showing morning remissions $100\frac{1}{2}^{\circ}$ evening exacerbations $102-2\frac{1}{2}^{\circ}$ F., it was decided to suspend the quinine to 3 times a day. The abdomen and uterus were examined regularly, but without definite results until about 8 or 10 days after the inception of the abrupt rise, when a small bulging mass, of doughy consistency, occupying the left side, and immediately to the left of the cervix, which was sensitive to pressure, could now be distinguished. It was at this time, too, that the patient began to manifest certain signs of sepsis; there were coated tongue, occasional slight chilly sensations, accelerated pulse, and sometimes attacks of excessive perspiration. An aspirating needle was introduced into the most prominent part of the bulging mass, and a foul smelling pus was withdrawn, which was removed at once by hooking the cervix to the right side, and opening through the vaginal wall. Thorough irrigation of the abscess with a 1-5000 bichloride sol. and with pure hydrogen dioxide was practiced, and finally a gauze drain was inserted. The temperature fell the next day to 101° F., in the afternoon, pulse-rate reduced proportionately, and the patient seemed improved. The pus cavity was thoroughly irrigated twice daily with the usual antiseptic solutions, and a soft rubber drainage tube was employed to supplant the gauze drain for a couple of days. The patient's condition began to ameliorate, the temperature gradually fell to 100° F. in the evening, and every evidence of an early restoration to health was manifest. It was during this time, 10 days after the discovery and evacuation of the pelvic abscess, that the discharge was observed to wear a urinary odor which raised a suspicion of urinary fistula, which was verified later, by the unmistakable leakage of urine through the abscess opening. The juxtaposition of the abscess to the bladder had now created a new source of annoyance, but the patient seemed to improve, could void the water at regular intervals, and in fact, was not inconvenienced very much by the presence of the fistula, which permitted only a small outflow and which fortunately healed spontaneously 7 days after its discovery. The abscess cavity, 2 or 3 days later, became practically obliterated. The temperature during this time had never reached normal, oscillating between 99° and 100° . Examination of the uterus now disclosed only a small circumscribed mass of unabsorbed inflammatory exudate; otherwise everything seemed normal. Notwithstanding the termination of the abscess and fistula, the temperature fluctuated between 99° and $100\frac{1}{2}^{\circ}$ F. for a week after, and upon re-examination of the uterus and adnexa, nothing special could be detected. In the left lumbar region, about one decimeter from the umbilicus in apparent close proximity to the site of that portion of the omentum which had been resected, could be found a sensitive mass about the size of a small orange. The possibility of a second localized abscess immediately forced itself for consideration, and the sensitiveness and constant pyrexia, 99° to $100\frac{1}{2}^{\circ}$ F., led to the conviction that exploratory laparotomy was the safest and most expedient remedial measure. The somewhat weak and depressed state of the patient now argued against the utilization of a general anesthetic, and the local infiltration of cocaine was deemed the proper procedure. Solutions of 1-5 of 1% and 1% were employed, the former for superficial (4 cc. used) and the latter (2.5cc.) for deep injection. A longitudinal incision 8 or 10 centimetres immediately over the mass was made; when the peritoneum was reached, it was found adherent to the omentum, which was inflamed and by its adherence to the parietal peritoneum formed the little mass or nodule just spoken of. A faithful search was made around and into the agglutinated structure, but without eliciting further information, and as there were no evidences of suppurative changes present, it was thought advisable to close the abdomen. The patient continued to carry the temperature of 99° to 100° and 101° F., as usual showing evening exacerbations. One week after the exploratory incision, which had now practically healed, the temperature showed a marked proclivity to rise in the evening, reaching as high as $102-103^{\circ}$ F., pulse became quick and small, 110-115 per minute, profuse sweats developed, face began to wear a cadaveric paleness, and in fact general sepsis was unmistakably present. A second laparotomy under cocain was now (8 days later) regarded as

imperative, and was performed identically as in the previously quoted instance, except that the incision was carried 3 centimeters to the left of the original exploratory cut. Our efforts were rewarded this time, in the evacuating of about a half deciliter of tenacious and extremely foul-smelling pus. The walled-off abscess cavity was irrigated lightly with the usual antiseptic solutions, and drained with gauze. The temperature dropped in a couple of days to 99° F., and the patient began to show evidence of improvement. Seven days after the second incision a fecal fistula formed, which discharged quite freely through the abscess opening, and by its presence, exaggerated the purulent discharge. As the intestinal perforation could not be seen through the incision into the abdominal wall, and as the abscess showed a disposition to burrow posteriorly towards the lumbar muscles, it was decided to make a through-and-through drainage, by making another incision under cocaine, through the lumbar space, and thus admit a rubber tube for constant and effective drainage. A 2 centimeter cut accomplished this, without unnecessary disturbance to the patient and the rapid drainage of the pent-up material yielded immediate beneficent results. The cavity gradually became obliterated, and the fistula closed spontaneously 12 days later. Two weeks later, the patient was allowed to return to her home, in Sodus, Louisiana.

Remarks. The complications which have been somewhat elaborately reviewed in the case presented above offer, I think, some novelty in the tracing of the infection which nearly culminated in the death of the patient, and which unquestionably proved a source of great anxiety and irritation to the attending physician. It may be stated that pus taken both from the pelvic and abdominal abscess contained streptococci. Rubber gloves were utilized in the operation, and it is scarcely necessary to add that every other aseptic precaution was faithfully observed.

Inferences.

(1) Whether the infection started from the severed tubal extremity which was diseased and escaped detection, resulting in a pelvic abscess with secondary infection in that point of the omentum which had been divided at the time of operation; (2) by a possible contiguity of structure (and this would seem somewhat difficult to comprehend as both were localized abscesses, one in the pelvis, the other in the abdomen, with an interval of fully 2 decimeters between them), or (3) whether the irritative effects of the unabsorbed silk suture (there was not found at any time a shred of suture material in the pelvic discharge) should have laid the foundation for the pelvic complication, with a subsequent possible metastasis in the omental stump, or (4) whether it is probable that a streptococcus infection was communicated to the omentum upon the primary exploratory cut, and finding lodgement in the inflamed structure eventuated in abscess formation, are debatable questions; suffice it—

(a) That the primary trouble commenced in the

*The remarkable diminution in the amount of purulent outflow when the tube was carried through the loin by this posterior or counterincision, permitting constant drainage, convinces me of the absolute necessity of this procedure, the posterior cut, in those abdominal pus formations which offer, in the least way, a blockading through the anterior route. The rapid carrying off of the partially pent-up purulent matter in the abscess cavity, allowed of an early closure of the fecal fistula spontaneously and thereby fortunately obviated the necessity of lengthening the abdominal incision and doing an enterorrhaphy. This life-saving expedient, the counterincision has been lucidly demonstrated by many reported cases, and is strongly urged in a very practical paper by Dr. Smyth, of Memphis, Tenn. (Appendicitis, Trans. Mississippi State Med. Asso., April, 9-10, 1901.)

left side of the pelvis, inaugurating a sudden temperature of 102° F., 10 days after the original operation, during which interval the temperature had been normal except for the first two or three days, when it did not exceed $99\frac{1}{2}^{\circ}$ F.

(b) That a secondary abscess formed, ostensibly in the omentum, immediately over that portion which had been resected from the cyst, which abscess was discovered some $2\frac{1}{2}$ weeks after the pelvic complication.

(c) That both abscesses contained streptococci.

Conclusions.

There are several unique and interesting features associated with the above cited case, some of which I may briefly enumerate, as follows:

1. A multilocular cyst of the left ovary, giving off a smaller pedunculated cyst, quite long enough to occupy the right inguinal region, which became sufficiently attached to the parietal peritoneum as to hold it *in situ*, and thus simulate a second and entirely independent growth.

2. The abrupt rise of temperature 10 days after the operation, and the subsequent formation of a pelvic abscess without apparent assignable cause, which abscess after its evacuation resulted in the development of a urinary fistula, which closed spontaneously one week after its discovery, the abscess itself becoming obliterated without apparent damage to adjacent structures.

3. The later development of an abscess in the abdomen over the site of the cut omentum, which abscess formed a fecal fistula which ultimately closed of itself, and the abscess proper undergoing final obliteration.

4. The presence of streptococci in the pus of both abscesses, demonstrating the common origin of the dual pus formation.

5. That two extra-abdominal, one lumbar and one vaginal, incision should have become requisite, and over two months spent in bed, when every indication of an early and absolute recovery from the primary operation itself seemed assured.

Addendum.

In a recent communication from the patient's husband, he writes that "his wife has gained 15 or 20 pounds, is now enjoying excellent health, and has resumed her household duties again as of yore."

THE NERVE ELEMENT IN DISEASES OF THE EAR, NOSE AND THROAT.*

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The intimate relationship existing between the ear, nose and throat and the general nervous system continually reminds the specialist of the necessity of making a careful study of general as well as local conditions. This need is not always perceived by the general practitioner when dealing with the ear, nose and throat, and he is apt either

to direct his attention to the local lesion or to expect a cure from constitutional treatment alone. Bearing this in mind it would seem to be advisable to consult a specialist when symptoms point to disease of these organs, for he alone will be able to recognize the local defects, to perceive associated constitutional conditions and to determine their relative importance. This course will be seen to be the more advisable when it is known that the aurist and laryngologist can often discover general diseases and diseases of other organs by the local appearances present in his special field—a diphtheritic patch, syphilitic ulcer, paralyzed vocal cord, gouty throat and tubercular infiltration are a few of the many conditions that may first call attention to the presence of grave disease involving other parts of the body.

The attention of the writer has been drawn to the subject under consideration by the number of persons who have sought treatment for ear and throat symptoms which were found to be chiefly due to general nerve asthenia. The symptoms were not in every case severe, but their persistence rendered the patients uncomfortable and unhappy. Some or other of the following symptoms were present in these cases. Recurring colds in the head; frontal and occipital headache, usually present in the morning; fulness and tightness at the root of the nose; neuralgic pains of the head; obstructed breathing; dryness of the pharynx; desire to cough and clear the throat, the sensation of a lump in the throat, huskiness and momentary loss of voice; tinnitus, deafness, momentary attacks of aural vertigo and light-headedness; occasional snapping and cracking in the ear and hyperesthesia of the auditory nerve for certain sounds. Anyone of these symptoms can occasion much distress, and any relief will be gratefully welcomed by the patient.

The pathological conditions present in such cases can be grouped as follows:

1. Neurasthenia. This is evidenced by subjective symptoms; also by general hyperesthesia and vasomotor instability, causing local irritability and local congestions.

2. Chronic catarrh. Vasomotor weakness predisposes the nasal membrane to catarrhal congestions, which process may extend to the throat and to the ear.

3. Local lesions. Such as hypertrophies of the turbinates, deflections and spurs of the septum, nasal polypi, atrophic rhinitis, empyema of the sinuses, adenoids, hypertrophied tonsils and swellings at the base of the tongue; in the ear—impacted cerumen, catarrh of the Eustachian tube and middle ear, disease of the internal ear.

These three factors reacting upon one another may produce symptoms and pathological changes out of all proportion to the size of the original local defect, and treatment, to be successful, must be directed against all three.

The following interesting case illustrates to a certain extent what has been said above.

M. H., aged 23 years, a strong-looking Swiss girl, came to the Presbyterian Hospital Dispensary in November, 1901. She had suffered the last three years from severe neuralgic

*Abstract of a paper read before the Germantown Medical Society, Jan. 27, 1902.

pains in the cheeks, forehead and occipital region. During this time she had not been able to breathe through her nose. Some neurasthenia was evidently present. The headpains had been ascribed to intranasal pressure and inflammation of the sinuses, but local treatment by her physician had produced no good results. Upon examination, the turbinates were found to be pressing against the septum—large, edematous and pale. Applications of cocaine and adrenalin chloride reduced them somewhat and brought to view cystic masses on the upper and lower surfaces of the left inferior turbinate. These were removed.

No change occurred under ordinary local treatment, and as the condition of the turbinates indicated profound vasomotor disturbance, careful inquiry was made in the hope of finding some other disease that might be helping to cause this disturbance. Symptoms were elicited pointing to involvement of the eyes and of the uterus, and the patient was sent to an oculist and to a gynecologist. A slight ocular defect was corrected and the womb, which was found to be badly retroflexed, was restored to its normal position. After this, local treatment of the nose, before ineffective, began at once to give results. The patient was soon able to breathe freely through the nose and the neuralgic pains disappeared. Within four months from the time of the first examination the patient was entirely well.

RECTAL STRICTURES, WITH REMARKS ON ELECTRICAL TREATMENT.

By WALTER H. WHITE, M. D.,
of Boston, Mass.

Ex-President of the American Electro-Therapeutic Association.

In an essay on the treatment of a case in which electro-therapeutics occupies a prominent part, it may not be out of place to give a few words of explanation. An article read before the American Electro-therapeutic Association at Washington, September 19, 1899, entitled "A plea for the general use of the volt-meter when treating patients with the galvanic or continuous current," I urged a more thorough description of the electrical treatment, that is, giving the voltage, as well as the amperage, the length of time, and description of electrodes used, thus giving an accurate guide to any one wishing to treat a similar case. To say a patient received electricity is no more than to say that they had some medicine, and as is usually quoted "the patient received 20 or 50 milliamperes (M. A.) tells but one-half the story, as the number and kind of cells or other means of generating the electromotive force (E. M. F.), in other words, the voltage, which is quite as important in its way as the amperage. For example, 20 M. A. with 110 volts pressure (Edison current varies from 110 to 120 volts) overcomes twice the resistance of 20 M. A. with 55 volts. It does nearly twice the work with the same resistance. So, if a physician reads of 20 M. A. from the Edison or continuous current being used, he, following this description, would give nearly three times the amount of current or *watts* as the one who cuts the current down to 35 V. with the 20 M. A. The first probably cauterizes, causing pain and discomfort to his patient, while the second relieves both pain and inflammation. The following is a report of a case read by me before the American Electro-therapeutic Association at Buffalo, Sept. 24, 1901:

Miss P., aged 37 years, anemic, complained of intestinal dyspepsia, had had grip November, 1898, and later peritonitis, had pains in left ovary, sensitive to slight pressure, antifixion of the uterus with painful menstruation, with great sensitiveness of posterior wall of the vagina. When questioned about her previous treatment said "that having

had a severe attack of dysentery many years previous, which had resulted in the stricture and later ulceration, local treatment was given and afterwards dilatation was resorted to." The movements of the bowels were the usual "pipe stem" variety after either an injection or the use of suppositories given to relieve the pain, as much as possible. The stricture was $3\frac{1}{2}$ inches from the anus. I said I would try and see what could be done with electricity. My armamentarium consisted of a cabinet battery having the Edison light or continuous current, manipulated by means of six lamps to control the voltage and amperage, the latter being still further controlled by a water rheostat; it also had a Whitney volt meter and a Weston milliamper meter.

The electrodes consisted of the Kidder copper, and the zinc olive shaped bulb electrodes measured in 1/100's of an inch diameter, and a large surface pad of 150 cm. dimensions. Owing to the extreme nervousness of the patient I was unable to examine thoroughly with the proctoscope, and was obliged to make use of cocaine solution during the first few treatments. After a thorough washing out of the bowel with weak mercurial solution on June 30, 1900, I began treatment, using No. 50 copper olive rectal electrode as the cathodal pole with the pad at the back for the anode, using the continuous current 35 volts, 15 M. A., taking 15 minutes to pass through the stricture.

July 5	used	No. 54	olive	35V.	20	M. A.	10 min.
" 9	"	58	"	"	"	"	18 "
" 14	"	62	"	"	"	"	10 "
" 19	"	66	"	"	"	"	5 "
" 23	"	70	"	"	"	"	5 "

Then she went on her vacation which caused a suspension of the treatment. On October 5 I resumed the treatment as follows:

Oct. 5	No. 70	olive	37 V.	20	M. A.	15	min.
13	70	"	"	14	"	"	"
19	74	"	"	15	"	"	"
29	78	"	35	"	"	"	"
Nov. 5	78	"	"	"	"	10	"

Owing to there being so much pain above the stricture, Nov. 12 I changed to No. 66 zinc olive, which could be passed through the stricture easily, to cause healing of an ulcerated surface above the stricture, the electrode being thoroughly amalgamated with metallic mercury and using it as the anodal pole with the same strength of current for 10 minutes, rotating slightly at times to prevent it adhering to the parts. Nov. 20 used both treatments, first the No. 66 zinc for 10 minutes, then No. 78 copper for 10 minutes, same strength of current, viz.: 35 V., 20 M. A. Nov. 28 same treatment. Dec. 3 zinc electrode only was used. Dec. 17 both zinc and copper, 20 V., 10 M. A., 10 minutes each. Dec. 29, same as above. Jan. 16, same as above. Patient was taken ill with tonsillitis, so was away for about a month. Returning February 10, I insisted on a thorough examination with a proctoscope, finding the stricture with a partially healed ulcerated surface above it. February 20th., resumed treatment, using No. 70 zinc olive amalgamated as before, 20 V., 10 M. A., for 10 minutes for ulcerated surface and later No. 78 copper cathodal pole, same strength of current. After the treatment I now used a dressing of iodoform gauze with eucalyptus ointment. March 11, local application only. March 18, electrical and local treatment. April 4, No. 84 copper electrode was used, 35 V., 15 M. A., 10 minutes with local treatment. April 11, same. Local treatment with gauze and ointment was used between the last 4 electrical applications. After April 11, electrical treatment was suspended and once a week the local treatment of ointment and gauze was applied, until the middle of July. On June 6 she announced she had had her first movement without pain. Examination on July 29 showed stricture enlarged sufficiently to pass No. 88 bulb and the mucous membrane in a healthy state, so I pronounced the patient cured.

Adrenalin in Metrorrhagia of the Menopause.—Debrand reports 2 cases of metrorrhagia of the menopause, in the treatment of which condition he gave adrenalin internally with great success, stopping the hemorrhages immediately and permanently. He believes it to be an excellent hemostatic, but still advises the ordinary hemostatics besides. Very small doses should be given at first, since it may cause injurious results. Iron should not be administered in this condition, but a change of air and bathing are of service. (*La Tribune Médicale*, July 23, 1902.) [M. O.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending August 16, 1902:

SMALLPOX—United States.

			C.	D.
CALIFORNIA:	Los Angeles.	July 26-Aug. 2	..2	
	San Francisco.	July 27-Aug. 3	..6	
COLORADO:	Denver.	July 26-Aug. 2	..1	
DISTRICT OF COLUMBIA:	Washington.	Aug. 2-9.	4	
FLORIDA:	Jacksonville.	Aug. 2-9.	2	
ILLINOIS:	Chicago.	Aug. 2-9.	3	
INDIANA:	Indianapolis.	Aug. 2-9.	2	
IOWA:	Ottumwa.	July 5-Aug. 2. . . .	..8	
KENTUCKY:	Covington.	Aug. 2-9.	3	
MAINE:	Portland.	Aug. 2-9. . . . .	..1	
MASSACHUSETTS:	Boston.	Aug. 2-9. . . . .	..10	1
	Everett.	Aug. 2-9. . . . .	..2	1
	Lowell.	Aug. 2-9. . . . .	..1	1
	Somerville.	Aug. 2-9. . . . .	..6	
MICHIGAN:	Detroit.	Aug. 2-9. . . . .	..2	
MISSOURI:	St. Joseph.	July 26-Aug. 2	..17	
	St. Louis.	Aug. 3-10. . . . .	..4	
MONTANA:	Butte.	July 27-Aug. 3	..1	
NEBRASKA:	Omaha.	Aug. 2-9. . . . .	..3	
NEW HAMPSHIRE	Nashua.	Aug. 1-8. . . . .	..1	
NEW JERSEY:	Elizabeth.	July 5-Aug. 9	..1	
	Hudson county, Jersey City included..	Aug. 3-10 . . . . .	..1	1
NEW YORK:	Newark.	Aug. 2-9. . . . .	..6	3
	New York.	Aug. 2-9. . . . .	..5	2
OHIO:	Cincinnati.	Aug. 1-8. . . . .	..4	
	Cleveland.	Aug. 2-9. . . . .	..42	5
PENNSYLVANIA:	Toledo.	July 26-Aug. 2	..1	
	Altoona.	Aug. 2-9. . . . .	..3	
	Johnstown.	Aug. 4-11. . . . .	..5	
	McKeesport.	Aug. 2-9. . . . .	..3	
	Philadelphia.	Aug. 2-9. . . . .	..4	1
PITTSBURGH:	Pittsburg.	Aug. 2-9. . . . .	..18	5
	Salt Lake City.	July 26-Aug. 2	..2	
UTAH:				

SMALLPOX—Insular.

PHILIPPINE ISLANDS:	Manila.	June 11-21.	2
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SMALLPOX—Foreign.

ARGENTINA:	Buenos Ayres.	May 1-31.	10
AUSTRIA:	Prague.	July 19-26.1
BELGIUM:	Antwerp.	July 19-26. . . . .	..4
BRAZIL:	Pernambuco.	June 1-30.	35
CEYLON:	Colombo.	June 28-July 5	..1
CHINA:	Hongkong.	June 14-July 5	..3
GREAT BRITAIN:	Dundee.	July 12-19. . . . .	..1
	Liverpool.	July 26-Aug. 2	..6
INDIA:	London.	July 12-19. . . . .	..48
	London.	July 19-26. . . . .	..23
ITALY:	Bombay.	July 8-15. . . . .	..3
	Calcutta.	July 5-12. . . . .	..1
NETHERLANDS:	Madras.	July 5-11. . . . .	..1
	Naples.	July 12-26. . . . .	..2
RUSSIA:	Palermo.	July 12-26. . . . .	..11
	Rotterdam.	July 26-Aug. 2	..1
SPAIN:	City of Mexico. . . .	July 19-Aug. 3	..4
	Moscow.	July 12-19. . . . .	..13
URUGUAY:	Odesa.	July 19-26. . . . .	..1
	St. Petersburg.	July 12-19. . . . .	..9
ITALY:	Warsaw.	July 12-19. . . . .	..3
	Corunna.	July 1-31. . . . .	..1
NETHERLANDS:	Valencia.	July 16-31. . . . .	..1
	Montevideo.	June 30-July 7	..21

YELLOW FEVER.

BRAZIL:	Pernambuco.	June 1-30. . . . .	..1
COLOMBIA:	Panama.	July 21-Aug. 4	..10
MEXICO:	Coatzacoalcas.	July 26-Aug. 2	..1
	Merida.	To Aug. 5. . . . .	..7
PROGRESO:	Progreso.	To Aug. 5. . . . .	..3
	Vicinity of Progreso.	July 27. . . . .	..1
Vera Cruz.	Vera Cruz.	July 26-Aug. 9	..33

CHOLERA—Insular.

PHILIPPINE ISLANDS:	Manila.	June 8-21.	277	207
	Provinces.	Mar. 20-Je 21, 1902	5892	4268

CHOLERA—Foreign.

CHINA:	Amoy.	June 7-28,	275	estimated.
EGYPT:	Hongkong.	June 21-July 5	..26	17
	Tientsin.	June 21-30 . . . . .	..222	197
INDIA:	Maucha.	July 15-23. . . . .	..227	162
	Bombay.	July 8-15. . . . .	..2	
JAPAN:	Calcutta.	July 5-12. . . . .	..31	
	Madras.	July 5-11. . . . .	..1	
JAVA:	Nagasaki.	July 12-20. . . . .	..11	9
	Batavia.	June 7-July 5	..92	77

PLAGUE—Insular.

HAWAIIAN ISLANDS:	Honolulu.	July 23.	1
PHILIPPINE ISLANDS:	Manila.	June 3-21.	1

PLAGUE—Foreign.

CHINA:	Hongkong.	June 14-July 5	125	124
INDIA:	Bombay.	July 8-15. . . . .	..22	
	Calcutta.	July 5-12. . . . .	..20	
MADAGASCAR:	Majunga.	June 8-22. . . . .	..37	

LA PRESSE MEDICALE.

March 29, 1902. (No. 26.)

1. Primary Cancer of Both Lips, Independent of Each Other. H. MORESTIN.
2. The Therapeutics of Aspirin. E. GUIHAL.
3. Why Quinine is Given. ALFRED MARTINET.

1.—After briefly reviewing the occurrence of 2 foci of primary cancer simultaneously and independently of one another, Morestin reports the case of a man of 51, with leukoplasmia. On the left side of the upper lip and the right side of the lower lip were two cancerous ulcers. The submaxillary glands on both sides were enlarged. Microscopical examination of bits removed from both tumors confirmed the diagnosis. By a simple plastic operation both carcinomatous masses were removed, the wounds being hidden under flaps. The result has been excellent. Both tumors were primary and independent, their development being favored by the leukoplasmia. [M. O.]

2.—Aspirin, or acetyl-salicylic acid, greatly and permanently lowers temperature in acute rheumatism and phthisis. The same result was noted, though less marked, in arthritis complicating erysipelas. It may be of service in febrile, pulmonary, rheumatic or other affections. The dosage varies from 4 grains to one dram. It is never dangerous except in very large doses. In rheumatism it replaces the salicylates, being more rapid but less effective in influence. [M. O.]

3.—Quinine diminishes the oxidizing power of protoplasm, inhibiting cell motion and is thus antiseptic in effect. Its antipyretic influence is only marked in malaria. It slows the process of nutrition, causes arterial hypertension and nervous exaltation in small doses, arterial hypotension and nervous depression in large doses. Besides, quinine most probably feebly excites muscular contraction, salivary and gastric secretion. [M. O.]

Dicrotism in Typhoid Fever.—At a recent meeting of the Société Médicale des Hôpitaux de Paris, July 11, 1902, Oddo and Audibert made an exhaustive report upon dicrotism in typhoid fever, from the routine examination of 50 patients. It was noted in 68% of the cases, was most frequent in cases of moderate or marked severity, was found early in the disease, either persisted or disappeared, was continued or intermittent, recurred with high temperature and disappeared with defervescence, appeared with moderate pulse tension, from 11 to 13, disappearing with higher or lower tension and was generally present when no cardiac symptoms were found, disappearing as cardiac trouble developed. They conclude that dicrotism in typhoid fever results from the combined influence of cardiac erethism, weakened arterial contractility and vascular hypotension. [M. O.]

Cleidocranial Dysostosis.—This singular congenital malformation in the ossification of the clavicles and skull bones was recently the subject of a lecture by Marie (*La Tribune Médicale*, July 23, 1902), who presented 4 cases and described 2 others, occurring in parents and in their children. The frontal bones are very prominent and are divided by a deep fissure. The other prominences of the skull bones are also very prominent. The fontanelles remain open until the age of 6 or 7 years. Besides, in most cases, the acromial ends of both clavicles are absent or the entire clavicle may be wanting or in 2 pieces. The nose is also sunken. In one case syringomyelia has developed. The cause of this odd hereditary deformity is unknown. [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. Reprints (250) of Original Articles will be furnished gratis to Authors making the request.

The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8.

VOL. X. NO. 9

AUGUST 30, 1902

\$5.00 PER ANNUM

The Water-Supply of Philadelphia.—The problem of supplying large communities with good water deepens in complexity and intricacy in spite of the attention given to it. This is due largely to the great and rapid growth of cities and the tendency to overcrowding. The East Side district of New York City is the most densely populated spot on the globe. The evolution of the common form of water-supply for cities is simple; a settlement, whether a town, manufacturing plant or summer resort, is located on the upper waters of drainage area, the water required is taken from the adjacent stream and the resulting sewage is thrown again into the stream below the settlement. Any water-user below takes the chances of infection and has ordinarily no practical remedy, even if the law nominally protects him. Thousands of communities are suffering from such conditions and yet the inertia of humanity is such that only some catastrophe will awaken a spirit of resistance. Philadelphia bore the evils of a polluted water for nearly a generation, and is now just about to enjoy a better system. The filtration plants that have been installed in this city have been under the supervision of competent sanitary engineers, but, unfortunately, the public has been advised but little as to the details of progress. However, the general run of citizens would be incapable of understanding incomplete engineering operations and, perhaps, the German proverb, that it is a mistake to show a fool an unfinished house, is of wide application. Leaving out of consideration the persons directly responsible to the administration, who would hardly be willing to express anything but favorable criticism, we have some independent information that the work of the Philadelphia plants, although more expensive than was expected, is of excellent quality and will probably deliver a safe water abundantly. They are based on the so-called slow sand-filtration system, but some expedients have been introduced by which the rate of filtration will be greater than in some existing plants. The great bulk of the water will come from the Delaware river, the principal plant being at Torresdale. This will be a marked departure

in one respect, for heretofore the Delaware supply has been but a small portion of the entire quantity. The Schuylkill will continue to furnish some water, especially to territories of considerable elevation. One of these districts, that of Manayunk, has been for a few days receiving the filtered water. It is too soon to look for evidence of the benefit of the change, but we have no doubt that in a few weeks the falling off in the typhoid cases will prove the advantage of the new condition. It is gratifying that, amid the competing interests and in spite of the strong pressure brought by some corporations, the precipitation methods were not adopted. These are not without value, but are unsuited to the conditions prevailing in Philadelphia.

It is not unlikely that, when the filtered water begins to flow to all the built-up portion of the city, there will be found some who will express dissatisfaction with the results, but we think that the improvement in the sanitary conditions will be so marked that the extensive and expensive installation will be justified. In this regard we believe that Philadelphia has builded more wisely than either Boston or New York. The former is arranging for an extensive gathering ground and storage, the latter has already in operation a similar system. Both depend on collecting enormous volumes of surface water, impounding the same and transmitting it by aqueducts without filtration. We regard this as a defective method. Surface waters are always liable to pollution, and it is practically impossible to protect large gathering grounds. It is better to take water near by and filter it efficiently.

The Marine Biological Laboratory at Wood's Holl.—The medical world will hear with interest, and also with satisfaction, that this well-known institution has been transferred to the care of the Carnegie Institute. The trustees of the laboratory, we are informed, have made formal application for aid to the Carnegie Institute, and apparently the easiest and best way has been found to be a formal transfer of the former to the latter. This should insure a safe and ample appropriation for the support of

the marine laboratory and for a great enlargement of its valuable scientific work. It is an evidence also of the practical wisdom of the managers of the Carnegie fund, who thus adopt, as it were, an institution which has long been known for the high character of its scientific work. The object of the laboratory is original research in biology, and its station at Wood's Holl has been for the promotion of this work among marine forms of life especially. All life probably was originally marine. The sea naturally attracts the biologist for the furtherance of his studies.

The Marine Biological Laboratory started in 1881 and had very small beginnings. It has now grown to be quite a "station," with a group of only fairly adequate buildings and a small fleet of launches and row-boats of its own. It needs especially new and improved apparatus, and also new brick buildings to take the place of the wooden ones now in use. With such improvements the laboratory can pursue its work in winter as well as in summer. During the summer season in past years it has been the scene of active and prolific labor in biological science, and we are informed that during the past season representatives from every large institution of learning in America have been present at the lectures and courses. The laboratory has been under the direction of Dr. C. O. Whitman, of Chicago.

It is much to be wished that not only Wood's Holl but other laboratories like it were founded upon good endowments, and were taking their places in the regular curricula of our leading universities. There is no science like biology to teach a man his true place in nature and to take some of the kinks out of his philosophy.

Some Biochemical Twaddle.—Several articles on the laboratory production of vital phenomena have been published lately. We have no desire to underrate the value of studies made according to scientific methods and published for what they are, but some effort should be made to check the recognition of contributions that are mere guesses or pretences. Biochemistry is a very difficult science, and there are but few whose work in it is worth considering, but there is a host of pretenders who, by the dextrous use of words of learned length and thundering sound, secure a factitious reputation. It is not always easy to distinguish between the honest, but misguided, enthusiast and the charlatan.

An article from French sources has been started on its travels lately and will, doubtless, pass through the usual evolution. Having already appeared in a well-known medical journal, it will soon get into one of the weekly digests or monthly magazines

and then dribble into the daily papers, with such changes by "analysis, synthesis and catalysis" as circumstances may occasion or the vividness of the editorial imagination suggest. In this article we are informed of experiments made by dropping a cyanogen compound on films of gelatine. The phenomena resulting are compared to the formation of cells, but it is not asserted that these are in any way reproductions of living cells. The author of the contribution then proceeds to discuss the peculiarities of the cyanides and also the ammonium compounds. We are told that ammonium and cyanogen are most remarkable substances. The former is so much like a nonmetallic element that it might be classified in that group, but it is found to contain two elements, respectively, a solid and a gas, which, wonderful to relate, also exist in albumin. The only other substance—so we are informed—that compares with cyanogen is ammonium, which is also composed of two elements, but behaves like the metals sodium and potassium. The first organic synthesis was obtained with a compound of these two substances. After these somewhat startling statements, which will be likely to cause a professor of chemistry to adjust his glasses and say "do tell," the following flight of philosophy occurs: "It may be that at some period of the earth's history the elements known to modern science were themselves formed by the union of yet simpler bodies, and this process was for some reason favorable to the development of organic life. If this speculation, suggested rather than supported by Dr. Leduc's experiment, turns out to be well founded, the homunculus of Paracelsus, although it may never come to us in visible form, yet may not be such an impossible dream after all."

All this is to us very painful. There is nothing remarkable about the status of cyanogen and ammonium. They are merely two out of many groups of elements, impressing more or less chemical character upon the compounds into which they enter. The comparatively early discovery of them has given them undue prominence. It is greatly to be regretted that scientific recognition should be given to such errors. The experiment of Leduc (dropping the cyanogen compound on gelatine film) is not novel in type. A great many similar experiments have been made, and there is no reason to regard the one in question as having brought us any nearer to the solution of the problem of cell-formation, while the allusion to the homunculus shows the unscientific interpretation to which the superficial knowledge leads.

Pure Verbal Deafness.—A most interesting case of this rare affection is reported by van Gehuchten

and Goris in the *Journal of Mental Pathology* for June. Pure verbal deafness is an affection in which the power to understand spoken language is lost, and the patient, of course, also loses the ability to repeat spoken language and to write on dictation. But spontaneous speech is not lost, nor the ability to write spontaneously and to read what is written. In other words, the affection is due to a lesion of the auditory center for language, and this center is believed on very good evidence to be located in the temporal lobe.

In the case reported by van Gehuchten and Goris the patient was suffering with symptoms of cerebral abscess due to suppurative otitis media. He presented a very pure type of verbal deafness—inability to understand what was said to him, and inability to repeat what was said. His hearing for ordinary sounds was normal on the right or unaffected side, and he could talk spontaneously and write. The patient was trephined, and a large abscess in the temporal lobe was evacuated. In due time the man entirely recovered. The case, unfortunately, has no marked localizing value, for the obvious reason that accurate studies could not be made of the brain area involved.

Van Gehuchten and Goris discuss the whole subject in a highly instructive way. They claim that there are only six cases of pure verbal deafness recorded in medical literature. Unfortunately these six cases have led to much controversy and diversity of conclusions. The moot points are with respect to the pureness of the verbal deafness and, secondly, the location of the lesion. The subject is obscured by too much theorizing and too many fine-spun distinctions. For instance, much time has been wasted over the question whether the lesion is cortical or subcortical. The case here referred to proves probably that it may be *both*. It also proves, contrary to Dèjerine, that the lesion is not necessarily bilateral. Paraphasia, or confusion of speech, and peragraphia, or confusion of writing, may occur simply as consequences of pure verbal deafness, and do not seem to call for the exercise of such transcendent localizing genius as has been devoted to them.

A New Disease in Bitter Root Valley.—A rather strange story comes out of the West to the effect that there is a new so-called "spotted fever" prevailing in a limited region in Montana. Surgeon J. O. Cobb, of the Marine-Hospital Service, was sent to investigate it and has published his report in the *Public Health Reports*.

Dr. Cobb says that the disease has been known in the Bitter Root Valley for about 17 years. It

has been confined to the whites and has always been limited to the spring months. It is an inoculable affection and depends upon an intracorporal parasite which resembles very closely the organism of Texas cattle fever. Dr. Cobb believes that, just as in the Texas disease, the organism is introduced by the tick. The disease has a very high mortality and was being investigated by Drs. Wilson and Chowning, of the University of Minnesota, before Dr. Cobb arrived.

The new disease is confined to a very limited area and, very curiously, to only one side of the valley. Cobb believes the tick becomes inoculated from some animal, and agrees with Wilson and Chowning that this may be the gopher, or ground squirrel. This animal will not cross water except in very unusual circumstances, and it is infested with ticks. This might account for the prevalence of the affection on one side of the valley, for the valley is traversed by a stream.

Clinically the disease is very odd. There is a peculiar rash, hence the name. Whether this is caused by the tick-bites is not stated. The conjunctivæ are injected and the skin is puffy. Dr. Cobb does not give details as to pulse and temperature and refers his readers to the more elaborate report of Wilson and Chowning.

Sex and Humbug.—The death of Professor Schenk, of Vienna, serves to recall to mind his theory about the control of sex at will. The theory never had any scientific value, or even much scientific interest, for it was too crude and transparent to interest any one except a newspaper reporter. The incident was practically closed with Schenk's enforced retirement from his professorial chair. The authorities could not tolerate his charlatanry, and gave us here in America an example of what college professors should expect when they try to exploit themselves by advancing sensational opinions. America is supposed to be particularly the field for such professorial faddists; and, in truth, we have a large number of them. But they are not unknown in Europe—as the meteoric course of Professor Schenk demonstrated. His fate was well deserved, and yet it excites our commiseration. Perhaps he was more honest in his mistaken opinions than he was given credit for being. At any rate, he adhered to them in adversity and died proclaiming them.

The Surgical Treatment of Typhoid Fever.—The report in our issue for August 16 of a case of enterostomy, performed in the treatment of typhoid fever with intestinal hemorrhage, has called attention to other recent radical operations in typhoid fever. Dr. Edwin Ricketts (*New York Lancet*, January, 1900)

believes that a surgeon should be associated with the attending physician in every complicated case of typhoid fever. Should intestinal hemorrhage occur, he advises exploratory laparotomy with excision of the bleeding ulcers, when found. Should these be multiple, he resects the affected portion of the intestine, performing entero-anastomosis with the Murphy button. Dr. Ricketts' article does not, however, give the case-histories of any patients treated by these operations.

Typhoid Fever in Chicago.—For the week ending August 16, Chicago had 45 deaths reported from typhoid fever—the largest number reported since daily records of deaths have been kept in the bureau of vital statistics. The health authorities attribute the prevalence of typhoid fever in Chicago to increased water pollution. Unusual oscillations of the lake have occurred. Between thirty and forty well-marked fluctuations have been observed since May 1—the range having been as much as between six and seven feet. These oscillations serve to “milk the river out into the lake” and are doubtless the cause of a greater degree of impurity in the water of the lake from which Chicago takes its drinking supply.

In spite of these unsanitary conditions, Chicago still claims an extraordinarily low death-rate—14.64. But this low death-rate, we presume, is based on Chicago's own estimate of the size of her population, not upon the purity of her water-supply. The latter is a negligible quantity so long as the “census” is properly kept up.

Pensions.—Before his retirement, Commissioner Evans of the Pension Bureau made some suggestions for the improvement of the medical service of that most important branch of the government. He wished to institute traveling medical examining boards, which would not be affected by local interests. It would seem that the greatest care is necessary to prevent abuse. According to Bradstreet's, the pension roll at the end of the fiscal year before the last one included 4206 more names than at the beginning. There were 907,735 names on the list. 44,225 new pensioners were added and 3,567 were renewed. 43,586 names were dropped, 38,152 of them because of death. The war with Spain added 5,604 names in one year. The total sum of money distributed was \$131,568,216.

As it is now more than 37 years since the end of the Civil War, these figures are truly astonishing. They are still more astonishing when we hear some of our public orators boasting that, unlike the European nations, we are free from the expense of a large standing army. The truth is that we are support-

ing an immense standing army of pensioners, and for some of the abuses of the system a lax method of medical examination is doubtless responsible.

Koch in “Figaro.”—Professor Koch has, according to report, illuminated the pages of the Paris *Figaro* with a statement of his views on tuberculosis. He says of Garnault, who recently inoculated himself with bovine tubercle, that “his proper sphere of activity would have been in America.” Perhaps if Koch's own “sphere of activity” had been in America he would not have appropriated American ideas without giving credit for them.

Koch confides to *Figaro* that he never said some things he is accused of having said, and reiterates his disbelief in infection with bovine tuberculosis through milk. He considers it foolish and extravagant to compel the world to sacrifice millions every year for useless preventives. “Would it not be better,” he asks, “to erect sanatoriums with this money?”

The *Public Health Reports* contain a statement that the British bark *Birnam Wood*, from Rio de Janeiro, anchored off the coast of Maine on August 3, flying signals of distress. She was found to have yellow fever on board; ten of her men had contracted the disease, and three had died. This is the furthest north that yellow fever has come this year, so far as we have heard.

Plague continues to be reported in San Francisco. There were five cases in July and one case in August. The Marine-Hospital Service reports these cases, but makes no comment. Neither shall we just as present.

Current Comment.

A CRITICISM.

There are a few American men of science who have admirable command of the language they write, but the men with the exceptional powers of expression are rarer and the average is lower than in France or in Great Britain. The treatment of science in the newspapers and magazines is also less satisfactory here than abroad. Articles of excellent quality are often published, but fads and charlatanism are exploited with equal apparent authority, and the reader must become entirely bewildered, having no means of discriminating one alleged scientific article from another, and the entire scientific miscellany is given about the same attention and credence as the columns devoted to the gossip from Saratoga. Some newspapers and magazines are better than others, but there appears not to be a single one of them that submits its scientific contributions to an expert.

Hence, while the literary taste of the community is mediocre, its scientific sense is practically nonexistent.

—*Popular Science Monthly.*

AN OUTRAGE.

We have received from Wilkesbarre authoritative confirmation of an almost incredible report that a mob of strikers had assaulted a physician for the crime of attempting to dress the wounds of another of its victims—whose offense, in turn, had been his accepting as boarders a group of strike-breakers. The physician in question—for whose reliability our correspondent vouches—states that he was seized by the mob, had his clothes torn, and was roughly handled generally. The man whom he attempted to relieve had been brutally beaten. Such outrages as these, no matter how much they may be frowned upon officially by the strikers' organization, must and should turn public sentiment against it. An organization that claims rights must perform duties, and it is the duty of the union to prevent such outlawry on the part of its members.

—*The Outlook.*

Correspondence.

THE DELIVERY OF THE PLACENTA.

By A. A. ARMSTRONG, M. D., of Fair Haven, N. J.

To the Editor of the *Philadelphia Medical Journal*:

Physicians who have attended successfully a thousand or more cases of childbirth, and have from experience become less concerned about the delivery of the placenta than any other part of labor, are doubtless surprised at some of the things in Dr. Holmes' article on The Normal Third Stage of Labor.

Is it not a fact that, in nearly all of the millions of births, physicians, after the birth of the child, when the cord is tied and cut, busy themselves with something until the contractions for the expulsion of the placenta are established, from 10 to 30 min., and then make gentle traction on the cord and gentle pressure on the fundus, and deliver the placenta in a minute or two?

I doubt not but that physicians of large experience have noted the fact that, immediately after the placenta leaves the uterus, the latter shuts down like a vise upon the aftercoming membranes, and that to continue traction means to leave a part of the membranes in the cervix, and have learned to wait a minute until relaxation allows the membranes to follow in their entirety. And if a small piece is retained, if strict asepsis or antisepsis is observed, there can be no infection. I must confess that a rise of temperature does not occur in my obstetrical cases, not even in difficult forceps cases.

I cannot understand Dr. Holmes' reasons for a second ligature of the cord. Twenty years ago, when at college, they taught us to put on two ligatures, but the only reason advanced was that there might be a second child attached to the same placenta. But in a moment one can tell if there is another child in the uterus, and experience has demonstrated that, to cut the cord without tying the placental side, allows a large amount of blood to escape thereby diminishing the size of the placenta and facilitating its delivery.

Dr. Holmes' theory, that the lower segment of the uterus has but a passive role, would seem to indicate that he has never encountered one of those cases of podalic version in which the cervix grasps the wrist with the grip of a giant's hand. I have had one extreme case in which first one hand and then the other would become as helpless as if paralyzed before the feet could be grasped, the contractions of the os being terrific, though it had been well dilated.

At last, by a quick effort, I got the feet, after numerous futile attempts, before a contraction came on and delivered a shoulder presentation.

In nearly a thousand births I have never had any very serious hemorrhages excepting one case of placenta previa (and another in consultation) in which, though the woman lived, I deserved little credit, for, when I removed the pancake which the pounding had made of the placenta when I first saw her, and applied forceps, the bleeding had entirely ceased. I never saw such an exsanguinated person live.

I have lost but one mother and that after a bad craniotomy case, 14 years ago, operated upon by another surgeon; in which case to-day Cesarean section would be performed.

After an experience of nearly 20 years it seems to me that, if proper precautions are taken to prevent infection, the delivery of the placenta need give us little concern.

Reviews.

Principles of Sanitary Science and the Public Health.

By William T. Sedgwick, Ph. D., 8vo. 362 pages and index. The Macmillan Company, New York.

Every person interested in sanitary science will open this volume with pleasurable anticipations. Dr. Sedgwick has been so long and so well-known as a worker as well as a teacher in this field that a comprehensive work by him cannot fail to be of high value. Nor does the examination of the volume disappoint us, though we confess to have been mistaken in the preconceived notions as to the exact nature of it. The author early informs us that he is writing upon the "principles," not the practice of hygiene and hence we have much historical and general scientific matter. We do not read far before we see the influences under which the book has been produced. It is distinctly Bostonese. If the title-page and all other outward visible signs were missing, we should still, by the inward spiritual quality of the text, be able to determine its origin as surely as a German theologian can detect a Jahvistic phrase. We are, of course, in no manner surprised by the extent to which illustrative cases are drawn from New England sources. As the author states, his experience is so largely in that particular section that he is best qualified to speak of such instances, but the wealth of allusions to general literature, extending from the long quotation from the One-Hoss Shay to the discussion of the tenability of Charles Lamb's theory of the origin of roast-pig, testifies to the character of the environment of the author.

We need not say that we have no objection to the principles laid down nor to the applications made of them. We are, however, not ready to accept all Dr. Sedgwick's views. Possibly the community in which he has labored and from which, therefore, he naturally derives his notions of the relations of modern hygiene to the public, shows a greater appreciation of the laws and principles of sanitation, but such conditions are exceptionable. To make the meaning more clear we will quote at some length (page 117).

"From what has now been said, it is easy to perceive the modern philosophy of cleanliness. Dirt is dangerous, not because it is 'of the earth, earthy,' but because it is too often 'drit' or excrement, and the love of cleanliness or abhorrence of dirt which is gradually becoming established in all highly civilized peoples, is doubtless a resultant of dearly bought experience of the race, which has shown that dirt is dangerous and therefore to be dreaded." We are tempted to ask if this is sound reasoning. Has the instinct of cleanliness developed so much or is even now actively developing among civilized people? It may be so in Boston, but it is not so elsewhere. One has merely to observe the conduct of the general run of persons to see that no satisfactory progress to true cleanliness has been made in civilized countries. Everywhere we encounter men, who belong to the conventional class of "gentlemen," who do not hesitate to spit on the floor of cars and boats and even on the carpet of a parlor car. Everywhere we encounter men of good position smoking to the annoy-

ance of others, and chewing a filthy weed. Everywhere we encounter women, who belong to the conventional class of "ladies," dragging their skirts in the filth and dirt of the pavements and streets, or leading along public places dogs, that carry on their well-known objectionable practices every few hundred yards. An attempt has been made to secure a certain degree of cleanliness in public places by an appeal to the fears of the people. The claim that spitting on the sidewalk and on the floor of conveyances distributes tuberculosis rests on no clinical evidence. The only objection that can be made to the habit is that it is offensive to a class of individuals. Dr. Sedgwick makes a strong condemnation of the public drinking-cup, and advocates a form of public hydrant in which the water is caught from a stream from a faucet. This he says will clean itself. The public drinking cup can, however, be as easily and thoroughly cleaned, by rinsing it inside and outside and especially on the edges with running water, and it is probable that, in the long run, these cups are as clean as the table accessories used at high class restaurants. A much more objectionable feature is the custom of rinsing cups and glasses by simply swirling them in a trough of standing water.

The student of sanitary science will find in this book a large amount of trustworthy information, expressed in clear and not too technical language and embodied in a pleasing style, though, as noted above, rather more ornate and discursive than is usual with scientific books. This attribute rarely fails, and we are, therefore, not much surprised to find in an excellent article on milk that the "maiden all forlorn and the cow with the crumpled horn" are not forgotten. Concerning this chapter on milk, we wish to express our satisfaction that Dr. Sedgwick has put the mere chemical questions (such as watering and skimming) into the background and pointed out vividly the dangers from improper methods of handling.

The book contains a few illustrations and is well printed. It will be a valuable addition to the literature of the subject. [H. L.]

On the Influence of Chronic Alcoholism on the Development of the Organism and the Brain.—Livanoff (*Russki Archiv Patologii, Klinicheskoy Meditsiny i Bakteriologii*, Vol. XIII. No. 2) instituted a number of experiments on rabbits with a view of determining the effect of chronic alcohol poisoning on the development of the organism. For this purpose young and mature animals were regularly treated with small doses of dilute alcohol administered by the mouth, the conditions of chronic alcoholism in man being thus more or less approximated. As a result of these experiments, the author arrives at the following conclusions. (1) The development of the organism and the brain is inhibited in chronic alcoholism. (2) Alcoholism in the young acts more deleteriously on the development of the organism. (3) The development of the weight is diminished from 35% to 60%, the diminution being greater in those which received the alcohol earlier. (4) The internal organs are diminished both in weight and size from 25% to 35%. (5) The spleen is increased 30% both in size and weight. (6) The growth of the bones in length is decreased. (7) The development of the bones in thickness is decreased 18%, the effect being most marked in early alcoholism. (10) The total mass of the brain is diminished from 10 to 20%, the effect being more marked in early alcoholism. (11) The size of the brain is decreased in all directions from 8% to 20%, the anteroposterior diameter suffering most. (12) In young animals, 2 cc. of 95% alcohol per kilo weight is sufficient to induce chronic alcoholism. (13) Chronic alcoholism produces atrophic changes in the coverings of the body and the muscular system. (14) The diminution of the weight from 30% to 60% is due largely to the atrophy. [A. R.]

Three Cases of Gaseous Gangrene with Recovery. Louis Ferraton reports in detail the case-histories of 3 men with gaseous gangrene localized in the arm, leg and neck, following gunshot wounds. In those patients in whom the arm or leg was affected, amputation was performed. The Arab whose neck became gangrenous was treated with dressings and injections of a 1-20 carbolic acid solution. In the 3 cases the gangrene was gaseous, and all recovered. (*Archives de Médecine et de Pharmacie Militaires*, July, 1902.) [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Hospital.—Of the 3 new buildings now under construction, the Maternity Hospital, to cost \$10,000, will be the first completed, as it is expected that the work will be finished next week. The other 2 buildings, the Children's Hospital and the Hospital for Contagious Skin Diseases, each to cost \$33,000, will not be finished for from 4 to 6 weeks.

Typhoid Fever in Philadelphia.—The statement that an epidemic of typhoid fever had appeared in the Italian and Jewish quarters, in the southern section of the city, has been contradicted by Dr. J. H. Taylor, chief medical inspector of the Board of Health. A number of cases of typhoid fever, however, have occurred in Roxborough and Manayunk. The health report for the week ending August 23 gives 56 new cases during the week, with 10 deaths from typhoid fever.

Duty on a Mummy.—The federal authorities stated that the mummy which arrived last March at the port of Philadelphia should be assessed at the rate of 20%. The importer of the mummy, however, declared it was not dutiable, since it is not an article of manufacture. Moreover, it is entitled to free entry as a skeleton, or anatomical preparation. The collector of the port of Philadelphia has charged a duty of 20% upon the assessed valuation of the mummy.

Berks County Medical Society.—At the summer meeting, held at the Neversink Mountain Hotel, Reading, August 12, Dr. A. O. J. Kelly, of Philadelphia, read a paper on nephritis.

Death of Dr. Hendrickson.—Dr. W. F. Hendrickson, instructor in pathology in the University of Pennsylvania, died at the Union Protestant Infirmary, Baltimore, August 21, aged 26 years. Dr. Hendrickson was graduated at Johns Hopkins University in 1896. He then studied medicine at Johns Hopkins University Medical School, taking his degree in 1900. Soon after graduation he accepted the instructorship at the University of Pennsylvania Medical School, which position he ably filled until he became ill in June last. After an attack of pneumonia, he went to Saranac Lake, N. Y. Meningitis developed, and early in August he was taken to Baltimore seriously ill.

NEW ENGLAND.

Wood's Holl Biological School.—The present Biological School at Wood's Holl is to be much enlarged and so developed that in construction, equipment and endowment it will be the finest biological laboratory in the world. A large sum has been set aside for this, out of the \$10,000,000 recently given to found the Carnegie Institute in Washington, D. C. Heretofore this school has been maintained largely by the University of Chicago. The new buildings to be erected will contain the most delicate instruments and every appliance that can aid the scientists in their work. It is hoped that some remarkable biological discoveries will result.

Yellow Fever at St. John, N. B.—On the bark *Birnam Wood*, which arrived from Rio de Janeiro, August 5, several cases of yellow fever developed during the voyage. Three of the crew died and 8 cases are now under the care of the quarantine authorities at Partridge.

Hospital Bequests.—By the will of the late Joseph B. Glover \$237,000 are given outright to various charitable institutions and \$100,000 are left in trust for benevolent purposes. In addition to this, the Perkins Institution for the Blind receives \$100,000; \$5,000 each are left to the McLean Asylum, Boston Lying-in Hospital, Eye and Ear Infirmary and Massachusetts Homeopathic Hospital.

WESTERN STATES.

Illinois State Board of Health.—Copies of a schedule of the minimum requirements adopted by the State Board of Illinois, July 8, 1902, have been sent to every medical college in the United States and Canada. This schedule contains the rules and regulations for medical colleges to be determined in "good standing" by the Illinois State Board of Health. These requirements will be enforced on and after January 1, 1903. They set a comparatively high standard. The Board has also recommended the system.

atic examination of the vision and hearing of school children in all schools of the State.

The Plague in San Francisco.—Since the occurrence of the plague in March, 1900, up to August 17, 1902, 64 Chinamen have died from bubonic plague in San Francisco, the disease in every case having been confirmed by bacteriological examination made post mortem. Several other cases recovered and others, almost typical clinically, did not show plague bacilli after death. Five of these cases occurred during July and two in August.

Smallpox in Akron, O.—For two months the disease has been prevalent at Cuyahoga Falls, just outside of the city. It was for a long time taken to be chickenpox, the correct diagnosis only having recently been made. No deaths occurred. As the whole town has been exposed to infection, isolation, fumigation and vaccination are now in progress.

Mosquitoes and Colors.—W. G. Sackett, a graduate of the University of Chicago, has recently undertaken a number of investigations upon the preference of mosquitoes for certain colors. He has found, so far, that red and black attract great quantities of mosquitoes. This, however, seems to contradict the old notion that a piece of red ribbon across the window sill is more effective in keeping out mosquitoes than are screens. In his investigations he has used the *Culex* mosquito. It is remarkable that no mosquito alights upon yellow. He therefore draws the conclusion that houses should be painted yellow and that yellow clothes should be worn, to keep free from mosquitoes.

Typhoid Fever in Chicago.—The Health Department recently made the statement that 40% more typhoid fever existed in the city of Chicago during July, 1902, than there was a year ago. Directions upon how best to avoid typhoid fever have been scattered throughout the city. The disease has, however, been mild in character. Typhoid fever is also prevalent in Milwaukee, Wis., more than 60 cases having been reported in one week. In both cities the drinking-water probably spreads the disease.

The Dryness of Southern California.—It is said that in some localities in Southern California no man can live over ten hours without drink, the dryness of the atmosphere causing the liquids of the body to evaporate so quickly.

Smallpox at Chicago.—The *Huron City*, a large lumber boat, reached Chicago August 19, from the Michigan Pine Forest, with smallpox on board. The boat was kept in quarantine and the cargo will probably be burned. It has been supposed that the lumber carries smallpox germs from the infected camp.

Disease Spread by Squirrels.—In a recent U. S. P. H. and M.-H. Report, Dr. J. O. Cobb, who investigated the disease called spotted fever, prevailing in the Bitter Root Valley, Mont., found that the disease was caused by the bite of a tick. These ticks are parasites upon the ground squirrel, and the spread of the disease has been traced to the section of the country infested with ground squirrels.

An Epidemic of Beriberi.—The Peruvian bark *Santa Rosa* reached Port Townsend, Cal., from Colombia, with most of the crew sick with beriberi. This disease broke out soon after leaving San Buenaventura, and, when the vessel was 20 days out, 3 sailors died. Others became ill, and 3 weeks ago the captain, one man and a boy were the only persons on board unaffected. The trip from San Buenaventura took 73 days. The sick men were sent to the Marine-Hospital at Port Townsend and the bark was ordered to the Diamond Point quarantine station for disinfection.

Bequests.—By the will of the late Senator James McMillan, \$60,000 were left to Grace Hospital, Detroit, and \$1000 to each of the following institutions: Home for the Friendless, Woman's Hospital, Children's Free Hospital and Little Sisters of the Poor.

SOUTHERN STATES.

Navy Medical School.—Plans are now under consideration for the establishment of a school for the special training of newly appointed assistant surgeons, before they are assigned to active service. The medical school will be an adjunct of the new naval hospital on the site of the Naval Observatory, Georgetown, D. C. Several months of special instruction in keeping ship's medical journals, bacteriological and other laboratory work will be given.

Johns Hopkins Hospital.—Dr. Howard Kelly, of Balti-

more, has given \$10,000 toward an addition to the public gynecological ward of the Johns Hopkins Hospital.

Medicine for Trainmen.—Employees of the Norfolk and Western Railroad are soon to be given sufficient instruction to make them competent to give first aid to the wounded and injured in wrecks. Engineers, firemen, conductors and brakemen are to be taught rudimentary surgery. Besides, passenger and freight trains will in the future carry a medicine chest to contain not only drugs, but splints, cotton, bandages, etc.

Knoxville City Hospital.—Mr. H. K. McHarg, of New York, has recently given \$25,000 to the Knoxville City Hospital, Knoxville, Tenn.

Pasteur Institute, Baltimore.—Three hundred and twenty-two cases came under treatment for rabies at the Pasteur Institute in the City Hospital, up to June, 1902. Two hundred and nine of these had been bitten by animals which were proved to have been mad. Yet but one died of rabies. Eighty-one of these patients came from Maryland; 242 were males and 114 were children under 10.

Smallpox in Virginia.—It is said that a serious outbreak of smallpox has occurred at the mines at Wise County, Va., although the companies operating there have tried to conceal this fact from the public. Many have died from the disease and have been buried secretly.

Typhoid Fever in Washington, D. C.—During July there occurred 31 deaths from typhoid fever and 16 deaths during the first 15 days of August. Since the beginning of the epidemic 272 cases have been reported. There are also still a few cases of scarlet fever and diphtheria under treatment in Washington.

Typhoid Fever in Baltimore.—Typhoid fever has been increasing in Baltimore, 68 new cases having been reported for the week ending August 23, as compared with 43 for the previous week and 41 for the corresponding week in 1901. There were, however, but 6 deaths from the disease during the week. The total death-rate for the last week was 188, less than for the corresponding week in the 2 previous years. Very few of the other infectious diseases were reported last week.

MISCELLANY.

The Cholera in Egypt.—In the second week of July news reached Cairo that some suspicious cases of cholera had occurred in a village near Moucha. The Egyptian sanitary officer found the cases clinical typical. On account of the ignorance and apathy of the natives, it was impossible to make much headway against the disease. They were, therefore, driven to work or expelled from the neighborhood. It was found that the disease had been imported by 17 pilgrims who had recently returned from Mecca. As there is no running water within miles of Moucha, the inhabitants of the village drink from a large and filthy well, into which sewage drains. This was probably infected by the returning pilgrims. It is a curious fact that the bacteriological reports on the first specimens sent to Cairo for examination were all negative. On the spot, however, bacilli were found in fresh specimens. Four days after the first cases appeared in Moucha, a case of cholera was found in Cairo, in a man who had come from Moucha. The number of cases then rapidly increased in Cairo during the following 3 weeks, but, owing to the excellent sanitation and disinfection, the outbreak was under control by this time. Yet there is no doubt that many cases will persist on account of the filthy habits of the natives.

Smallpox in Barbadoes.—Since July 13, 1876 cases of smallpox have occurred at Barbadoes. It is reported that the bodies of the dead are being thrown into the sea.

Cholera in the Philippines.—Official statistics up to August 24 show a total of 25,664 cases with 18,040 deaths, though it is conceded that the actual number of cases and deaths is greatly in excess of this number. The situation in the provinces varies greatly, the mortality in some increasing constantly. Between June 25 and July 10, 72 deaths occurred among enlisted men, 35 of them being due to cholera. Binan, in the province of Tagana, has suffered more than any other town, in proportion to its population. The average death-rate is 65.81 per 1000. Smallpox has also appeared at Apari, in northern Luzon, 11 deaths having occurred out of 1000 cases.

Plague in India.—A despatch from Simla, August 20, states that the plague mortality is increasing at the rate of 1,000 a week.

Cholera in Russia.—Extensive precautions have been taken by Russian authorities to prevent the spread of cholera, which broke out late in July among Chinese laborers in Inkau. Although the laborers were isolated and a special hospital established, the disease spread rapidly. Railway travelers are subjected to medical examination, the Russian emigrant train service has been suspended and the transport of Chinese by steamer has been prohibited.

Egypt's Cigarette Trade.—Five hundred and thirty-two tons of cigarettes, made of Turkish tobacco, were exported from Egypt in 1901. Germany bought 122 tons of these, India took 49 tons and Great Britain 47 tons.

The Climate of South Africa.—On account of the warm, dry atmosphere of the high ground in the Transvaal, the country in the neighborhood of Johannesburg is expected to become a health resort, especially for a certain class of phthisis cases. English people are already emigrating to South Africa on account of the benefits which they expect to derive from the climate.

Obituary.—Dr. Glenn S. McDowell, at Franklin, Pa., August 20, aged 38 years.—Dr. George A. Bodamer, at Philadelphia, Pa., August 20, aged 43 years.—Dr. W. O. Wilcox, at San Francisco, Cal., August 14, aged 52 years.—Dr. S. L. Foote, at Argentine, Kan., August 20, aged 80 years.—Dr. William Faithful Hendrickson, at Baltimore, Md., August 21, aged 26 years.—Dr. John Henry Longenecker, at Islip, L. I., August 19, aged 80 years.—Dr. George Whitfield Kemper, at Madison Hall, Port Republic, Va., August 19, aged 87 years.—Dr. Thomas Lothrop, at Buffalo, N. Y., August 7, aged 66 years.—Dr. Erasmus D. Beach, at New Orleans, La., August 5, aged 87 years.—Dr. Jesse M. Dalton, at Harrodsburg, Ky., August 4, aged 48 years.—Dr. J. A. S. Brunelle, at Mountain View, N. Y., August 7, aged 50 years.—Dr. Charles D. Frick, at Kansas City, Mo., August 7, aged 32 years.—Dr. Peter D. Walsh, at Boston, Mass., August 10, aged 79 years.—Dr. William H. Heist, at Townsend, N. Y., August 7, aged 59 years.—Dr. Lucius J. Dixon, at Milton, Vt., August 8.—Dr. Lyddall W. Twyman, at Independence, Mo., August 5, aged 77 years.—Dr. James A. Pratt, at Minneapolis, Minn., August 9.—Dr. Edward V. Branham, at Oxford, Ga., August 10, aged 58 years.

GREAT BRITAIN, ETC.

The King's Sanatorium.—It has been rumored that a site near Midhurst, Sussex, has been chosen for the King's Sanatorium for consumptives. Midhurst stands on a range of high hills about 700 feet above the sea level. Though the site is difficult of access, it may be approached by 5 different routes. It is said that a plot of 120 acres has been selected for this purpose in a forest of pine trees. The scenery is magnificent, including a number of views of the Rother river. The purchase of the ground, however, has not yet been completed.

Blackwater Fever.—In a British Foreign Office report on German East Africa, recently issued, it is stated that quinine is undoubtedly the cause of blackwater fever, but certain conditions must prevail before it will occur. Quinine is therefore used with much caution in the treatment of malaria, and a great reduction in the cases of blackwater fever and the deaths therefrom is now noticeable.

CONTINENTAL EUROPE.

Frankfort Post-Graduate Medical School.—It has been announced that a post-graduate medical school will soon be established at Frankfort-on-the-Main, after an American model. The sum of \$500,000 has been given by one individual for the establishment of the school.

Bacteriological Institute.—It is announced that Mr. W. T. Simin has given \$50,000 to the University of Tomsk, Russia, for the foundation and endowment of a bacteriological institute.

A Rat Plague in Lisbon.—It is announced that the Portuguese capital is infested with rats of great size, against which cats seem powerless. Poison and traps are equally futile. The city physicians have inoculated a number of rats with an infectious disease, to which human beings are insusceptible. In this manner it is hoped to kill off most of the rats.

Obituary.—The death of Dr. Heinrich Reineboth, professor of medicine at the University of Halle, occurred recently. He was 35 years old.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

August 9, 1902.

1. Introductory Address in the Section of Obstetrics and Gynecology. D. LLOYD ROBERTS.
2. Section of Public Medicine. A Discussion on the Precise Part Played by Vaccination. E. W. HOPE, E. C. SEATON, E. J. EDWARDS, JOHN GORNALL, J. T. C. NASH, C. R. DRYSDALE and T. D. ACLAND.
 - 1.—Roberts, in his address on obstetrics and gynecology at the annual meeting of the British Medical Association, gave a short biographical review of the men who founded the Manchester School of Obstetrics and Gynecology. [W. A. N. D.]
 - 2.—Will be abstracted when concluded.

THE LANCET.

August 9, 1902.

1. Address in Obstetrics; Carcinoma in Women, Chiefly in its Clinical Aspects. WM. JAPP SINCLAIR.
2. On the Acetone Series of Products in Connection with Diabetic Coma. F. W. PAVY.
3. Myoma of the Vagina. W. ROGER WILLIAMS.
4. A Case of Saddle-Nose Treated with Subcutaneous Injection of Paraffine. A. J. MARTINEAU.
5. The Diagnosis and Treatment of Malignant Stricture of the Esophagus. CHARTERS J. SYMONDS.
6. On Pancreatic Calculus. With Notes of a Case. B. G. A. MOYNIHAN.
7. Hypoplasia of the Aorta as a Cause of Aneurysm. W. LEE DICKINSON.
8. A Peculiar Case of Scarlatina Hemorrhagica. VIVIAN CHASTEL DE BOINVILLE.
9. Verbal Obsessions. JAMES SHAW.

1.—See abstract of *British Medical Journal* in *Philadelphia Medical Journal*, August 23, 1902.

2.—Pavy, in discussing the acetone series of products in connection with diabetic coma, shows that the information given by the acetone series is of much prognostic value, and the knowledge they supply in connection with a case furnishes an insight into the future which cannot be obtained by looking solely to the sugar, and that when the acetone series of products are discoverable to a large extent in a case, it may be safely said that life is not likely to last long. He concludes that the testing for diabetic acid is a matter of easy accomplishment, but the value of the information conveyed is not to be compared to that obtained from the quantitative determination of the oxybutyric acid by the agency of copper reduction and the polarimeter. This, however, requires experience and time, but the result may be considered to repay the labor undertaken. A double process is involved. It is possible, however, by fermenting away the sugar to make the polarimeter alone serve for giving the required information. If this is done, confidence has to be placed in oxybutyric acid possessing the power of fully resisting destruction during fermentation, which is doubtful. [F. J. K.]

3.—Williams remarks that cancer of the vagina is rare, sarcoma is rarer still, and myomatous tumors of the vagina are the rarest of all, probably because the vaginal musculature is much thinner than that of the uterus. It is more abundant in the lower part of the vagina, especially anteriorly in the vicinity of the base of the bladder, and it is just here that myomata are more prone to develop. Their frequency is about 3 in 1073 cases; they are nearly always solitary; they are variable sizes, the largest being as large as the fist; they are mostly of intraperitoneal origin, but exceptionally they arise in neighboring tissues; they increase in size slowly and as they grow cause considerable distention of the vagina; they have the same degenerative changes as fibroid tumors of the uterus. The most common degeneration is septic infection. Very rarely they may become sarcomatous. The treatment is excision.

[W. A. N. D.]

4.—Martineau presents photographs of a case of saddle-nose in which he corrected the deformity by the subcutaneous injection of paraffine. The deformity was due to injury which caused an abscess and necrosis of the septum. Ster-

ilized paraffine, with a melting-point of 110° F., was injected through an ordinary antitoxin syringe. The case was well suited for this treatment, as there was no scar tissue and the skin over the depression could be readily lifted up. [J. H. G.]

5.—Symonds presents an interesting discussion of the diagnosis and treatment of malignant stricture of the esophagus. The diagnosis of this condition is summarized as follows: (1) Among the early symptoms we may have dyspepsia, nausea and repulsion for food; pain alone when the central district is affected. (2) The passage of a bougie is the only way to clear up the case and its employment need not be feared. (3) Extra-esophageal disease rarely gives rise to serious dysphagia. (4) Spasmodic obstruction, apart from the hysterical form, has always an organic cause and this would be better called *intermittent dysphagia*. (5) With regard to the 3 especial districts it may be said (a) that all organic obstruction in the upper third is malignant and has a special tendency to citrize; (b) that in the central half of the gullet a sarcoma or a myoma, both rare diseases, may cause fatal obstruction, and (c) that in the lower end alone does simple stenosis occur, and here there may be difficulty in distinguishing it from cancer of the stomach causing great reduction of the cavity (leather-bottle stomach). (6) In estimating the extent of the disease, the special value of the steel bulb is noted and also the use of the Condé bougie in obstruction at the lower end. The following is a summary of the treatment: (1) in cricoid obstruction the long rubber-tube gives excellent results. When not well borne, gastrostomy, if selected, should be performed early. (2) In disease of the central portion the short tube is serviceable in a fair number of cases and when it acts well is superior to any other method. It must be replaced by the long feeding-tube when pulmonary symptoms arise. (3) In disease of the cardiac orifice tubage is so uncertain that gastrostomy should be performed when dysphagia becomes serious. [J. H. G.]

6.—Moynihan, after dealing with the history, symptoms, diagnosis and treatment of pancreatic calculus, reports a very interesting case. The patient was a woman, 57 years old, of a nervous temperament. After a number of months the patient lost considerable weight and had persistent attacks of epigastric pain which closely resembled hepatic colic, though less severe and unattended, until very late in the history, by jaundice which was then but trivial. A peculiar irregular pigmentation of the skin of the color of *café au lait* had developed slowly. The stools were occasionally "frothy" and "greasy." An examination under chloroform revealed an indefinite swelling above the umbilicus extending a little to both sides of the median line. Moynihan made a diagnosis of chronic pancreatitis probably due to a stone in the pancreatic duct. A month later the abdomen was opened. The gall-bladder was found distended, but neither it nor any of the ducts were adherent. The pancreas was enlarged, particularly its head. At the point of entrance into the bowel a small hard tumor could be felt. The duodenum was excised and a stone removed from the lower end of the pancreatic duct. The opening into the duodenum was closed and the gall-bladder drained. The patient made a very satisfactory recovery. The pigmentation of the skin, which was a most marked symptom before operation, had undergone a considerable fading at the end of a month after operation. The stone was about the size of a French bean, an inch and a half in length and about 3/16 of an inch in diameter. [J. H. G.]

7.—Dickinson directs attention to *hypoplasia of the aorta as a cause of aneurysm*. He reports 4 cases in which hypoplasia of the aorta and aneurysm were associated conditions. He states that, out of 2,500 post mortem examinations performed at the St. George's Hospital, only 3 or 4 cases of hypoplasia have been noticed by himself or succeeding pathologists. [F. J. K.]

8.—De Boinville reports a peculiar case of *scarlatina hemorrhagica*, which occurred in a boy, 4½ years of age, who resided at Liverpool. This case represents one of scarlet fever in which there was a profuse toxemia which set in at a time when it was supposed that antitoxin in the ordinary course of events would be forming and the immunity become established. The interesting feature of this case was that hemorrhagic symptoms did not appear at the onset of the disease as in an ordinary case of *scarlatina hemorrhagica*, but at a period when convalescence was to be expect-

ed. The illness terminated fatally, the patient dying in a state of collapse. [F. J. K.]

9.—Shaw contributes an article on *verbal obsessions and reports 2 cases as types of 2 forms in which obsessions are prominent*. He contends that the prognosis as to mental recovery is much less favorable in the aberration almost purely obsessional, than in the seemingly more formidable obsessional melancholia with its blurring of consciousness, greater mental pain and diminution of self control, difficulty of inducing fatigue and presentation of a distinct fixed idea or so-called faith-delusion of having committed an unpardonable sin. [F. J. K.]

MEDICAL RECORD.

August 23, 1902.

1. When and Why Does Labor Begin?
GEORGE P. SHEARS.
2. Some Varieties of Surgical Tuberculosis, with Special Reference to a New Method of Treatment.
L. F. GARRIGUES.
3. Primary Carcinoma of the Vermiform Appendix.
D. S. D. JESSUP.
4. The Venous System of the Temporal Bone and its Relation to the Complications of Mastoid Disease.
SEYMOUR OPPENHEIMER.
5. A Case of Epithelioma of the Margin of the Eyelid Apparently Cured by the Use of a Solution of Adrenalin Chloride.
WILBUR B. MARPLE.
6. Summer Diarrhea in Infants and Young Children.
MARTIN J. SYNNOTT.

1.—Shears presents a discussion of the question, *when and why does labor begin?* His conclusions are as follows: The statement made in many text-books that the cervix maintains its entire length during pregnancy is incorrect. The statement sometimes made that the canal of the cervix remains closed until the beginning of labor is also incorrect. Usually in multiparæ, and occasionally in primiparæ, the canal including the internal os is dilated to the extent of admitting one or two fingers two or three weeks before labor begins. Dilatation of the external or internal os or of the cervical canal is not *per se* an indication of beginning of labor. Dilatation of the clinical internal os or ring of Müller in such a manner that it begins to form part of the uterine cavity is at once the anatomical commencement and the diagnostic sign of true labor. Dilatation at this point is the final result of uterine distension and consequent cervical eversion. Dilatation at this point, owing to the greater resistance offered, by its effect upon the cervical ganglion, and the consequent reflex awakening of effectual uterine contractions, is the physiological cause of labor. [T. L. C.]

2.—Garrigues discusses some varieties of surgical tuberculosis with special reference to a new method of treatment. He is not in favor of the general practice of curetting tuberculous ulcers and abscess cavities on account of the likelihood of infection being spread through the open blood- and lymphspaces during such operation. He advises the application of the *butter of antimony* to the surface of the ulcer, with a second application when the slough separates, which takes about 4 days. He continues the applications until the granulations show a healthy *cherry color* and lays considerable stress on the presence of the *whitest opalescent granulations that bleed easily*, as an index of a tuberculous condition. As long as there are any of these present, the treatment with antimony must be continued, but the moment all granulations are cherry red, all tuberculous tissue, spores and all, have been removed and the wound heals rapidly. [T. L. C.]

3.—Jessup reports a case of *primary carcinoma of the vermiform appendix*. Apart from the rarity of the condition the case was of interest on account of the absence of any symptoms pointing to disease of the appendix. Its discovery was an accidental one during an operation undertaken for disease of the uterine adnexæ. [T. L. C.]

4.—Oppenheimer describes the venous system of the temporal bone and its relation to the complications of mastoid disease. He expresses the belief that, while the majority of the complications of mastoid necrosis are the result of infection through direct destruction of tissue, yet many cases of sinus phlebitis, brain abscess and meningitis, are directly traceable to infection by way of the small venous channels of the temporal bone. [T. L. C.]

MEDICAL NEWS.

August 23, 1902. (Vol. 81, No. 8.)

1. Some Points in the Treatment of Acute Rheumatism. W. H. THOMSON.
2. The Symptomatology and Diagnosis of Acute Articular Rheumatism. LEONARD WEBER.
3. On the Pathogenesis of Acute Articular Rheumatism. HEINRICH STERN.
4. The Complications and Sequelæ of Acute Croupous Pneumonia. H. A. HARE and ARTHUR DARE.

1.—Thomson states that, when the salicylates are used in this disease, he prefers the salicylate of strontium as less depressing and of equal efficiency when given in the same dose. Salicin in 15-20-grain doses especially in the young. In tedious subacute cases it is often advantageous to omit the salicylates altogether and prescribe lemon juice instead.

[T. M. T.]

2.—Weber, in considering the differential diagnosis of acute rheumatism, maintains the following: (1) Acute gonorrheal arthritis, which may be multiple, but is more often monarticular, caused by the gonococcus and staphylococcus. (2) Septic arthritis, puerperal or otherwise, of streptococcus infection, is generally purulent. (3) The secondary multiple arthritis of acute infectious diseases can be easily differentiated. (4) Multiple neuritis concerning the upper and lower limbs, which resembles acute rheumatism. (5) Acute osteomyelitis and necrosis of bone may be multiple and mistaken for the above disease. (6) Gout and acute rheumatism will not be easily confounded.

[T. M. T.]

3.—Stern gives the origin and nature of the rheumatic process. The rheumatic process is possible only on the basis of increased permeability of white fibrous tissue contained in the habitually engaged parts of the motor apparatus, particularly in that of the serous and synovial membranes. The altered permeability, or a predisposition to the same, may antedate the rheumatic involvement or it may be of synchronous or almost synchronous occurrence with the latter. The augmented permeability of this tissue is affected by the calcium salts of the blood which extract the cementing substance from the fibrous texture. Calcic bodies occurring in loose proteid combination in the blood are thrown out, deposited and temporarily retained in the articular tissues where their reactivity is displayed. The precipitation of the calcium salts from the circulating blood must be due to its altered composition, which latter may have arisen through any physical or metabolic disturbance. (The retention of chlorides in the blood and their replacing of the calcium molecule in proteid or other combinations, or otherwise their union with the metal itself, may be one of the causes of the precipitation of calcic substances.) The increased permeability may permit passage of such bodies which diffundate not at all, or with difficulty only through the unaltered membrane. Among the permeating substances we find fibrin, the occurrence of which is dependent upon the presence of calcium salts. The hematic calcium salts aiding in the formation of fibrin very likely are identical with those which effect extraction of the cementing substance. (The extracted material may furnish the third element essential to fibrin production and thus both processes may be of almost simultaneous occurrence.) The passage through the texture and into the synovial tubes, or their analogues, and the temporary retention therein, of abnormal quantities of fluid and salts and voluminous bodies like fibrin—practically a state of disturbed osmotic equilibrium for the time being—is speedily followed by all the usual manifestations of acute articular rheumatism. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

August 23, 1902.

1. Gas Leakage and the Public Health. JAMES C. BAYLES.
2. Clinical Cases of Gas Poisoning. SAMUEL LLOYD.
3. Consultation with Professor Dieulafoy on Appendicitis. EDMUND L. GROS.
4. Gastric Acidity. L. H. WATSON.
5. A Method of Preserving Gross Specimens for Museum and Class Demonstration. W. S. WATTERS.
6. Observations on the Anatomy, Physiology and Pathology of the Normal Sacculi Ani, and on the Etiology, Pathogenesis and Diagnosis of the Abnormal Anorectal Pouches. WILLIAM BODENHAMER.
7. The Treatment of Hemorrhoids by Enucleation. GEORGE B. EVANS.
8. Report of a Case of Successful Removal of a Kidney for Intermittent Hydronephrosis. J. B. BOUCHER.

1.—Illuminating gas, escaping by leakage from the gas mains, generally reaches houses, filtering through the soil. It is then an odorless gas. It is kept down by the impervious pavements and travels in the sewers and conduits. In winter, when houses are kept shut, it reaches a cellar and soon spreads through the house, being commonly called sewer gas. It causes fires and explosions, asphyxiation, and blood poisoning and anemia. Before descending into subterranean conduits, tests for the presence of carbon monoxide should always be made. [M. O.]

2.—Lloyd reports in detail 5 cases of chronic gas poisoning, with odd, unclassifiable symptoms, recovery following with change of air. Some anemia was noted in all cases. [M. O.]

3.—Dieulafoy advises immediate operation in appendicitis, since the patient may die if the surgeon attempts to wait for recovery to operate. [M. O.]

4.—The production of hydrochloric acid in the stomach is probably dependent upon the gastric plexuses. Other acids are also found, resulting from the bacterial fermentation of carbohydrates, being most frequent when HCl is absent. The most frequent forms of gastric acidity found are with Reichmann's disease, gastric ulcer, neurasthenia, mitral disease, interstitial nephritis, liver trouble, hysteria, etc. [M. O.]

5.—Watters gives his method for preserving gross specimens for museum and class demonstration, for which purpose he uses Kaiserling's solutions. [M. O.]

6.—Bodenhamer reviews the literature, especially those cases described and treated by the late Dr. Physick, containing observations upon the normal sacculi ani and abnormal anorectal pouches. [M. O.]

7.—Evans reports in detail 2 cases of hemorrhoids operated upon by enucleation, with recovery in one, and death in the other, from sepsis. [M. O.]

8.—Boucher reports a case of successful removal of a kidney for intermittent hydronephrosis, in a woman of 33. Full details are given. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

August 21, 1902. (Vol. CXLVII, No. 8.)

1. The Preparation of Animal Vaccine. THEOBALD SMITH.
2. Vaccination: The Technique. E. A. DARLING.
3. Vaccinations: Accidents and Untoward Effects. J. H. MCCOLLOM.
4. Smallpox: Its Diagnosis. J. T. BULLARD.

1.—Smith states that there are 3 available sources of vaccine: (1) The virus descended from spontaneous cowpox and continued through an indefinite series of animals—the true animal vaccine. (2) Virus obtained from animals which have been inoculated with lymph from human vaccine pustules, either directly or indirectly, through a series of calves. This is known as retrovaccine. (3) Vaccine obtained by passing smallpox through the cow—the so-called variola vaccine. In concluding his article he says that the vaccine is but one of 3 factors which determine the success or failure of vaccination. The others are a satisfac-

tory inoculation technique and the proper care of the wound afterward. [T. M. T.]

2.—Darling says that the danger may come from the use of impure lymph, from unsuitable conditions of the patient and from infection at the time of operation or during the development of the vesicle. [T. M. T.]

3.—McCollom gives Dr. McFarland's conclusions in regard to tetanus: (1) Tetanus is not a frequent complication of vaccination, a total of 95 cases having been collected. (2) The number of cases recently observed is out of all proportion to what has been observed heretofore. (3) The cases are chiefly American and occur scattered throughout the eastern United States and Canada. (4) They have nothing to do with atmospheric, telluric or seasonal conditions. (5) They occur in small numbers after the use of various viruses. (6) An overwhelming proportion has occurred after the use of a particular virus. (7) The tetanus organism may be present in the virus in small numbers, being derived from the manure and hay. (8) Occasionally the number of bacilli becomes greater than usual through carelessness or accident. (9) The future avoidance of the complication is to be sought for in greater care in the preparation of the vaccine virus. The author emphasizes: (1) That vaccination should be carefully done with aseptic precautions; (2) that the after-treatment of the site of the scarification is very important in preventing cellulitis, erysipelas and tetanus; (3) that vaccination, when carefully done with properly prepared lymph, is a harmless procedure. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

August 23, 1902.

1. Neuralgia of the Bladder. G. FRANK LYDSTON.
2. A Plea for the Early and Correct Diagnosis of Ectopic Pregnancy. HENRY D. INGRAHAM.
3. Cesarean Section Made Necessary by Ventrofixation. WM. M. FINDLEY.
4. Vaginal Section for the Relief of the Uncomplicated Symptom of Sterility. HENRY D. INGRAHAM.
5. The Influence of Prolapse of the Kidney on the Production of Disease of the Female Pelvic Organs. AUGUSTIN H. GOELET.
6. An Operation for Establishing a Cul-de-sac for the Wearing of an Artificial Eye. Report of Cases. JOHN E. WEEKS.
7. The Relative Indications for Enucleation and the Mules Operation. N. J. HEPBURN.
8. Description of a New Anopheles. C. S. LUDLOW.
9. Six Years in a Dermatological Clinic. A Report of Service, etc. E. A. FISCHKIN.

1.—Lydston discusses the causes, symptoms and treatment of cystalgia. Among the causes are mentioned: Lesions of the urinary tract; lesions of the neighboring organs, such as the prostate, rectum, etc.; locomotor ataxia and general paralysis; diathetic conditions such as gout and rheumatism; diseases of the testis and spermatic cord; lead-poisoning and malarial infection. Cystalgia may occur in hysterical and chloranemic patients. Sexual disturbances and abuses may produce cystalgia. In the treatment of this condition the physician should be careful not to treat too radically some lesion of the urinary tract which is out of all proportion to the pain suffered. The true cause should be looked for and removed if possible. The immediate treatment consists in the use of sedatives such as opium, belladonna, etc., and the employment of hot sitz-baths. Predisposing causes such as gout, malaria, general debility require special treatment. [J. H. G.]

2.—See Philadelphia Medical Journal, June 21, 1902, p. 1108.

4.—See Philadelphia Medical Journal, June 21, 1902, p. 1109.

5.—See Philadelphia Medical Journal, June 21, 1902, p. 1109.

6.—Weeks describes an operation for establishing a cul-de-sac for the retention of an artificial eye and reports briefly 5 cases in which it has proved successful. The failure of former operations is due to shrinkage. [J. H. G.]

7.—In considering the indications for enucleation and for the Mules operation, Hepburn concludes that enucleation may be performed for cosmetic purposes for wounds of the globe of considerable extent and for intra-ocular disease with destruction of vision and glaucoma absolutum. It must be performed in cases of sympathetic irritation glaucoma absolutum with much thinning of the ciliary sclerotic, in malignant growths of the eyeball and destructive ophthalmitis. The Mules operation is adapted to cases in which only a cosmetic result is required, in which range of motility is desirable in blind eyes without extensive ciliary involvement, and in which it is desirable to prevent shrinkage of the orbital tissues. [J. H. G.]

8.—Ludlow contributes a description of a new anopheles which is found in the Philippine Islands and to which he has given the name "Anopheles Philippinensis." He gives a detailed description of this insect. It is not known if the plasmodium develops in it or not. [F. J. K.]

9.—Fischkin contributes a report with remarks on the treatment of the more common skin diseases during 6 years of service in the United Hebrew Charities Free Dispensary of Chicago. The total number of cases seen during this period was 2535. Nearly all of the cases belonged to the classes of infectious inflammations or parasitic diseases. The percentage of syphilis among the patients was very low. [F. J. K.]

AMERICAN MEDICINE.

August 23, 1902.

1. Prognosis and Treatment of Chronic Nephritis. DE LANCEY ROCHESTER.
2. On the Influence of the Contents of the Large Intestine Upon Strychnine. WILLIAM SALANT.
3. Are Not Some Deaths During Operation in the Regions Supplied by the Trifacial Nerve Due to Reflex Inhibition of Respiration and of the Heart? WILLIAM HARMAR GOOD.
4. Angina Pectoris. JAY PERKINS.
5. Tuberculosis; Its Transmission and Prevention. HENRY D. HOLTON.
6. The Importance of Proper Temperature in the Administration of Salt Solution; An Accurate Method of Determining Temperature. R. C. COFFEY.
7. Skin Grafting: A New Method. S. T. RUCKER.
8. Essentials of an Adequate System of State Care and Supervision for the Insane. FREDERICK PETERSON.
9. The Pirogoff Museum, St. Petersburg. NICHOLAS SENN.

1.—Rochester discusses the prognosis and treatment of chronic nephritis. The condition of the skin and especially of the sweat glands has a direct bearing on the prognosis, so also has a severe degree of anemia and the sudden development; or the frequent recurrence of uremic attacks is a bad prognostic sign. His plan of treatment has as its basis the improvement in elimination and nutrition. As regards elimination we should not try to stimulate into activity an organ that is inflamed or degenerated by the use of drugs that excite the functional activity of that organ. Selection of the diet is of great importance and he gives milk a prominent place. Systematic exercise must be obtained by massage when active exercise is not advisable. He treats the anemia by oxygen gas inhalations and the administration of iron, when the necessity for this drug has been demonstrated. The bowels are to be kept open by salines or calomel. Particular indications in the course of the disease are met as they arise, and he further describes a method of giving a steam or hot air bath at home. [T. L. C.]

2.—Salant presents a note on the influence of the contents of the large intestine upon strychnine. The series of experiments which he performed leads up apparently

to the very remarkable conclusion that there is something in the contents of the large intestine of normal rabbits which interferes with the detection of strychnine (even 2 mg.) by the method at present in use. A study is now being undertaken to determine how far the contents of the large intestine interferes with the physiological effects of the poison.

[T. L. C.]

3.—Good suggests the possibility that some deaths during operation in the regions supplied by the trifacial nerve may be due to reflex inhibition of respiration and of the heart. Assuming that this is true, he suggests that a practical method of overcoming the reflex consists in distending the lungs by forced inspiration, by mouth to mouth insufflation, or even by using the bellows as is done in experimental work on animals [T. L. C.]

6.—Coffey, recognizing the importance of proper temperature, in the administration of salt solution, has devised an accurate method of determining the temperature. The solution is held in a graduated jar in which is held a stationary thermometer passed through a rubber cork. At the lower extremity near the stop-cock a thermometer is fastened in the center of a glass tube, which allows the solution to surround the bulb of the thermometer. He uses a three-way stop-cock, which serves for more than one purpose. First, in case it is necessary during the administration of an infusion to stop, the cold solution in the tube may be run out through a side-arm until the temperature is brought down to the point desired. Second, in case the solution is too cold, a portion may be run out at the side-arm and the temperature accurately regulated. He has also devised a glass-pitcher with a thermometer attachment for use in determining the temperature of solutions for abdominal flushing. [T. L. C.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

May 6, 1902. (No. 8.)

1. The Prevention of Puerperal Fever: Sixth Communication. H. HOFMEIER.
2. The Value of the Precipitates in the Differential Diagnosis of Albuminous Bodies. ROSTOSKI.
3. Spinal Analgesia and the Distribution of Sensibility According to the Spinal Segments.
F. NEUGEBAUER.
4. A Case of Lung Embolism with Placenta Previa.
J. VOIGT.
5. The Knowledge of Senile Angiomata (Capillaries of the Skin). J. RAFF.
6. A Case of Perforative Peritonitis Cured by Laparotomy.
FEDERSCHMIDT.
7. Perityphilitis and Pregnancy. A. KEILER.
8. Purpura Hemorrhagica and Tuberculosis.
PH. BAUER.
9. Co-operation of Physicians for the Maintenance of Social Rights. MUELLER.
10. Hay Fever. A. THOST.
11. The Relation of the White Bloodcells in Certain Surgical Diseases, Particularly Appendicitis.
M. WASSERMANN.

1.—Hofmeier reports the statistics of the sixth thousand of women delivered at the Obstetrical Clinic at Würzburg. Four hundred and fifty-five were primiparæ and 555 multiparæ. All cases were regarded as febrile in which the temperature reached 38°, even if only once, when taken in the axilla. In 548 of the cases the temperature was also taken with maximum thermometers in the rectum. Altogether 318 patients developed fever, 79 showing moderately high degrees. If only the axillary temperature in the 1000 cases was considered, 164 had once, or oftener, a febrile temperature. In 27 of these the fever could be determined to be due to infection in some portion of the body. In 53 there was no evidence of infection of the genitalia, and in 84 slight evidence, such as tenderness, fetid lochia, etc. In the whole 6000 cases a little over 1070 showed febrile reaction and .66% died. Seven patients died in the sixth thousand, the cause of death being due to eclampsia in 2, pulmonary tuberculosis in one, acute nephritis, possibly due to lysol intoxication, in one, carcinoma of the stomach in one, rupture of the uterus with infection of the peritoneum in one, the rupture having taken place outside the Institute, and general puerperal infection with the gas bacillus in one, infection having probably taken place outside the

Institute. Hofmeier discusses the possible source of infection, particularly the introduction of germs into the genitalia from without and an effort made to exclude this by the use of a bichloride pad over the vulva, in a certain number of cases. No particular benefit was, however, observed. The fact that the proportion of febrile cases was slightly higher than the previous years is probably due to the overcrowding of the Institute. Statistical evidence shows that digital investigation of puerperal women is not so serious a matter as has been supposed. [J. S.]

2.—Rostoski has performed a series of experiments by injecting rabbits with various forms of albumins and globulins. With the serum of a rabbit injected with the globulin he was able to obtain a precipitate with various bodies obtained from the serum of a horse. With the serum of a rabbit into which urine containing Bence-Jones' bodies was injected, he was able to precipitate various bodies obtained from human bloodserum. He therefore concludes that the precipitins are not specific with regard to various forms of albumins and globulins, and cannot be used for differentiation. He notes that precipitin formation is diminished by an alkaline reaction and favored by an acid reaction. It is hindered by concentration of the solution and does not occur in the absence of salts. [J. S.]

3.—Neugebauer has made some interesting observations upon the occurrence of anesthesia after an interspinal injection of cocaine. In one case the anesthesia remained limited to the perineal region. In nearly all cases it commences in this region, then affects the lower parts of the legs and gradually ascends. He concludes that the analgesia usually commences in the region related to the fourth sacral segment and then gradually ascends along the spinal cord. This explains why the analgesia is usually higher posteriorly than anteriorly. [J. S.]

4.—Voigt reports the case of a woman who previously had been delivered by version and extraction, on account of placenta previa. When brought to the hospital she gave a history of being in the eighth month of pregnancy and of having had repeated hemorrhages. Examination showed that placenta previa again existed. After several days it was decided to perform version, which was accomplished with some difficulty and the child delivered alive. Three-quarters of an hour later the patient developed intense dyspnea, went into a state of collapse, and there was every evidence of embolism of the lung. The patient, however, recovered from this attack, but on the fourth day had a second attack, indicating embolism, gradually recovered from this and finally had a third attack, which was rather atypical. The patient ultimately recovered and returned to her home. The most important point in the treatment of pulmonary embolism is stimulation of the heart. [J. S.]

5.—Raff has investigated a considerable number of patients in order to determine the presence of angiomata of the skin. He finds that they are quite common in old persons, but also fairly common in young persons. He discusses their probable significance, whether they are tumors, varices or analogous to the nevi. There is no evidence that they bear any relation to carcinoma. [J. S.]

6.—Federschmidt reports the case of a man, 21 years of age, who was attacked by pain in the lower portion of the intestine. Next day he walked 5 kilometers to the hospital. There was dulness in the ileocecal region, some tenderness and no fever. A week later he felt entirely well, but because the exudate still persisted he was retained in the hospital. Whilst straining during defecation the patient suddenly felt intense pain, commenced to vomit and went into a state of collapse. Three hours later there was evidence of perforative peritonitis. As the only possible chance was by operation, laparotomy was performed and about 300 cc. of serous pus found in the abdominal cavity. Drainage was introduced and the wound slightly washed with a small quantity of 3% carbolic acid solution. The patient felt much better, in the course of 4 weeks gradually improved, and finally left the hospital entirely well. [J. S.]

7.—Keller reports the case of a woman, 29 years of age, apparently in the second month of pregnancy who, in attempting to lift a heavy weight, suddenly developed pain in the lower portion of the abdomen. Four weeks later an exudate with tenderness was found in the ileocecal region and a diagnosis of perityphlitic abscess was made. An operation was performed and an encapsulated abscess found which was attached to the abdominal wall. Ten days later

this broke spontaneously and evacuated a large amount of pus. Four weeks after the operation the patient aborted. She made a perfect recovery. Keiler believes that in such cases the only treatment is operation and that any attempt to produce abortion only adds to the danger of the condition. [J. S.]

8.—Bauer reports the case of a girl, 18 years of age, who developed typical pulmonary tuberculosis, in the course of which she had an attack of *purpura hemorrhagica*. This appeared to be associated with the rapid increase in the signs of the condition. [J. S.]

9.—Müller agrees with Miller regarding the co-operation of physicians with the hygienic measures introduced by the State. He discusses the relation of physicians to accidents. [J. S.]

10.—Thost states that in 109 patients suffering from hay fever there was a chronic nervous condition. The symptoms usually commence in the mucous membranes of the nose and eyes, and may subsequently involve the pharynx, esophagus, the ears and finally the bronchi, giving rise to asthma. Of his patients 266 suffered from asthma and only 134 had typical hay cold. A variety of other symptoms occurred much less frequently. In regard to the treatment it can only be said that all the measures that are useful in coryza are useful in hay fever. Fifty-five of 400 patients were treated by caustics to the nasal mucous membranes with good results in 12; 133 with galvanocautery with good results in 45 and bad results in 2. In 3 cases the nasal cavities were dilated and the results were favorable in 2. Probably the results of local treatment would be better if it could be instituted earlier, carried through to completion during the intervals and employed intelligently by specialists. For the asthma, morphine, codeine and chloral may be employed. Adrenal extract has not given favorable results in Thost's hands. Other methods of treatment are hydrotherapy, the treatment of gout, etc. The most efficient method, however, is change of climate. In Germany the best locality is Heligoland. In conclusion Thost regards hay fever as a reflex neurosis involving the respiratory tract. [J. S.]

11.—Wassermann, in continuation of his study of leukocytosis in appendicitis, mentions that in certain cases the symptoms indicated extensive suppuration, although the leukocytes were not greatly increased. These cases, however, are exceptional and in general it may be said that leukocytosis is the most delicate reaction we have to indicate the presence of a suppurative process in the appendix. He also mentions some interesting cases in which the presence of leukocytosis indicated the presence of suppurative processes, in the abdominal cavity, showing—many of them—a rapid reduction of the number of leukocytes after operative interference. In cases of chronic appendicitis the leukocytes are usually few in number. In various other operative procedures in which leukocytosis was present, pus was almost invariably found. In one case the patient had a phlegmonous inflammation of the left hand and arm for which amputation was necessary; the leukocytes diminished after the operation, although for several days the temperature remained elevated. In another case (a migratory erysipelas) leukocytosis was high, the temperature was moderate, but streptococci were found in the blood and the patient finally died. In another interesting case a polymorphonuclear leukocytosis existed in association with an abdominal tumor which was found to be a lymphosarcoma. [J. S.]

May 13, 1902. (No. 19.)

1. Paraneuritis and Pyonephrosis Following Cutaneous Boils. A. CAHN.
2. Contribution to the Knowledge of Mal Perforans Pedis, with Special Consideration of the Etiology. E. TOMASCZEWSKI.
3. Tuberculosis of the Larynx. R. FREYTAG.
4. The Effect Upon the Liver Produced by the Diaphragm and Massage of the Liver. K. WALZ.
5. The Nutrition Required in Wintering in High Mountains. K. RANKE.
6. The Occurrence of Foreign Bodies in the Uterus. F. HERMANN.
7. Reflex Convulsions in Association with *Ascaris Lumbricoides*. J. NAAB.

8. The Prevention of Puerperal Fever. H. HOFMEIER.
9. The Isodynamic Law. H. von HOESSLIN.
10. The Object of the Leipsic Union. KREEKE.

1.—Cahn reports 4 cases of *paraneuritis* with the following histories. A man developed a furuncle on the outer side of the left thigh. He had pronounced general symptoms, and after the discharge of pus he continued to grow weaker, had a remittent fever with delirium, slight enlargement of the spleen and a small pleuritic exudate on the right side. There were no signs of tuberculosis or typhoid fever. Later a slight swelling appeared in the region of the right kidney and an incision was made, an abscess evacuated and the patient recovered almost immediately. The second patient, a girl of 20, had pain in the right renal region posteriorly; there was tenderness and a low position of the lower end of the kidney. There was a history of a small abscess of the cheek which had produced severe general symptoms. An incision was made and an abscess surrounding the right kidney was evacuated and the patient recovered. The third patient, a man of 35 years, had a boil on the nasal septum which was followed by fever, there was an increased area of dulness on the left side below the spleen and some resistance in this region. There was marked leukocytosis and a diagnosis of *paraneuritic* abscess was made. It was relieved by operation. The pus contained streptococci. The fourth case gave a typical history of *paraneuritic* abscess, but no history of furuncle could be obtained. Hitherto only one case of *paraneuritis* has been supposed to be the result of a furuncle. Finally Cahn reports the history of a man, 59 years of age, who had renal calculus. He developed a furuncle and as a result apparently had an infectious pyelitis with *pyonephrosis*. An operation was refused for 2 years but even when performed at this late date it caused considerable improvement. [J. S.]

2.—Tomasczewski believes that the etiology of mal perforans is variable, that is to say, that different factors may exist in different cases. He described in detail 10 cases of this condition that he has examined, occurring in patients varying from 15 to 75 years of age. The diagnosis in 4 cases was *tabes dorsalis*. In one case traumatic lesion of the *conus medullaris*; in one, leprosy, alcoholic polyneuritis; in one, diabetes mellitus; in one, spinal disease, and in one senile dementia. The most essential exciting cause is probably pressure upon the sole of the foot, with local reduction in sensation. The paper is still unfinished. [J. S.]

3.—Freytag, after admitting the existence of primary laryngeal tuberculosis, calls attention to the extremely unfavorable prognosis of cases in which there is swelling of the glands. Among the various methods of treatment is the endolaryngeal surgical intervention, although it is difficult, by this means, to remove all the diseased tissue. Extralaryngeal operations have the disadvantage of exposing the already diseased lungs to the dangers of tracheotomy. He mentions the case of a woman in whom a tuberculous tumor of the larynx was apparently thoroughly removed, but who subsequently developed a renewal of the process; another case in which after temporary improvement all the symptoms returned. The method of treatment was painful. Lactic acid is of no use unless ulceration has occurred. When ulceration had not occurred, parachlorophenol in 5 to 20% solutions in glycerine will probably prove valuable. It is less painful than the application of lactic acid. Insufflation of powders, particularly iodoform, is also of value. Orthoform is probably even better and possesses other advantages. In addition, the inhalation of creosote, balsam of Peru, etc., often helps the patient. Of course, the most efficient treatment is climatic and hygienic. [J. S.]

4.—Walz discusses Moebius's article upon the effects of respiration upon the liver and claims that in deep inspiration pressure is exerted only upon the convexity. The normal position of the diaphragm is probably that at the end of expiration, when the liver is in a state of rest. During forced expiration the lower surface of the liver is compressed as a result of the increasing convexity of the upper surface and therefore the blood is forced out. During forced inspiration the blood is also forced into the cava, the gall-bladder becomes entirely relaxed and therefore the respiratory massage of the liver is of considerable value in relieving congestion. [J. S.]

5.—Ranke has performed a series of experiments in a sanatorium, 1860 meters above the sea, in the winter, in order to determine what effect the altitude and temperature had upon the metabolism. The details of his experiments cannot well be given in an abstract. The conclusions however, are that when exposed to low temperature the maintainance of the equilibrium of the heat production and elimination does not especially conflict with the balance of metabolism. The energy of the organism is considerably increased and this is probably the chief therapeutic effect. [J. S.]

6.—Hermann discusses the various ways by which foreign bodies may enter the cavity of the uterus. The recognition of their presence is usually easy. Often they can be determined by simple digital examination or inspection with a speculum, or if not, then by the simple introduction of the uterine sound or the application of the blunt curette. He reports altogether 23 cases, of which 2 were observed by himself. The first was a girl of 15, who had pain in the lower portion of the abdomen and extreme tenderness of the uterus. As she had never menstruated, it was supposed that this was the cause of the disturbance. A second examination showed slight enlargement of the uterus and marked vaginitis. The introduction of the uterine sound showed the presence of a hard object. The history showed that she had been the victim of an assault by a woman at the age of 9 years. The dilatation of the os enabled the removal of an ordinary hair-pin. The patient immediately recovered. The second patient, a woman of 32, after 3 normal births, had 2 abortions. After the second abortion the introduction of the curette showed the presence of an object which, when removed, proved to be a portion of a hair-pin. The interesting fact is that foreign bodies can so readily be introduced into the uterine cavity. [J. S.]

7.—Naab reports a curious form of disease occurring in young children in Aleppo. The patients suddenly develop severe cerebral symptoms, desire to sleep, only react to strong stimulants, gnash the teeth, roll the eyes and often have severe convulsions. The cause appears to be the presence of worms in the intestines, the patients recovering as soon as the parasites are expelled. [J. S.]

8.—Hofmeier insists that it is exceedingly important not only to prevent the introduction of pathogenic germs into the puerperal patient, but also to render the germs there present as innocuous as possible. He mentions 3 cases that he has collected from the literature, in which the infection apparently came from micro-organisms in the patient, and describes one case occurring in his own practice, in which the patient became infected after an abortion, although no examination had been made at any time, until the infection was well established. [J. S.]

9.—von Hösslin contributes a controversial article with the object of showing that in his previous article he was not guilty of the various faults of which he was accused by Rubner and von Voit. [J. S.]

No. 10.—Kreeke believes that it is important for the medical profession of Germany to unite in order to prevent various forms of imposition that are practised upon it by societies and other organizations, and that it is important that all physicians unite and not only a portion of them. [J. S.]

WIENER KLINISCHE WOCHENSCHRIFT.

May 8, 1902. (XV. Jahrgang, No. 19.)

1. The Anatomy of the Ileocecal Valve. OSCAR KRAUS.
2. Insufficiency of the Ileocecal Valve. HEINRICH WEISS.
3. The Pathology of Assimilation. (Concluded.)

ERNST FREUND.

1.—After reviewing the history of the subject, Kraus demonstrated specimens of the ileum and cecum, showing, anteriorly, a triangular ileocecal fold between the cecal and first colic folds, always noted when the ileocecal valve is sufficient. The conditions found posteriorly are also described, with the changes which follow insufflation, causing an insufficient ileocecal valve. These are illustrated diagrammatically. Out of 130 intestines examined, the ileocecal valve was insufficient in 11 cases. The ileocecal fold is widely dilated, as are all the others. He believes

that normally the ileocecal valve closes passively, absolutely impermeable even to gas; that by dilating the colon it may become insufficient; that this may occur pathologically as well as experimentally; and that, while it may be possible to open the normal valve by its nerves, yet such an opening from the colon seems improbable. [M. O.]

2.—To be abstracted when concluded.

3.—When assimilation is normal, the amount of nitrogen ingested is excreted in 24 hours, and this bears an exact relation to the destruction of albumin in the organism. When any change occurs, assimilation becomes pathological. Freund reviews the steps in the study of assimilation and the investigations of different observers upon oxidation, gout, leukemia, etc. Just as some local cause determines the formation of stone in the bladder, so some anatomical abnormality causes gouty tophi to be deposited in the joints. Diseases are the effects of several factors which cause irregular assimilation. This is shown in diabetes, fever, etc. Besides the fact that an abnormal substance may exist in the tissues, a normal material may exist in an abnormal spot. In assimilation and disassimilation there are chemical and physical processes which cause mechanical destruction of the cell substance, an effect impossible from purely chemical action alone. While oxidation occurs at the periphery of a cell, reduction may occur in the center. The causes of pathological changes in cells are overfunction and undernutrition. In the former atrophy results; in the latter, deficient secretion. Therefore for an exact comprehension of assimilation, it is not enough to estimate the amount of materials ingested and excreted. [M. O.]

May 15, 1902. (XV. Jahrgang, No. 20.)

1. The Histogenesis of the So-called "Krukenberg" Ovarian Tumors. G. A. WAGNER.
2. Myoma Telangiectoides Uteri with Metastases in the Liver and Lungs. FRIEDRICH SCHLAGENHAUFER.
3. The Agglutinating Power and Bacteria in a Fetus from a Mother with Typhoid Fever. LUDWIG JEHL.
4. Insufficiency of the Ileocecal Valve. HEINRICH WEISS.
5. The Combat Against Tuberculosis. LUDWIG TELEKY.

1.—Wagner reports the history of a woman of 69, who had been suffering 3 months from nausea, vomiting and loss of flesh. She died soon after admission to the hospital. The autopsy revealed numerous intestinal adhesions, dilated right ventricle, tumor of the pylorus and cystic ovarian tumors. Histologically the pyloric tumor showed layers of cystic cells with small sickle-shaped nuclei. This was a scirrhus cancer which had undergone gelatinous degeneration. The case shows that the so-called "Krukenberg" ovarian tumors are metastases from pyloric cancer, the scirrhus cells having degenerated. [M. O.]

2.—Five myomata are given in the literature with metastases. Schlagenhauer adds another, in a woman of 58, with telangiectoid uterine myoma, who died 7 weeks after the abdominal tumor had first been noticed. The autopsy showed metastases in both lungs and in the liver and possible myomatosis of the peritoneum. He noted very little connective tissue in malignant myoma. [M. O.]

3.—Jehle reports the case of a 7 months fetus, stillborn in the fifth week of the mother's typhoid. No bacteria were found, while the fetal blood caused agglutination of typhoid bacilli much less promptly than the maternal blood. In the second case, a 5 months fetus was born in the third week of the mother's typhoid. No bacilli were found, nor did the fetal blood give the Widal reaction, though the maternal blood reacted at once. In the third case, a woman, in the second month of pregnancy, aborted in the third week of typhoid. Here again no typhoid bacilli were found. The 3 mothers recovered. This shows that the bloodserum

of a fetus, not containing typhoid bacilli, shows little or no agglutinating power. [M. O.]

4.—Weiss reviews the anatomical relations of the ileocecal valve and gives many quotations to show what Herz, in his recent paper, overlooked. Thus his experiments, anatomical, pathological and etiological investigations, clinical symptomatology and conclusions have all been published, in some instances 300 years before. The treatment of insufficiency of the ileocecal valve has also been fully discussed by former writers, all of whom were ignored by Herz. [M. O.]

5.—Teleky advises that all cases of tuberculosis be reported officially and that all houses or rooms occupied by tubercular patients be disinfected after their removal. The details of both of these procedures are discussed in full. [M. O.]

DEUTSCHES ARCHIV FUER KLINISCHE MEDICIN. (Band 71, Heft 4 u. 5.)

20. A Method of Investigation of the Functions of the Stomach according to Professor Sahli. SEILER.
21. A Peculiar Form of Progressive Muscular Atrophy after Injury. ROSE.
22. Contribution to the Statistics, Pathology and Therapeutics of Typhoid Fever (Clinical Report of the Cases Treated in the Medical Clinic of Strassburg in the Year 1900). KUEHN and SUCKSDORFF.
23. Poisoning with Brommethyl. JAQUET.
24. The Pathology of Cirrhosis of the Liver. ASCOLI.
25. The Symptomatology of Tabes Dorsalis. GROSS.
26. Blood Investigations in Constitutional Syphilis Under the Influence of Mercurial Treatment, with Special Consideration of the Amount of Iron Contained in It. PAPPENHEIM and LOEWENBACH.
27. Contribution to the Casuistry of Sporadic Cretinism. SCHIFFMACHER.
28. Brief Communications: (1) The Treatment of Croupous Pneumonia with Quinine. PEL. (2) The Proportion of Red Blood-discs in Intermittent Tertian Fever. SCHUEFFER.
29. Book Reviews.

20.—Seiler calls attention to the great defect in gastric analysis in that they do not indicate the quantity of gastric juice secreted. It is impossible to draw any conclusions from the amount of gastric contents withdrawn after a test-meal. Mathien has advised a method which consists in the administration of a definite quantity of oil in the test-meal and then measuring the quantity of oil in the contents obtained by expression, and by noting the diminution he is able to estimate the amount of gastric juice secreted. The objection to this method is that the oil is not agreeable to take, the chewing of the required quantity of bread causes considerable secretion of saliva, which interferes with the accuracy of the result. The quantity of bread causes an unequal distribution of the oil in the food, and finally the determination of the quantity of oil by ether extraction is too tedious for clinical practice. Seiler therefore suggests that an effort be made to find a test-meal that contains proteids, carbohydrates and fat so evenly distributed that definite results could be obtained. The first effort was made with milk, but the coagulation of this substance in the stomach made the results rather unsatisfactory, because the coagulum contained all the fat. He therefore employed a form of soup and made the fat estimation by means of a butyrometer modified from that employed for milk. Control estimations with Soxhlets apparatus showed that it was sufficiently accurate for clinical purposes. It was found that mixtures of the meal-soup with stomach contents placed in the incubator did not vary in the quantity of fat they contained nor in the amount of HCl present. The method therefore consists in the preparation of soup, the estimation of the quantity of fat it contains, the administration of the soup to the patient, its withdrawal afterward and again the determination of the fat. The results are determined by means of a rather complicated formula from which is found the amount of gastric secretion. By this method the ferments can also be readily determined. The soup is prepared as follows: Twenty-five gm. of flour are mixed with 15 gm. of cooking butter carefully browned, and then by the continual addition of water with stirring, increased to a quantity of

350 cc. Three hundred cc. are given to the patient and 50 cc. retained for the determination of fat. The acidity is determined by phenolphthalein. The results showed the acidity of the pure secretion in normal stomachs varying from 3.2 to 4.4. He also quotes some cases in which by this method it was possible to determine either that there was diminished secretion with hyperacidity or increased secretion with diminished acidity, or hypermotility, or insufficient motility of the stomach. In 2 cases the results of examination by ordinary methods led to directly contrary results. Further investigations are, however, necessary before the exact value of this method can be known. [J. S.]

21.—Rose reports 2 cases of progressive muscular atrophy following injury. The first, a man, 46 years of age, burned his left foot and leg in boiling fat. After the wounds had healed, he felt pain in the leg, followed by weakness and sometimes swelling of the left foot. This gradually increased, extended to the arm, and at the same time there was some loss of sensation in the left half of the body. Two and a half years later he had a severe febrile disease and was in bed for 3 months. After this the right side of the body commenced to emaciate and grow weaker. There was marked atrophy of the muscles, extreme loss of power, normal reflexes and anesthesia for touch, pain and temperature in the left foot and leg and hypesthesia for the same 3 conditions in the left half of the body. There was apparently slight hypesthesia in the left half of the body. The muscles showed quantitative diminution of the electrical reaction but no degeneration. The second patient, a man of 53 years, was injured in 1889 by a heavy weight falling on his leg. Shortly after this he had difficulty in walking, developed a tremor in both arms, emaciated, and his back became slightly bent. There was atrophy of the muscles and loss of motor power. The reflexes were slightly increased, the electrical reactions were normal, fibrillary twitching of the muscles could be seen, and there was a fine tremor of the hands and tongue. In both cases the muscles of the face escaped. Rose discusses the differential diagnosis, quotes a number of cases collected from the literature and reaches the conclusion that both cases belong to the type of functional neuroses, and probably are hysterical forms of muscular atrophy, although he prefers the term "functional." He believes that the injury acted by causing spinal commotion. The prognosis in both cases is probably unfavorable. [J. S.]

22.—Kuhn and Sucksdorff report 420 cases of typhoid fever treated at the medical clinic of Rostock in the course of 7 years, with 47 deaths, or 11 2/10%. In the Grand Duchy of Mecklenburg there were at the same time 439 cases with a mortality of 9 8/10%. The proportion of the cases to the population was approximately one per thousand. In many instances there was a distinct relation between the epidemic and infection of the drinking-water. From a consideration of the statistics of 97 cases observed in the year 1900 it appears that in the majority of cases the disease developed slowly with headache and malaise. Chills were rare; in a few cases there was vomiting, and in these the disease commenced acutely. Initial angina occurred in only one case. Usually there was constipation, followed by slight diarrhea. Intestinal hemorrhage occurred 6 times. Three of these died. Treatment consisted of baths during the day, phenacetine in 4 gr. doses during the evening and night. Relapse occurred in 17 cases, and was independent of any disturbance of diet. In 62 cases the typical roseolar eruption occurred and sometimes was more pronounced in the severe cases. In one case of 30 investigated the eruption was noticed on the epiglottis. In 86 cases the spleen was palpable. The Widal reaction was tested in 46 cases and was negative in 10. In 10 cases tested during the first week it was negative in 2 and doubtful in one. The diazo-reaction was found of considerable value in the earlier stages. Hypoleukocytosis was also important and, according to the authors, occurs earlier than the Widal reaction. Antityphoid serum was used in 2 cases and was in both successful. One of these was a woman with an excessively severe attack. The course of the disease did not appear to be shortened. Meat-juice in wine or bouillon, or even pure, was of considerable value in the treatment. The meteorism was treated either by an ice-pack or the introduction of the rectal tube. Bacteria were sometimes found in the urine and urotropine proved of value. [J. S.]

23.—Jaquet reports the case of a man, 30 years of age, who, on account of his occupation in a factory, was com-

pelled to inhale the vapor of brommethyl. From time to time he felt a slight numbness whilst at work, objects appeared confused and indistinct, but as soon as he went into the fresh air he recovered completely. On one occasion, owing to the breaking of a valve, a considerable amount of the vapor escaped into the air, and the patient immediately became dizzy, and in going to his house he staggered. The next day the dizziness was increased and he was weak and exhausted. The following night he was delirious, the next day had diplopia and it was necessary to remove him to the hospital. The physical examination was negative, with the exception of a very rapid heart action. There was some difficulty in sleeping, dizziness whenever he stood on his feet, but he gradually improved and returned to work about 6 weeks after admission to the hospital. He remained at work for 6 weeks, but then became dizzy and experienced loss of memory and was obliged to give it up. The patellar reflexes were exaggerated, but otherwise he was normal, the blood in particular showing no changes. He did not show any particular susceptibility to alcohol. Jaquet also mentions another case that occurred in the same factory, but which he did not observe. Rabbits poisoned with methyl bromide showed diminution of the bloodpressure and decreased frequency of respiration. He also mentions a case of a man suffering from acute methyl iodide intoxication. He had diplopia, vertigo and finally temporary blindness. He emaciated rapidly, was admitted to the hospital, where he developed albumin in the urine, persistent delirium, always worse at night, and finally numerous areas of gangrene in the skin. He was ultimately discharged, but his mental condition was not normal and it was necessary to employ him as watchman instead of in the factory. Brommethyl appears to produce vertigo, disturbance of vision and loss of muscle sense. The symptoms, however, do not readily disappear, but persist for some time after the exposure to the poison and are often accompanied by distinct mental disturbances. [J. S.]

24.—Ascoli does not believe that we have as yet sufficient knowledge of the subject of **cirrhosis of the liver** to devise a satisfactory anatomical classification. He discusses the various opinions of different pathologists and gives the histories of 2 cases, one representing Hanot's cirrhosis, the other Laennec's. Studies of the metabolism of these 2 cases showed that in Laennec's cirrhosis there was a retention of nitrogen, and in Hanot's cirrhosis a loss. The retention in Laennec's cirrhosis appears to be due to a deficiency of the nitrogen in the urine and feces. The results are given in tabular form. [J. S.]

25.—Gross reports the case of a man suffering from **tabes dorsalis** who had **hematoporphyrinuria** and also **urobilin** in the urine. The same case had been observed with the same symptoms in 1897, but at that time the tabes was not recognized. The patient died, and at the autopsy there was found hydrothorax, hydropericardium, hypertrophy of the heart, syphilitic arteritis, ascites, granular atrophy of the kidneys, passive congestion of the organs and commencing gray degeneration of the spinal cord. Microscopical examinations showed the characteristic changes of tabes. The interesting feature of the case was the recurrent hematoporphyrinuria which had been observed in one other case. [J. S.]

26.—Fappenheim and Löwenbach have made a careful series of examinations on 24 cases of **constitutional syphilis** and reached the following conclusions: The hemoglobin and iron in the blood are diminished before the treatment. Their quantity is not markedly influenced by the treatment, variations that may occur being within moderate limits. The relation between the iron and hemoglobin is not altered by constitutional syphilis nor by treatment with mercury. The number of red bloodcells is usually normal both before and after treatment. The leukocytes are not altered in number. Iron could not be found in the serum at any time, and in general the administration of mercury can be said to have had little effect on the blood. [J. S.]

27.—Schiffmacher reports the case of a **cretin**, 9 years of age, born with an abnormally large head, who developed in the course of its life all the characteristic appearances of the disease. In addition there was a large tumor in the left side of the abdomen. The child was given thyroid tablets and the tumor removed by operation. It was found to be a mass of feces, although the passage of the intestine was not occluded. It soon reappeared, and, as a result of the administration of castor oil, the child developed an obstinate and profuse diarrhea and died. The thyroid

tablets apparently only reduced the amount of fat. At the autopsy the thyroid glands were found to be absent, and there was hyperplasia of the entire body. At the age of 9 years the child was about the size of a normal child of one year and a half. [J. S.]

28.—(1) Pel insists upon the value of quinine in pneumonia. (2) Schüffer states that he was the first one to describe a peculiar staining reaction of the bloodcorpuscles in malaria by which they appeared to be mottled. [J. S.]

ARCHIV FUER KLINISCHE CHIRURGIE.

1902. (Vol. LXVI, Nos. 1 and 2.)

1. The Predisposing and Exciting Causes of Sudden Attacks of Appendicitis. RIEDEL.
2. The Double Operation for Purulent or Gangrenous Appendicitis. RIEDEL.
3. A Further Contribution to Renal Surgery. B. GROHE.
4. Tumor Formation upon the Hard Palate in Pseudoleukemia. W. ROEPKE.
5. Contributions to Operative Surgery. HILDEBRAND.
6. Traumatic Hernia. C. S. HAEGLER.
7. Congenital Sacrococcygeal Tumors. E. HAGENBACH.

8. Some Operated Cases of Obstruction to the Lumen of the Intestines. W. COURVOISIER.
9. One Hundred Cases of Perityphlitis. A. MUELLER.

1.—Riedel concludes that an absolutely healthy appendix is never attacked by **appendicitis**, but may become involved by continuity from catarrhal inflammation of the cecum; that appendicitis has always a gradual beginning without symptoms, followed by signs of sudden acute inflammation; that a pointed foreign body in the appendix may give similar symptoms rapidly followed by perforation, that the appendix is predisposed to attacks by chronic illness; that, while fecal concretions are usually found in a healthy appendix, they may occur in granular or tubercular appendicitis; that stricture or stenosis of the appendix may occur; that nonpurulent appendicitis rarely contains a fecal concretion; that gangrene occurs earlier in purulent than nonpurulent appendicitis; that gangrene is more rare with stricture or stenosis of the appendix than with granular appendicitis; that minute hemorrhages occur and the infection reaches the lymphchannels; that peri-appendicular abscess may develop without perforation, rarely even at some distance from the appendix, and may be wholly absorbed, with recovery; that stenosis of the appendix rarely heals spontaneously and that the presence of a concretion usually causes suppuration, though it may reach the cecum. Only about 1/3 of all cases run a mild course. Of 282 patients with appendicitis, but 84 cases were nonpurulent. The symptoms, course and complications of nonpurulent appendicitis, with appendicular and peri-appendicular abscess, are fully described, many case-histories being given in detail. [M. O.]

2.—In **gangrenous or purulent appendicitis** operation is only necessary when relapse occurs. Eighty-eight to 92% of cases recover upon conservative treatment. It is, however, necessary to operate before perforation and peritonitis have resulted. The entire diseased parts must be removed. When operation is done early, a small incision will suffice. The technique of performing his method of **double operation** follows in detail, with several case-histories. No patient should die as the result of an operation for appendicitis. [M. O.]

3.—Grohé reports 44 cases of **renal conditions, with their treatment**. Of 3 cases of nephritic abscess, recovery followed nephrectomy in 2; of 3 cases of pyelonephritis, recovery resulted in one, after nephrotomy. Out of 4 cases of hydronephrosis and 4 cases of pyonephrosis, recovery followed nephrectomy in 3, of each disease; of 5 cases of renal calculi, 3 operations resulted in recovery; in 3 cases of stone in the ureter, recovery followed operation. In one case of nephralgia, nephrotomy caused recovery; of 15 cases of renal tuberculosis, 8 died; one cystic kidney was enucleated successfully; of 2 echinococcus cysts of the kidney, recovery resulted in but one, after extirpation of the cyst. Of 3 cases of renal fistulæ, one died. One of his 2 patients with kidney anomalies also died. [M. O.]

4.—Röpke reports a case of **pseudoleukemia** in a man of 62, who first noted angina, enlarged glands and dysphagia. His swollen tonsils were then removed. Later 2 hard tumors developed, symmetrical and oblong, on the hard

palate, while the tonsils again enlarged. Both were removed by operation. A year later tonsils and tumors had returned. Ascites and edema had also developed, with enlargement of the spleen and lymphglands. His general condition had grown much worse. Fowler's solution had no effect, nor was any leukocytosis noticed. The general spread of the tumors and the enlarged spleen excluded sarcoma. A review of the literature revealed 3 similar cases, which are quoted. The recurrent tumors of the hard palate were undoubtedly metastases. [M. O.]

5.—Hildebrand reports a case of **cholecystogastrostomy** in a man of 41, with recovery in 3 months. Six similar cases are quoted from the literature. The operation is indicated when the intestines are adherent and cholecystenterostomy is impossible. He then reports a case of **old dislocation of the jaw** reduced by operation, describing his technique. He also reports an operation for **habitual luxation of the shoulder** with good functional result. His operation is upon the bone, making a new glenoid cavity. A review of the literature follows. He also reports a case of **habitual dislocation of the patella** in a girl of 17, following traumatism, treated by osteotomy of the lower end of the femur, with good recovery. Another similar case-history follows. Finally he discusses the **surgical significance of sesamoid bones** in the knee joint, reporting 2 cases, in both of which he extirpated the bones. The occurrence of symptoms is due to incarceration of the bone, generally following some accident. It should then be removed by operation. [M. O.]

6.—A **traumatic hernia** follows direct or indirect traumatism. A predisposition or an hereditary tendency to hernia is very frequent. Out of 51,000 patients, 683 had herniæ, 233 of which were traumatic. It occurs suddenly, with overexertion. There is pain and the hernia is immediately felt. The size of the hernia will depend upon the force exerted and the mechanical resistance offered. Inguinal hernia occurs more frequently on the right side. It is impossible to reduce traumatic herniæ. Tenderness at the point of occurrence of the hernia is also noted. Yet it is exceedingly difficult to state whether the hernia is recent and sudden or of gradual formation. Incomplete inguinal hernia often occurs with increased intra-abdominal pressure, but is easily reducible. By autopsy alone is it possible to determine whether the hernia was traumatic or not. Six autopsy reports and 10 case-histories follow. In Switzerland most of these cases undergo radical operation. [M. O.]

7.—**Congenital sacrococcygeal tumors** have been described from time to time. Hagenbach describes 3 such cases in detail, with full case-histories. In all 3 cases these tail-like appendages were removed by operation. While the first 2 contained skin, fat, muscle, nerves and bloodvessels, the third held cartilage, spinal cord and intestinal glands besides. Embryologically such a tail is easily explained. A full review of the literature follows. The first 2 cases showed a persistent caudal segment; the last was a sacral teratoma, originating from the postanal intestine and ductus neurentericus. [M. O.]

8.—Courvoisier reports in full a case of **congenital stenosis of the esophagus**, in an infant, 2 days old, with **imperforate rectum**. The rectum communicated with the urethra. In spite of an operative anus, the child grew worse and died soon after laparotomy. He reports 3 cases of **navagination** in 2 children and a man of 21. While the children died after laparotomy, the adult recovered. He also reports the case-histories of a woman of 64 with **volvulus of the sigmoid flexure**, with operation and death; of a woman of 53 with **internal intestinal incarceration** with death after operation; of 2 patients with **ileus** from peritoneal adhesions, with operation and recovery; of a patient with **ileus** due to appendiceal adhesions, with death after operation; of a patient with **ileus** from a Meckel's diverticulum, with operation and recovery, and of 3 patients with **stenosis of the large intestine from cancer**, with death after operation. [M. O.]

9.—Of 100 cases of **perityphlitis**, 61 were in men and 39 in women. Thirty-two operations were performed during the attack; between attacks, in 61 cases: laparotomy for general peritonitis in 16 cases, and in 5 cases no operation at all was needed. His statistics show that perityphlitis occurs in the first attack in 41%; in the second in 21%; in the third in 23% and in later attacks in 16%. Symptoms suddenly reach their height, showing marked peritoneal irritation. He protests against the use of opium. In some

cases a tumor is found in the ileocecal region as early as the second day. The indications for operating are symptoms of peritonitis or of continued inflammation. Six of his cases were retroperitoneal, 19 were intraperitoneal, the rest being both intra- and extraperitoneal. Among the complications observed were subphrenic abscess, fecal fistula, right-sided empyema, pleurisy and parametritis. General peritonitis followed in 14 cases, 11 of them after operation. A gangrenous appendix was found in 10 patients, while fecal concretions were frequent in cases with peritonitis. General peritonitis from perforation occurred from the fifth to the eighth day. But one of the 61 operations for removing the appendix between attacks ended fatally. Stricture of the appendix was observed in 30 cases, about 50%. The course of the perityphlitic abscess may be downward, upward, forward, medially, laterally or under the colon. Spontaneous recovery in perityphlitis is possible, but the disease can only be cured by removing the appendix. Perityphlitis may be benign or malignant; in the former case operation is not necessary, while in the latter early extirpation of the appendix alone will save life. [M. O.]

ANNALS OF SURGERY.

June, 1902.

1. Fracture of the Base of the Fifth Metatarsal Bone by Indirect Violence. ROBERT JONES...
2. Studies in the Pathogenesis of Appendicitis. S. P. KRAMER.
3. Clinical Observations on the Surgery of the Gall-bladder. A. J. OCHSNER.
4. Analysis of 328 Operations Upon the Gall-Bladder and Bile Passages. W. J. MAYO.
5. The Surgical Aspects of the Status Lymphaticus. J. A. BLAKE.
6. Abscesses in the Right Iliac Region and Other Lesions not of Gynecological or Appendiceal Origin Mistaken for Appendicitis. J. M. SPELLISSY.
7. Sarcoma of the Mesentery. A. C. BERNAYS.
8. Hemostasis of the Broad Ligament. H. P. NEWMAN.

1.—Jones describes 6 cases of **fracture of the base of the fifth metatarsal bone**, 4 of which came under his own observation. There is generally no crepitus, deformity or abnormal mobility, but sharp pain over the seat of fracture and localized swelling. The fracture is due to a cross-breaking strain directed anteriorly to the metatarsal base and caused by body pressure on an inverted foot while the heel is raised. Most of the authorities emphasize that fracture of the metatarsal bones is always due to direct violence. Several skiagrams are given. [F. T. S.]

2.—Kramer describes the anatomical peculiarities of the appendix which conduce to inflammation of that organ, points out the significant fact that peristalsis is absent in that structure and says the concretions which are found show that at least the outer half and in many cases nearly all the concretion is made up of closely packed cells cemented together with mucus; the cells are derived from the cast-off epithelium from the lining of the appendix. [F. T. S.]

3.—See Department for Coöperation and Original Research for October.

4.—See Department for Coöperative and Original Research for October.

5.—Blake says the belief that sudden deaths associated with enlargement of the thymus gland are due to mechanical interference with the trachea or large vessels and nerves in the upper thorax has given way to the conviction that the exitus in these cases is the result of a general lowering of the vital forces. Associated with the enlarged thymus there is usually a hyperplasia of the lymphatic tissues throughout the body, including the lymphoid marrow, enlargement of the spleen, often hypoplasia of the aorta and heart, and not infrequently rachitis. Anesthesia in the status lymphaticus is frequently fatal; death may occur at any stage of the anesthesia or even some hours after, the symptoms being those of cardiac and respiratory failure. A definite diagnosis before death seems an impossibility. Seven cases are reported. [F. T. S.]

6.—Spellissy gives the reports of 194 cases with lesions of 20 varieties of structure and 68 species of lesion, not one of which was of **appendiceal** origin but all of which were so mistaken. Spellissy concludes that a diagnosis in cases with symptoms pointing to the right iliac fossa should not

be made without a routine, conscientious examination for, and exclusion of, the various troubles that may exhibit misleading symptoms and signs. [F. T. S.]

7.—Bernays reports a case of **sarcoma of the mesentery** which he resected, together with 9 ft. 11 in. of the ileum and jejunum. The patient made a perfect recovery and was rapidly gaining weight 40 days after operation. [F. T. S.]

8.—See *Philadelphia Medical Journal*, Vol. 9, No. 25, p. 1108.

THE JOURNAL OF EXPERIMENTAL MEDICINE.

March 17, 1902. (Vol. VI, No. 3.)

1. Experiments on the Effects of Injection of Egg-albumen and Some Other Proteids.

TORALD SOLLMANN and E. D. BROWN.

2. A Contribution to Our Knowledge of the Action of Saponin on the Bloodcorpuscles and Puscorpuscles.

G. N. STEWART.

3. Snake Venom in Relation to Hemolysis, Bacteriolysis and Toxicity.

SIMON FLEXNER and HIDEYO NOGUCHI.

4. On a Coccidium (*Klossiella muris*) Parasitic in the Renal Epithelium of the Mouse.

THEOBALD SMITH and HERBERT P. JOHNSON.

1.—From a study of the results of the injection of egg-albumen and other proteids, Sollmann and Brown conclude: (1) The excretion of the injection of the egg-albumen, as such, is in no case complete. The quantity retained varies from 23% to 100%. (2) The retained amount varies directly with the slowness of absorption, directly with the time that the proteid remains in the body, inversely to the quantity injected, and with individual peculiarity. (3) The excreted proteid coagulates at the same temperatures as the injected proteid. (4) The injection of egg-albumen does not cause the appearance of globulins in the urine. (5) The proportion of albumen coagulating at low temperature is less in the urine than in the injected solution. . . . (7) The albuminuria lasts from 1½ to 3 days in typical cases, according to the manner of administration. (8) Alkali-albumin as well as muscle proteids are completely retained. (9) A small amount of proteid is excreted unchanged by the feces. (10) A variable proportion is excreted as non-coagulable proteid. (11) The remainder undergoes complete metabolism to urea. (12) The total nitrogen excretion is increased beyond the amount of nitrogen introduced as albumen. (13) Starvation appears to cause an increase in the ratio of the urea to the total nitrogen of the urine. (14) The effects of intravenous injection of egg-albumen on circulation and respiration do not differ from those of an equivalent injection of the solvent. Albumen causes, however, a specific diuresis, beginning 50 minutes after the intravenous injection and reaching its maximum in about 2 hours. It causes neither glycosuria nor hemoglobinuria. (15) The injection of egg-albumen, alkaline egg-syntonin or muscle extracts causes a rise of temperature of from 1° to 2° C. in rabbits. This begins in about an hour, usually reaches its maximum in from 6 to 8 hours, and then falls rapidly. The fever does not cause histological alterations in any organ examined. The injection of normal salt solution may cause a rise, but this is much smaller. (16) The injection of egg-albumen causes but very slight histological changes. A slight degree of nephritis may occur, but this is not of such degree as to affect permanent lesions. The injection of muscle extracts may give rise to a more pronounced parenchymatous nephritis. (17) Urethane is fatal to rabbits in doses of from 0.75 to 1.0 gm. per kilo., producing extensive granular and vacuolar degenerations of the hepatic epithelium. Chloretone does not cause the degeneration but is followed by congestion of the abdominal viscera. (18) Native egg-albumen injected into the femoral vein of the dog was followed, in one case, by a fatal ending with convulsions and coma. Further experiments demonstrated that there is no toxicity inherent in fresh egg-albumen nor can it be developed by brooding the eggs in the shell. The cause of the above fatal issue must, therefore, be sought in some extraneous agent that contaminated the solution. Muscle extracts were also devoid of toxicity. Alkali-albumin produces no changes beyond those that may be attributed to the free alkali contained therein. [J. M. S.]

2.—Stewart contributes a paper on the action of saponin on bloodcorpuscles. He finds that the increase of conductivity produced by saponin in blood hardened by formalde-

hyde is due to increase in the conductivity of the corpuscles and not to the liberation of electrolytes from the corpuscles and a consequent increase in the conductivity of the serum. The increase in the permeability of the corpuscles is probably caused by a corrosive, dissolving or emulsifying action of the saponin on some nonproteid constituent of the envelope or stroma. In the first stage of the action of saponin on blood that is not hardened, there seems also to be an increase in the permeability of the corpuscles for ions, even before any hemoglobin has been liberated. The liberation of the hemoglobin may be secondary to this, owing to the entrance of water consequent on the disturbance of osmotic equilibrium. Heating the blood to 40° or 45° C. intensifies the laking action of saponin, so that a dose insufficient to cause laking at ordinary temperature may do so when the blood is heated to the temperature mentioned. Puscorpuscles like red bloodcorpuscles are worse conductors than the serum in which they are suspended. Unlike bloodcorpuscles they show no preference for ammonium chloride as compared with sodium chloride. On the other hand, the conductivity of pus is increased by the action of saponin just as is the case with blood and apparently very much in the same way; that is to say, by an action on the corpuscles and not on the serum. The fixing of the puscorpuscles by formaldehyde does not hinder this action of saponin. [J. M. S.]

3.—For the purposes of study of the relation of snake venom to hemolysis, bacteriolysis and toxicity, Flexner and Noguchi have employed dried venom and noted its action upon blood from the dog, the rabbit, the guinea-pig, the sheep, the ox, the pig, the Necturus and the frog. In the study of agglutination phenomena, the dried venom was dissolved in normal saline solution in strengths ranging from 0.01% to 10%. The phenomena of agglutination appear rapidly in strong solutions, while in very weak solutions a delay of from some minutes up to an hour may be noted. For the study of venom hemolysis, solutions of venom varying in strength from 0.0001% to 5% were used. Cobra venom was most active, followed by that of the water moccasin, copperhead and rattlesnake in the order mentioned. Dog's blood was most quickly hemolyzed, while the corpuscles of the ox were least susceptible. Crotalus venom was the only one that suffered a reduction after heating at 90° to 96° C. After heating to 100° C. for 15 minutes, the hemolytic power of all venoms was slightly reduced. Washed bloodcorpuscles were in no instance hemolyzed by venom. The authors have found that venom contains several intermediary bodies and that these bodies show specific affinities for certain complements. In addition, there is evidence that the many susceptible corpuscles contain common haptophore groups which are shared perhaps by all vulnerable corpuscles. In the blood, snake venom causes destruction of the leukocytes as well as of the red cells, and it also agglutinates them. The agglutinating principles may be identical for both white and red cells. The dissolving principle for leukocytes is distinct from that for red cells. In order that solution of venomized leukocytes shall occur a complement-containing fluid is required. The several varieties of white cells of the rabbits' blood show different susceptibilities to the action of venom. The authors have found that the neurotoxic and the hemolytic principles of venom are physiologically distinct. While the chief toxic constituent unites with the nerve cells, in multiple minimum lethal dose from which the neurotoxic principle has been removed, a quantity of hemolysin may be contained sufficient to bring about fatal intoxication. It seems then as though the brain cells contain the receptors for the neurotoxic constituent for venom while the bloodcells contain the receptors for the hemolytic principle. Venom reduces the bactericidal properties of bloodserum, possibly by affecting the intermediary body or the complement or both injuriously. All venoms when used in suitable quantities destroy the bactericidal properties of many normal bloodserums, by fixation of the serum complements by the venoms. Venoms have no action upon the intermediary bodies of serum. If the venom is incapable of uniting with the serum complement, the original bactericidal properties remain unaffected by its presence. Antivenin is nonhemolytic for rabbit's corpuscles and it neutralizes the venom and removes both its hemolytic and antibacterolytic actions. [J. M. S.]

4.—Smith and Johnson contribute a paper on the life

history of a *coccidium* which is parasitic in the renal epithelium of the mouse. The spores probably pass out in the urine and are most likely taken in by mice in the food and water. The falciform bodies set free in the digestive tract probably bore their way into the circulation which carries them into all parts of the body. Their minute size permits them to enter the smallest capillaries. In the kidneys they leave the capillaries in the glomerulus to invade the capsular epithelium and the epithelium of the convoluted tubules. In all other organs they are probably suppressed. [J. M. S.]

THE EDINBURGH MEDICAL JOURNAL.

May, 1902. (Vol. XI, No. 5.)

1. The Submucous Areolar Tissue of the Larynx and its Significance in the Spread of Edema.
A. LOGAN TURNER.
2. On the Symptoms and Diagnosis of Carcinoma of the Hepatic Flexure of the Colon.
A. ERNEST MAYLARD.
3. The Use and Abuse of Ether as a General Anesthetic.
R. J. PROBYN-WILLIAMS.
4. The Association of Movable Kidney on the Right Side, with Symptoms of Hepatic Disturbance.
S. H. HABERSHON.
5. Massage and Movements in Hemiplegia.
DOUGLAS GRAHAM.
6. A Nutritive Drink for Febrile and Wasting Diseases.
R. W. LEFTWICH.

1.—The sudden onset of acute edema of the larynx, producing symptoms of a grave nature, is an occurrence of vital importance, and the possibility of its sudden fatal termination should always be kept in mind. Cases have been reported in which death has taken place from asphyxia within a few minutes from the first onset of symptoms of dyspnea. The edema consists in a fluid exudation into the loose submucous areolar tissue, and may be inflammatory or noninflammatory. The inflammatory variety may be secondary to previously existing disease of the larynx or it may arise in connection with inflammations at the base of the tongue, in the fauces and in the pharynx, while more rarely it may result from an inflammatory process arising in the cellular tissue or glands of the neck. The noninflammatory form may occur as a local manifestation in renal and cardiac disease, or it may result from obstruction of the veins of the neck. Turner reports 3 cases of this condition. As a result of some experimental injections into larynges which had been removed from the cadaver, he concludes that subglottic edema may be entirely confined to the area below the cords and that extension of the edema into the submucous tissue of the trachea is not common. Edema originating in the regions of the tonsils will pass downward to the glosso-epiglottic fossæ and thence will find its way into the aryteno-epiglottic folds. Similarly, edema of the lateral wall of the pharynx will spread to the pyriform sinus and thence reach the aryteno-epiglottic fold. In this way dyspnea may supervene as a grave complication of faucial or pharyngeal inflammation. There is a barrier of dense tissue beneath the mucous membrane of the posterior pillar of the fauces which interferes with the spread of fluid from the tonsillar region to the lateral pharyngeal wall posterior to it. Fluid will not pass from the lingual surface of the epiglottis to its aryneal surface. [J. M. S.]

2.—Maylard reports 2 cases of carcinoma of the hepatic flexure of the colon. He concludes that there are no means at present known by which we can arrive at anything more than a suggestive diagnosis of this condition. The symptoms that may be taken as fairly suggestive of this syndrome are: (1) The prominence of digestive derangements in association with other symptoms indicative of colon disease; (2) these symptoms arise in connection with the bowel, primarily, and in connection with the stomach, secondarily; (3) the symptoms associated with obstruction of the hepatic flexure are more acute than those situated farther along the colon, and usually do not occur until the patient has already shown signs of constitutional disease; (4) pain is more common and more acute in disease of the cecum, ascending colon and hepatic flexure than when the growth involves other segments of the large intestine, and the pain is usually felt over the seat of the disease; (5) while the symptoms may suggest disease of

the colon up to and including the hepatic flexure, the absence of any tangible growth in the right iliac and lumbar regions will point to implication of the hepatic flexure. [J. M. S.]

3.—The reason for partial failure of ether and nitrous oxide as anesthetics in England, according to Probyn-Williams, was not so much the drugs themselves as the methods employed for their administration. It was not until Clover demonstrated the great advantage of curtailing the supply of air to the patient during the induction period that the administration of ether was first placed in its proper position. The safety of the patient is the first point to be considered in the selection of an anesthetic, and the statistics from all sources leave no doubt but that ether is safer than chloroform, both during the early stages of administration and at the end of a prolonged operation. Ether may be abused by being given to unsuitable subjects, by being used in operations in which the secretion of much mucus and saliva would be a great hindrance to the operator, by being given in large amounts so that the patient is soaked in it and by being given for too long a time so that conditions favorable to the production of bronchitis are set up. After ether has been given too freely or for too long a time, severe shock is likely to occur after it is stopped. The bronchitis and bronchopneumonia that occasionally follow the inhalation of ether may nearly always be avoided by care in the after treatment of the patient. The after treatment should consist of keeping the patient warm in bed and out of the reach of all draughts of cold air. [J. M. S.]

4.—Symptoms of hepatic disturbance may be produced by a cause which is generally described as reflex and which depends upon ptosis of the kidney or liver. A displacement of the right kidney is often responsible for hepatic disturbance. The hepatic symptoms of displaced right kidney are general biliousness, attacks of colicky pain, simulating bilious colic but not usually of the same severity and jaundice. The symptoms produced by right kidney displacement are exceedingly intractable and in almost all cases shaking and exertion precipitates a bilious attack. Habershon reports 9 cases of displaced right kidney associated with hepatic disturbance. He has found the abdominal belt and kidney pad efficacious in the treatment of the condition. [J. M. S.]

5.—Graham reports 2 cases in which massage and movements were employed in hemiplegia. He finds that these mechanical methods are of value in improving the circulation, temperature and comfort of the parts affected in the absence of severe pain, obstinate contracture or tonic spasms. They are also of value in educating the healthy parts of the brain to take the place of the injured ones. [J. M. S.]

6.—Leftwich advises the following drink for febrile and wasting diseases: Two lemons, the whites of 2 eggs, 1 pint of boiling water and loaf sugar to taste. The lemons must be peeled twice, the yellow rind alone being used, while the white layer is rejected. The sliced lemon and the yellow peel are placed in a quart jug with 2 lumps of sugar, the boiling water is poured over them and stirred occasionally. When cooled to about the ordinary temperature of tea the lemons are strained off. The white of egg is then added while the lemonade is being stirred, and the stirring should be continued for 2 or 3 minutes more. The fluid should be strained through muslin while hot and drunk cold. [J. M. S.]

THE PRACTITIONER.

March, 1902.

1. The Health of the People. By JAMES CANTLIE.
2. Some Illustrations of Graves's Disease.
By G. A. GIBSON.
3. Gout: Observations on Its Pathology, Forms and Treatment. By ARTHUR P. LUFF.
4. The Etiology of Pulmonary Tuberculosis.
F. W. BURTON-FANNING.

1.—Cantlie contributes a paper on the health of the people. He discusses the necessity for Great Britain to raise sturdy sons who shall go forth to her vast possessions and people them. The influence of town life is dealt with at length, as well as the care of the young and children's exercise. In this latter connection he mentions the necessity of covered play-grounds for children in proportioned

allotted districts of cities. The problem of dealing with young adults in towns of Great Britain, especially those of the lower classes, is one of importance, and he believes in compulsory military service from the sixteenth to the nineteenth year as the best means of developing the young and teaching them the value of discipline and order. Cantlie takes up the question of the **physique of boys and girls** at the present time in comparison with 40 years ago. He believes that it is true that the physique of girls is improving while that of boys has deteriorated. The improvement of the women is in part to be attributed to the growth of the popularity of outdoor sports. The statement, however, appears to hold true for the classes rather than the masses among whom indoor life, as workers in factories, etc., has proven anything but healthful. He believes that the health of boys who lack sturdiness is in part to be explained by the fact that they are not clad as warmly or hygienically as girls. A number of other questions of interest and all pertaining to the public health are taken up, including **exercise and the national games**, as well as the problem of the **home food-supply**. The paper is concluded with the plea for the **return of people to the land**, and the advantages of agricultural life over that of cities are forcibly expressed. [T. L. C.]

2.—Gibson presents the clinical notes of 6 cases of **Graves's disease** with cuts of the patients. [T. L. C.]

3.—Luff contributes some observations on the **pathology, forms and treatment of gout**. He states that it is now generally admitted that **hereditary predisposition** is a most important factor in the treatment of gout. It does not follow that the children of gouty parents will ever suffer from gout unless the conditions under which they live are suitable for the development of that disease. As to the **condition of the blood** in gout the test of experimental investigation is against the theory of a diminished alkalinity. He presents a table recording the results of daily determinations which he made on a gouty patient, of the **alkalinity of the blood**, of the **acidity of the urine** and of the **total urinary output of uric acid and urea** for each 24 hours. The results are of interest in showing: (1) The high alkalinity of the blood that was maintained throughout; (2) that no constant relation exists between the acidity of the urine and the alkalinity of the blood; (3) the **alkalizing effect** that was produced on the urine during the administration of **guaiaicum resin**. He still maintains that the treatment of gout by alkalies for their **solvent action on gouty deposits** is not only without value but may be positively injurious. Under the title of some forms of irregular gout he discusses the **gouty liver**, **gouty eczema**, the **gouty heart** and other changes. He mentions the relation so frequently observed between **gout and obesity**. Obesity generally precedes gout and should therefore be checked, as thereby the development of gout may be prevented. **Sodium salts** are directly detrimental to the removal of gouty deposits. In cases of sluggish action of the liver, of gastro-intestinal catarrh and torpor, of gouty dyspepsia and of other forms of irregular gout where there are no appreciable uratic symptoms, deposits in the joints, mineral waters containing sodium salts are undoubtedly beneficial, owing to the action of these salts as hepatic and gastro-intestinal stimulants. He does not value **lithium salts** as highly as **potassium and sodium salts**. Under treatment he further considers **baths and massage**, **diet**, **climatic treatment** and **prophylaxis**. Under this latter head he speaks favorably of **guaiaicum resin**, the benefit of which he ascribes to its stimulating effect on hepatic metabolism increasing the elimination of uric acid. He prescribes the powdered resin in cachets, beginning with 5-grain doses t. i. d., after meals, gradually increasing to one of 10 to 12 grains. **Quinic acid** diminishes the output of uric acid in the urine but at the same time increases the excretion of hippuric acid. He believes that the **combinations of quinic acid** may be of decided use in the treatment of certain forms of **chronic gout**. [T. L. C.]

4.—Burton-Fanning discusses the etiology of **pulmonary tuberculosis** under the heads: (1) The implantation of the **tubercle bacillus** and (2) the failure of the patient to retain the **bacillus within harmless bounds**. In a series of 100 cases, 3 of the number undoubtedly acquired the disease from close attendance on consumptives. No fewer than 16 presented distinct affection of glands preceding the

symptoms of pulmonary tuberculosis. Twenty-eight had suffered from distinct evidence of pleurisy before the onset of lung disease. Ten had had **pneumonia**. In 42% evidence was forthcoming of antecedent chest affections in all of which cases the tuberculous nature of these previous conditions is suspected. He believes that in a number of instances tuberculosis is **masked** for a longer or shorter period. As a rule he has found that these suspects are thin, of delicate appearance and often pale, their powers of endurance are slight and they suffer from backache and headache, as well as from poor digestion. [T. L. C.]

MEDICINSKOJE OBOZRENIE.

1902. (Vol. LVII, No. 4.)

1. Some Observations on the Treatment of Epilepsy with Cerebrin. IA. F. KAPLAN.
2. Tetany of Gastric Origin. The Pathologo-anatomical Changes in the Nervous System in this Disease. S. P. TCHERNISCHEFF.
3. A Case of Ulcerated Sore Throat Caused by Vincent's Bacillus. G. I. SMIRNOFF.
4. Suprarenal Extract in Rhinology. RADTSICH.
 - 1.—Kaplan was incited by Lion's paper to give **opocerebrin** a thorough and unbiased trial in the treatment of **epilepsy**. His observations embrace 13 cases of epilepsy of traumatic, idiopathic and physical origin. The drug was administered for periods varying from 2 to 3 weeks. In no instance did he notice the slightest improvement following the use of the drug. He concludes, therefore, that **cerebrin exerts no beneficial effect on either the psychical or nervous manifestations of epilepsy** and there is no basis whatever for the further experimentation with the drug in cases of epilepsy. [A. R.]

2.—Tchernischeff reviews briefly the bibliography of **tetany of gastric origin** and reports a case of this affection in a man, 43 years old, an alcoholic, who was admitted to the hospital with symptoms of **round gastric ulcer and dilatation of the stomach**. The patient died. On autopsy, a large **round ulcer** of the pylorus and extreme dilatation of the stomach were found. The liver and kidneys were anemic. Portions of the peripheral nerves and the central nervous system were taken for histological examination. The most prominent changes were found in the gray matter of the central convolutions of the brain. These were characterized by chromatolysis, vacuolization and fatty degeneration of the cells. [A. R.]

3.—Smirnoff reports a case of **angina closely simulating diphtheria** in a woman, 28 years old. Both tonsils were enlarged and hyperemic. The right was ulcerated and covered with a dirty-gray exudate. There was an offensive odor from the mouth and the submaxillary glands were enlarged. A microscopical examination of the exudate revealed the presence of the **bacillus fusiformis of Vincent**. The patient recovered in a week. The author quotes the opinion of Speranski, who maintains that such cases are not at all rare, and that the only reason why they were not discovered with greater frequency is to be looked for in the similarity between this form of ulcerative angina and diphtheria, making it impossible to distinguish the two without a microscopical examination. [A. R.]

4.—Radtsich extols **suprarenal extract** as a vasoconstrictor, hemostatic and local anesthetic. He prepares the extract, according to a method somewhat modified from Rosenberg's, as follows: (1) The suprarenal gland is carefully freed from the adhering fat; (2) rubbed up in a mortar to the consistency of a paste, and (3) covered with an equal volume of warm distilled water; (4) after ½ hour the infusion is filtered; (5) the filtrate is boiled to coagulate the albuminous substances and then filtered again into a sterile vessel and preserved by the addition of a few drops of a carbolic acid solution. The extract thus obtained is as efficient as any of the other expensive preparations of the suprarenal gland. [A. R.]

1902. (Vol. LVII, No. 5.)

1. On the Surgical Treatment of Rupture of the Uterus During Labor. V. V. OUSPENSKI.
2. An Operated Case of Extra-uterine Pregnancy With a Living Child of 8 Months. G. A. GREIFE.

3. A Case of Retinitis Circinata (Fuchs).
L. I. SERGIEVSKI.
4. The Modern Achievements in Phototherapy.
G. TSIECHANSKI.
5. The Theoretical Foundations for the Treatment with
Light. N. V. SLETOFF.
6. A Case of Spontaneous Cure of Tubercular Pyelitis
(Caseonephrosis). P. M. NEVIADOMSKI.
7. On the Staining of Sputum and Blood.

A. A. VISOTSKI.

1.—Ouspenski reviews the present methods of treating ruptures of the uterus during labor, giving preference to surgical intervention. Laparotomy is absolutely indicated when the fetus has entered the abdominal cavity altogether or in part, or if, after delivery of the child per vaginam, the intestines are protruding into the uterine cavity, or if there is a severe hemorrhage. A laparotomy offers the best advantages for a satisfactory treatment of the ruptured uterus. Not only is the extent and character of the injury readily determined, but the hemorrhage is more easily controlled and the operation facilitated. He reports 5 cases of rupture of the uterus, 3 of his own and 2 operated on by Vigileff and Kolomenkin, in which operative intervention resulted favorably. The cases were all in multipara. [A. R.]

2.—Greife reports a case of extra-uterine pregnancy in a multipara, 35 years old. The subjective symptoms of pregnancy were present and, except the first two months, gestation was not accompanied by any severe symptoms. The diagnosis was established by means of a physical examination which disclosed an unequal enlargement of the abdomen, a nonpregnant uterus with a large, fluctuating mass to the left of it. As the woman desired a living child and there were no immediate indications for an operation, it was decided to wait. On the twelfth day of admission, or about the eighth month of gestation, the woman had an attack of what appeared to be a ruptured tube and an operation was performed. An intraligamentous pregnancy was found. The child, a boy, measured about 41 cm. and weighed about 5 pounds. It was extracted in a state of asphyxia but was soon revived. Both mother and child recovered and remained in perfect health. [A. R.]

3.—Sergieviski describes a case of retinitis circinata in a woman, 53 years old, and gives a brief account of the observations of other authors concerning this affection. [A. R.]

4.—Tsiechanski reviews the recent progress made in phototherapy. [A. R.]

5.—Sletoff discusses the theory of phototherapy, concluding his paper with the following résumé: (1) Physicians employing light, electricity, hot air, various forms of heat, hydrotherapy, massage, etc. are not specialists in these various methods, but all of them do one and the same thing, namely, they exploit the vibrations of ray-energy as it appears in its varied forms to our sensations. (2) Finzen's method has rendered the greatest service on account of its harmlessness and superiority from a cosmetic standpoint; it attracted attention, owing to its beneficial effect on the most deforming affection of the face-lupus. (3) The same results may be achieved by simple means, it being necessary to give up the preconceived notions of chemical rays and cold light. (4) The action of light on bacteria has not so far attained any real foundation. (5) The most interesting of the indispensable sciences for the physician is physics. [A. R.]

6.—Neviadomski reports a case of tubercular pyelitis similar to the case reported by Rank in *Virchow's Archiv*, (Bd. 164, H. 1, 1901). The patient, a woman, 51 years old, came to autopsy after a prolonged affection of caries of the bones of the spine and left hip joint. The left kidney was found atrophied and infiltrated with caseous masses which contained tubercle bacilli. The right kidney also contained old tubercular foci. The bloodvessels showed arteriosclerotic changes. Tubercles were found on the serous covering of the intestines and peritoneum around the appendix, in the omentum and the apices of the lungs. The author advances the supposition that tubercular emboli set up a hydropyonephrosis which, together with the concomitant arteriosclerosis caused by the tubercular toxins, produced an interstitial nephritis. The tubercular foci, however, have undergone retrogressive changes similar to those frequently observed in healed tuberculosis of the

lungs. The term "caseonephritis" is proposed for such cases. [A. R.]

7.—Visotski commends highly Weigert's method for staining elastic fibers in the sputum. The presence of the latter is of considerable diagnostic value in cases of destruction of lung tissue in tuberculosis, gangrene, abscess, purulent pneumonia and infarct. For staining of blood he recommends Michaelis's method. [A. R.]

JOURNAL DES PRATICIENS.

April 12, 1902. (16me. Année, No. 15.)

1. Anesthetics: The Effect of Chloroform on the Kidneys: Ether Anesthesia by the Interrupted Method.
J. RENAUT.
2. The Uses of Harlem Oil. LIEGEOIS.
3. The Prevention of Ocular Injuries. A. TROUSSEAU.

1.—Renaut says that when enough chloroform is given to produce anesthesia, a renal lesion always results. Microscopically, the outer epithelium of the tubules has disappeared. Thus the dialyzing and filtering properties of the kidneys are badly injured, as his experiments upon animals show. On this account he prefers ether as a general anesthetic. Ether is absolutely harmless, as his 25 years' experience has shown. To prevent asphyxia, ether should be given by the interrupted method. The patient is anesthetized, then the ether is stopped temporarily, until reflexes appear, when it is again given for a short time. This is repeated indefinitely. Therefore, when the candle or cautery is not used in an operation, ether is to be preferred. [M. O.]

2.—Harlem oil, a mixture of the oils of laurel and of juniper, was in use in Holland in 1698. It is of service in alkaline urinary lithiasis, pyelitis, catarrhal jaundice, hepatic colic, etc. Liégeois gives it in capsule, as an aseptic, cholagogue, analgesic and diuretic. [M. O.]

3.—Six per cent. of the cases of binocular blindness and 20% of monocular blindness are due to injury. These may be professional, the accidents occurring during work. Care should be taken to prevent explosions, wire screens should keep off flying bits of steel, glass, etc. and workmen should wear protective spectacles. Other injuries occur as the result of chance or imprudence, as a rule not preventable. Careful treatment should be given at once, continued until the condition is bettered as far as is possible. [M. O.]

April 19, 1902. (16me. Année, No. 16.)

1. Gout From Chronic Lead Poisoning. WIDAL.
2. What Therapeutics Should Be. HENRI HUCHARD.

1.—Widal presented a man of 57, painter for 46 years, with saturnine gout. He had tophi on his fingers and ears, yet was perfectly well except for attacks of gout. His father had also had lead poisoning. He never took much alcohol. Saturnine gout only appears after long years of lead poisoning. After breaking 2 ribs, a severe attack of gout occurred. Widal believes the function of the liver to be at fault. The prognosis is good, though colchicum and the salicylates have no effect upon it. He intends to give suprarenal glands, to see whether uric acid will increase in the urine. [M. O.]

2.—Huchard reported a number of cases showing the abuse of digitalis and accidents following its use, especially in arteriosclerosis with hypertension. He also reported a case of chronic interstitial nephritis with peri-aortitis, in which sudden edema of the lungs appeared. The patient was bled and normal salt hypodermoclysis and enteroclysis saved his life. Digitalis was not given nor was it indicated. Arrhythmia with gastric symptoms is not to be treated with digitalis, but with milk diet, rest and theobromine. In arteriosclerosis the disease affects the heart and bloodvessels, but the kidneys are in danger. Alcohol and meat are poisons to patients with nephritis. Whenever symptoms of arterial hypertension exist, before signs of illness become manifest, stop meat and stimulants and order rest, milk and vegetables. This will prevent further progress of the malady. This Huchard calls physiological or functional therapeutics. [M. O.]

Original Articles.

THE POSITIVE DIAGNOSIS OF MENINGITIS,
PARTICULARLY TUBERCULOUS, BY MEANS OF
LUMBAR PUNCTURE.*By ALFRED HAND, JR., M. D.,
of Philadelphia.

The most difficult problems in pediatrics, as in other branches of medical sciences, are met with in the realms of diagnosis, and among the difficult diagnostic problems the determination of the existence or absence of meningitis stands well to the front. When meningitis exists, the symptoms usually present are headache, intolerance to light and sound, rigidity of the neck and back muscles, with more or less retraction of the head, strabismus, ptosis, vomiting and disturbances of the rhythm of pulse and respiration; there may also be convulsions, stupor, the hydrocephalic cry, the cerebral tache, constipation, sinking of the abdomen, exaggeration or absence of the knee jerk, ankle clonus, Kernig's sign and perhaps local palsies of transient or permanent nature. A case presenting all of these symptoms would undoubtedly be one of meningitis. But meningitis may cause only a few of these symptoms; and any of them may be present when meningitis does not exist. The acute infectious diseases give the greatest trouble in this line, especially pneumonia and typhoid fever in the case of both children and adults, while scarlet fever and measles at their onset and enterocolitis may be added to the list for children.

When the presence of meningitis is pretty clearly established, the outcome of the attack is then a question which arises, and the prognosis will be indicated if the diagnosis can go a step further and determine the variety.

While I wish to lay emphasis on the value of lumbar puncture in the solution of these problems, I do not wish to be understood as decrying the study of the clinical manifestations; for it may be said that the problems do not arise until the symptoms have been studied. The results of lumbar puncture then come as a complement to clinical study and may be compared to any of the laboratory examinations now so necessary, with this difference that the percentage of uncertainty is at a minimum in lumbar puncture. Thus, in a fractional percentage of cases it may happen that fluid will not flow: *if the needle is in the canal*, it may be that a flake of lymph is obstructing the lumen of the needle, or the increased pressure of fluid may be solely intracranial with adhesions preventing the access of the fluid to the spinal canal. But one instance of this has come to my observation. If the fluid does not flow, no judgment can be passed upon it, and the operation of lumbar puncture may be said to be incomplete or unperformed.

It is well, therefore, to bear constantly in mind that positive conclusions can only be based upon positive data.

Referring to the percentage of uncertainty in the examination of the fluid drawn by lumbar puncture,

positive results were obtained in 32 out of 37 consecutive cases, the results in 5 being classed as extremely probable. These results were as follows: Tubercle bacilli were found in 26, pneumococci were found in 2, meningococci in one, and 3 were normal specimens; probable diagnosis was made in the remainder, cocci being present in 2, one being apparently serous meningitis and 2 an infectious meningitis of undetermined origin.

It has been suggested that the percentage of sugar in the cerebrospinal fluid (3 to 5 centigrams in 100) being lower than that in the blood (5 to 15) shows that the fluid is a secretion of the lining membrane rather than a mere transudation. It is therefore reasonable to infer that any inflammation of this membrane will so alter its function as to become at once apparent in the fluid.

The changes which occur in the cerebrospinal fluid as a result of meningitis are diminution or absence of sugar, increase of albumin and, except in simple serous meningitis, the presence of leukocytes, bacteria and frequently endothelial cells.

Sugar. As far as my results indicate, the presence of sugar, when other signs show meningitis, is suggestive of tuberculosis; its absence does not exclude tuberculosis, for in 3 cases tested with phenylhydrazine it was completely absent from the fluid, tubercle bacilli having been found, and the autopsy in one case confirmed the diagnosis. In another case the first tapping gave no reduction of one cc. of Fehling's solution with 5 cc. of fluid; 6 days later there was a partial reduction, bacilli having been present in each lot of fluid. Since then, I have used the phenylhydrazine test exclusively, as the amount of fluid for examination is usually not great. Complete absence of sugar is said to be the rule in all the other forms of meningitis, except the serous, in which it is much diminished.

Albumin. The normal amount of albumin in cerebrospinal fluid is said to have a maximum limit of 0.25 part in 1000. In estimating the albumin, I have used the urine centrifuge tubes, adding to 10 cc. of the fluid 1.5 cc. of acetic acid and 3.5 cc. of a 5% solution of potassium ferrocyanid, allowing it to stand for an hour or two and then centrifuging to a constant level; this gives the percentage by bulk, the corresponding equivalent of 0.25 per mille being about 1.9% by bulk. Several normal specimens have shown not more than 0.5% by bulk, while ordinary meningitis gives 4% or 5% and tuberculous often runs as high as 9%, one specimen having contained 16%.

Leukocytes. Some writers, especially Wentworth, have attached much importance in diagnosis to the varieties of leukocytes present, the polynuclears being in the majority in nontuberculous meningitis and the lymphocytes in excess in tuberculous; some observers have failed to confirm this and Bendix and others have reported nontuberculous cases in which the lymphocytes were in the majority; it has been said in explanation of this that any meningitis becoming chronic would show an increase in the lymphocytes; however that may be, unless those cases can be definitely proven to be nontuberculous, much importance must not be attached to them, for they

*Read before the Philadelphia Pediatric Society, May 13, 1902.

are in the category of furnishing negative results on which to base positive conclusions. My own experience is that in some fields of a given slide a differential count is often difficult or impossible, owing to evident distortion of the cells in the process of mounting, but that, when the handling has been very careful and the nuclei are distinct, a differential count is of great value; I have also been able to make fairly accurate differential counts in 18 of the tuberculous cases; in 16 the percentage of lymphocytes was between 85% and 99.6%; in one the percentage was 65 and in another the specimens from two tappings gave 35% and 85% respectively. It would seem then, that the rule is not without exception and that the possibility of a given specimen being the exception prevents the differential count from giving positive data upon which to base positive conclusions. It does not seem to me that the chronicity of the cases had any bearing on the proportion of the lymphocytes except that in a few of the nontuberculous cases the polymorphonuclears showed more extensive degenerative changes than the lymphocytes, so that it may be possible, although I have not seen it, for the former to disappear before the latter; the polymorphonuclears were in excess in all the cases in which tubercle bacilli were not found and one of these patients, tapped after an illness of several weeks and giving a clinical picture of tuberculous meningitis with rigidity, strabismus, emaciation and stupor, improved decidedly after the puncture and recovered completely. In the two cases of tuberculous meningitis giving a low count of the lymphocytes, the only point of difference from the other tuberculous cases appeared to be in the number of bacilli present in the fluid; in these two cases the bacilli were very few in number and found only after a long eye-trying hunt; and yet there is not always a direct relation between the number of bacilli and the lymphocytes, for the slide giving 99.6% of the latter had an average number of bacilli, while the one giving 99% had countless numbers of bacilli in every field.

Bacteria. The bacteria which I have found have been the tubercle bacillus, the pneumococcus, unidentified cocci, and an intracellular diplococcus, probably the meningococcus, which did not grow on bloodserum or agar. In several cases the tubercle bacilli were associated with cocci, so that the mere presence of other germs does not exclude tuberculosis. It would not, therefore, be justifiable, having given a fluid containing cocci, an excess of lymphocytes and perhaps a trace of sugar or none at all, to attach any importance to the failure to find tubercle bacilli and to say that the case is not tuberculous but due to cocci; nor, on the other hand would the excess of lymphocytes and the trace of sugar be sufficient grounds for a positive diagnosis of tuberculous meningitis. I believe, however, that, with the technique to be described later, tubercle bacilli will be found in at least 96% of tuberculous cases on the first examination. As stated above, they were found in 25 cases; the first examination showed them in 23; it required a second examination in 2 to find them, but in 1 of these the technique could not be perfectly carried out; in 5 of the 23 puncture was

done twice, bacilli being found each time; in one, 3 examinations were positive.

Technique. The careful observance of a proper technique is of the highest importance, for until I used the method to be detailed, I had 100% of failures in about half a dozen cases which, of course, are not included in the above figures. I do not claim originality for the method of examination, as Fürbringer had practised the first step before I had hit upon it. The method is as follows: The fluid should be allowed to drop from the needle into a sterile test-tube, which is then stoppered with cotton and allowed to stand for several hours, or until a strand of fibrin has formed; this occurs in from 1 to 6 hours, and it either settles to the bottom or reaches from the top of the fluid down to the bottom, spreading out in a fan-shaped delicate film. A straight platinum needle, not a loop, is touched to one edge of the fibrin, the adhesion being very firm; the fibrin is then transferred to a slide, care being taken to tip the test-tube so that the fibrin constantly floats in liquid; a few drops of the fluid are to be poured with the fibrin on to the slide, for, if the fibrin emerges for but an instant from the fluid, it will either roll up into a cord through which nothing can be seen or it will wrap itself so tightly around the platinum needle that it cannot be detached; to prevent this, the edge of the test-tube should be flanged and not straight; when once on the slide and floating in the fluid, it can be carefully separated from the tip of the platinum needle with the help of an ordinary needle or pin; the excess of fluid is drained off from the slide and the remainder is evaporated by gentle heat, it being not only unnecessary but usually fatal to the success of the examination to press the fibrin between two slides; the film is fixed by heat, stained in the usual manner and then carefully gone over with a mechanical stage. A point for the protection of the examiner is worth mentioning; all of the germs are not caught in the fibrin, but some float free in the fluid, and as it is well to flood the slide even to the risk of overflowing, a blotter or piece of filter-paper placed beneath the slide will absorb both the fluid and the stray germs, and disinfection is then easily accomplished by combustion; if the blotter is dark in color, the film of fibrin can then be seen much more easily and located on the slide. The next step in the examination is the taking of cultures; in the above series, cultures were obtained of pneumococci and of staphylococci twice each, all the other cultures remaining sterile. After the chemical examination, for which 5 cc. will suffice, the remainder can be used for inoculation into guinea-pigs if this is deemed advisable; this is hardly necessary if tubercle bacilli have been found, but it is very desirable in all other cases and should be carried out, if possible, for then the exclusion of tuberculosis rests on unassailable ground; in but two of my nontuberculous cases were inoculations made. In the above series the nontuberculous cases did not show the fibrin-formation in anything like the degree that tuberculous cases did, in the former there usually being a scanty yellowish-white sediment of leukocytes at the bot-

tom of the test-tube extending for a short distance up the sides.

From the above experience it seems safe to conclude that when meningitis is suspected lumbar puncture will definitely determine whether or not it exists and that, if proper technique is observed, it can be told in the vast majority of cases whether the process is tuberculous or not.

MUNICIPAL WATER-SUPPLIES AND THEIR EXAMINATION.

By WILLIAM G. BISSELL, M. D.,

of Buffalo, N. Y.

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One of the greatest problems which, at the present time, confronts municipalities, no matter whether they may be large or small, is the providing of an adequate supply of a pure and wholesome water. The value of such a supply in its relation to the health and prosperity of a community has long been recognized and without such measure fairly well regulated no section can be prosperous either from a healthful or commercial standpoint.

Modern study and investigation have demonstrated the intimate relationship existing between drinking-water and certain forms of disease. When one considers that water is the main constituent of the human body and the principal element in the composition of all animal and plant life, it is easy to understand how important it must be to have this chief supporting factor free from harmful material, so that when it is ingested it will not cause a deterioration in the final product. There is not a form of animal or plant life that will long survive if the water used in their propagation contains material that impairs the health and engenders disease. Appreciating this fact, it is not surprising that the human body, which is the highest form of organized tissue elements, will not tolerate the ingestion of impurities in water. The extreme sensitiveness of the human system can be noted when one recalls the unpleasant effects that so frequently occur when traveling and using the water of different localities, which do not in themselves contain bacterial impurities, but differ in their composition, as relating to their degrees of "hardness" and "softness."

The two main diseases transmitted through the use of impure water, and therefore termed "water-borne" diseases, are cholera and typhoid fever. In addition to these ailments there are diarrheal conditions, not in themselves of a specific character, that are said to result from the continued use of a moderately polluted stream.

It would be tiresome to enumerate and describe the epidemics of disease, and particularly those of typhoid fever, that have occurred through the use of contaminated water, but there is one astonishing point that is worthy of emphasis, i. e., when such epidemics do occur and have subsided, the public, as a rule, rarely heeds its meaning. How often epidemics of typhoid fever follow one another in the same locality with little comparative effort on the part of the public to remedy the evil!

I have in mind at the present time the city of

Niagara Falls, in which more typhoid fever occurs than in any city of its size in New York State. They have drunk the sewage of Buffalo for years and up to very recently very little active effort has been made to remedy the evil. The absurd notion of many of their prominent citizens is that, if they took their water from the Canadian side of the Niagara River, it would materially differ from their present supply, which is taken from the American side of the same stream. The city of Lockport is also likely to be hoodwinked. Some promoters have suggested the advisability of tapping the Niagara River at or in the near vicinity of Tonawanda. From what has been stated, it will appeal to any one familiar with the situation, that such a procedure would furnish a water-supply even inferior to that at the present time in use at Niagara Falls. Lockport would in such an instance get the sewage of Buffalo in a much less diluted form than does Niagara Falls.

Before deciding upon a source for a water-supply, both practical and scientific means of investigation should be employed and the results carefully considered. With "practical" I mean the question of economics, for certainly the price to the consumer should be considered.

It may be argued that a municipality should drink pure water, irrespective of the price. Such is true, but it must be remembered that it can be accomplished under many differing conditions. For example: The city of Buffalo pumps its supply from the Niagara River. It is practically the water of Lake Erie that is supplied to the consumer. The water of Lake Erie contains a certain amount of sewage and is therefore more or less polluted. The city of Buffalo undoubtedly obtains a considerable amount of its typhoid from this source. Such water can be made absolutely safe by household purification during certain seasons of the year. If each household would observe this precautionary measure, the amount of typhoid fever occurring in the city of Buffalo would be limited to that imported from other localities. This mode of procedure is at the present time the most practical means of purifying Buffalo's water-supply, as it is less burdensome to the persons already subjected to a heavy taxation.

Of scientific measures, the *engineering, chemical and bacteriological* means of investigation are essential. A competent hydraulic engineer can determine the means necessary for the distribution of a water-supply throughout a municipality. The water analyst can determine the exact quality of the water so distributed. In determining the quality of a water, both chemical and bacteriological examinations are of value, but, from the strictly sanitary standpoint, bacteriological examinations will be of the greatest service.

As regards regulating the dissemination of water-borne diseases the amount of organic material contained in a water is of little importance, providing that organic material does not represent the elements of sewage, and chemical examination alone cannot always determine this question.

In olden times chemical analyses were most relied upon to detect impurities in water. Most persons, not familiar with the work, consider that it is only necessary to submit a sample of water for chemical analysis and that the chemist, without any knowledge of the source whatever, can determine whether it is pure and wholesome. Unfortunately, the problem is more complex and much less exact. Frequent analyses have been and are made along this plan, but a better understanding of the subject has demonstrated its superficiality. No person is competent to render an expert opinion as to the purity of a water, from the chemical standpoint, unless he be thoroughly familiar with the local conditions influencing the source of supply. Surface drainage, underground geological structure and various kinds of organic matter will produce variations in chemical results, which, if not understood, will be interpreted as impurities and, on the other hand, slight pollutions with sewage are not capable of detection by chemical means of analysis.

Some two years ago this fact was demonstrated to the satisfaction of a member of the Board of Health of a certain city near Buffalo. Some work had been performed toward the betterment of the water-supply by a certain chemist. Water had been examined and reports submitted without a knowledge of the conditions surrounding the source of the water-supply. Certain eager members of water companies were the ones instrumental in having the samples examined. The writer was called in consultation by the Board of Health of the city. After a careful examination and inquiry into the facts it became apparent that the results of the examination of the water were entirely worthless as being in any measure indicative of the purity of the supply.

It was impossible to convince one of the members that such was the situation, so the following measures were resorted to in order to demonstrate to this member of the Board the total unreliability of chemical examinations when conducted in the manner stated to determine the presence or absence of pollution in water.

Two samples were prepared, each representing one-half gallon of water.

One was a sample of water from the Niagara River, taken from a tap at Buffalo, after it had passed through a sterilized filtering-stone of a Pasteur-Chamberlain filter. To this sample there was added a small proportion of salt.

The other was a sample of Niagara River water collected at Niagara Falls (and in which it was easy to demonstrate the colon bacillus in cubic centimeter amounts of the sample) into which there was introduced a small amount of human excrement.

No data were sent with either sample, except that they were said to be "river water."

Reports came back that the source from which the first sample was obtained was "unsafe for use on account of the high percentages of chlorides and that the second sample was "wholesome for household use."

In chemical examination of a water, to determine

the relative degrees of purity, the amount of free and albuminoid ammonia is determined, as is also the amount of oxidizable organic matter, chlorine, nitrites and nitrates. Every water, or at least that from a limited locality, has its normal local standards of most of these ingredients. Hardly a water is found free from chlorine, and this is usually in the form of common salt. Raw nitrogenous material, no matter whether it be of an animal or vegetable origin, is represented by the amount of albuminoid ammonia to be found. "Albuminoid ammonia" is the food of many water bacteria and through their agency is converted into "free ammonia." No sooner has free ammonia been produced than it is attacked by another class of microbes which first convert it into nitrites and then into nitrates. Thus, in the chemical changes in water there are represented three distinct stages representing the conversion of organic material, perchance harmful, into harmless compounds, each less capable of furnishing a suitable pabulum for disease-producing bacteria.

Organic matter in itself is dangerous only on account of the micro-organisms likely to be associated with it. It is not necessary to be able to demonstrate the presence of the typhoid bacillus in water to prove that there is danger in drinking it, but to show that it is possible, in small quantities of a sample, to demonstrate the organism of undoubted intestinal origin. A water may show a relatively high proportion of organic matter and yet be perfectly free from sewage. The same likewise applies to the chlorides. On the other hand, if these represent urinary and fecal products, quite the contrary is true. The chemist can as yet throw no positive expression upon the character of organic impurities. The determinations are *quantitative*, not *qualitative*. Too much stress cannot be laid upon the necessity of knowing the exact local standards, in order to have chemical examinations of much value. The result of frequent analyses should be considered rather than that obtained in any single examination.

What is desired above all else in the examination of water is to ascertain something of the possible source of the organic material it may contain. In this respect the bacteriologist can render a far greater service than the chemist.

Much discussion has taken place at the various scientific meetings as to how much importance can be placed upon the finding of an organism known as the bacillus colon communis in a public water-supply.

I desire to go on record as stating that, in my judgment, after a practical experience of nearly ten years of active work, during which time I have had the opportunity of carrying on investigations with many different water-supplies, I do not think there is any test more valuable as to indicating the relative degrees of purity of a water than that devised by Stone for the detection of the colon bacillus.

The continued presence of the colon bacillus, in

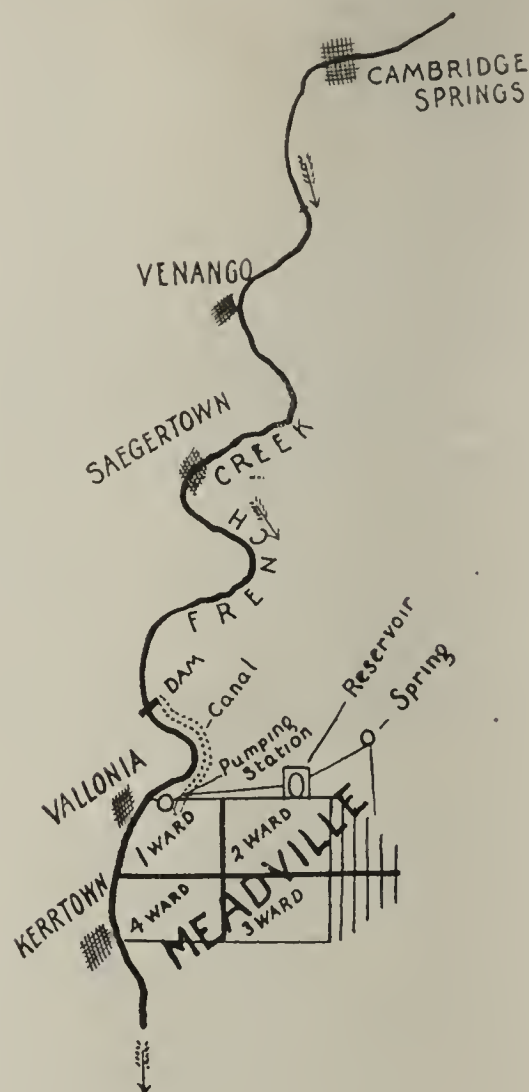
quantities of water not to exceed 1 cc. in amount, should be considered as representing a "danger signal." I do not wish to be understood as stating that all waters containing the colon bacillus are sure transmitters of disease at all times. On the contrary, waters highly polluted with sewage have been drunk for a considerable period of time with apparently no evil results. A person can carry a virulent diphtheria bacillus in the throat and yet not become stricken with the disease for a continued period of time, and perchance not at all. From the sanitary standpoint the presence of the diphtheria bacillus is the signal for hygienic activity along the line of preventive medicine. The presence of the colon bacillus in a water-supply is but an indicator of what may happen. It is an undisputed fact that this bacillus is the constant inhabitant of the intestinal tract of most animals and man. According to Amyot it is not found in the intestinal canal of fish. This organism is no doubt widely distributed. Considering these points I have yet learned of but few instances of the positive demonstration of this organism in a public water-supply in which it could not be traced as representing excrement. Abbott has drawn attention to its presence in a spring or well-water into which there was "no possible chance of sewage gaining entrance." It might in this instance represent the drainage of farm lands, introduced by some person, or be carried into the water by dust. No matter which of these explanations may be the true one, its presence in the water should be considered as a "danger signal." It is but necessary to rehearse practical illustrations occurring in the writer's experience to demonstrate this point.

A certain spring water, remote from any dwellings or lands under cultivation or used for grazing purposes, was proposed by a certain water company to furnish the drinking-water-supply for a small village mostly composed of summer residences. Chemical examination of the water revealed nothing suspicious, but bacteriological examinations demonstrated the continued presence of an organism corresponding to the colon bacillus. A most careful sanitary inspection of the territory failed to reveal a possible source for this organism. The spring was protected by masonry and a small pumping station established, by means of which the water was distributed to about twenty different cottages. During the latter part of August of the second season of its use nine of the twenty families had members afflicted with typhoid fever. A careful investigation of the milk- and ice-supply failed to reveal anything representing a possible source of the infection. The use of the spring-water was temporarily discontinued and the typhoid ceased. It is interesting to note that the only cottages in which typhoid fever occurred were supplied by this water. It is fair to assume that the spring was the source of the infection, but thus far the source of its contamination has not been ascertained.

It is often very difficult, not only in sanitary water work but in other lines of sanitary investiga-

tion, definitely to localize the primary source of an infection.

Another practical illustration of the continued presence of the colon bacillus in a water-supply representing danger occurred at Meadville, Pa.



This city of about 10,000 inhabitants pumps its water-supply from an unnavigable stream known as the French Creek. There is situated on French Creek some fifteen miles above Meadville, a health-resort known as Cambridge Springs. The principal hotel of this village (Hotel Rider) sewers into the French Creek. These conditions have existed for a great many years and Meadville has drunk the sewage-infected water and yet enjoyed an extremely small amount of typhoid fever. It was not until two years ago, when there were imported one or two cases of typhoid fever into the Hotel Rider at Cambridge Springs, that the "danger signal" of Meadville's water-supply was practically manifest. As a result, Meadville passed through an epidemic of typhoid fever such as had never been known in that section of the country. Water examinations from the chemical standpoint revealed nothing to cast suspicion upon the water. Bacterial examinations demonstrated the colon bacillus in abundance. As soon as the typhoid patients at Cambridge Springs recovered, Meadville's epidemic ceased. During the epidemic, and at the time the writer was called in consultation, the public were notified of the existing conditions. Many heeded the warning, but as many did not, and the majority of the population of Meadville is to-day drinking the sewage of

Cambridge Springs. The only factor necessary to produce another outbreak of typhoid fever at Meadville is to import a case or two of typhoid fever into the Hotel Rider at Cambridge Springs.

The practical value of the detection of the colon bacillus in well-water-supplies was demonstrated in the method employed to eliminate typhoid fever from the Chautauqua Assembly. In the year 1889 Chautauqua had typhoid fever cases numbering into the hundreds. In the early part of 1900, at the opening of the Assembly, the writer made a thorough sanitary investigation of the premises and examined 95 samples of water from as many different wells. An organism responding to Stone's colon test was found in nearly 50 per cent. of these samples and the wells furnishing the same were closed. Last year Chautauqua escaped with a single case of typhoid fever.

Many other instances could be given of the practical utility in the use of Stone's test for the colon bacillus. It possesses the advantage of being rapid and, in the writer's experience, is thoroughly accurate. I do not agree with Prescott that there is any great amount of difficulty in distinguishing between the colon group and the lactic acid organisms. The colon bacillus in milk must not be mistaken for the lactic acid bacillus. The chemical production of lactic acid by an organism can alone be taken as a differentiating feature. The biological features of the colon organism are subject to changes due to influences at the present time not understood. The power of indol production is, in the writer's experience as well as in that of Moore, of Cornell, a very uncertain reaction with the colon bacillus. Failure to obtain this reaction in the confirmatory part of Stone's method does not exclude the presence of the organism, but simply casts doubt as to its confirmation. In such instances other samples must be examined to arrive at a decision.

Up to the present time Stone's method has been tried on the following organisms, cultures of which have been obtained from several different sources, with the result that none of them survived the Parietti check solution. This, I believe, conforms with Stone's results.

Bacillus pyocyaneus.

Bacillus prodigiosus.

Bacillus liquefaciens.

Bacillus fluorescens putidus.

Bacillus acidi lactici (cultures from six laboratories).

Bacillus lactic ærogenes.

Bacillus ærogenes capsulatus.

Cultures of hog cholera received from Moore, of Cornell, survived the test.

My mode of procedure is as follows:

As soon as a sample of water is received, steps are taken to ascertain the following points:

1. The total number of bacteria per cubic centimeter.
2. The determination of the presence or absence of the colon bacillus.

3. If the colon bacillus is present, an estimation of the number per cubic centimeter.

It requires but seventy-two hours to detect with a fair degree of certainty the presence of the colon bacillus, while specimens, which do not contain glucose-fermenting bacteria, can be declared negative in much less time.

The total number of bacteria is estimated in the following manner: The bottle containing the water is thoroughly agitated and one cc. of the sample to be examined is mixed with 99 cc. of a previously sterilized distilled water. A small flask is usually employed. This water mixture is thoroughly agitated and one cc. plated in gelatine melted at 40° C.* The amount of water in this plate represents 1-100 cc. of the original sample. The plate is kept at room temperature, which is 22° C., and allowed to remain 96 hours. The number of organisms on the plate multiplied by 100 represents the approximate number of individual bacteria contained in each cc. of the original sample.

The method of colon determination is as follows:

A. Three Smith's tubes, filled with a 2 per cent. glucose bouillon, are inoculated with one cc. of the water to be examined into each tube and grown at a temperature of 38° C. for 24 hours. If no gas is formed in any of the tubes, the absence of the colon bacillus is shown, but if from 25 to 70 per cent. of gas is present:

B. Three tubes containing bouillon (neutral to litmus), into which 3-10 cc. of Parietti's solution has been added to each tube, are inoculated with $\frac{1}{2}$ cc. of the contents of "A" and allowed to grow for 24 hours at 38° C.

C. A single Smith's tube is inoculated with 1-3 the contents of "B" and allowed to grow at 38° C. for 24 hours. (If there is no gas formation in this tube, we may be sure that the gas producer was not the colon bacillus). If gas is produced, it should be further confirmed by:

D. Ascertaining the gas formulæ, which should be $H-Co_2=2-1$.

E. A pure culture of the colon bacillus can be obtained from "B" by plating out the organisms and the following tests applied:

1. Gelatine stab for 7 days at 22° C. not liquefied.
2. Litmus milk shows acidity and coagulates in 24 hours at 38° C.
3. Dunham's double peptone—indol production in 3 days at 38° C.
4. Morphology in bouillon—sluggishly motile (?) bacillus.

The estimation of the numbers of colon bacilli in a sample are determined by making, at the same time the plates are made to determine the number of bacteria in the sample, litmus-lactose-agar plates, $\frac{1}{2}$ cc. of the original water sample should be placed

*The writer is a disbeliever in efficacy of any of the procedures for the standardization of gelatine or any other media. Equally as good results can be obtained by the use of ordinary litmus and other test papers as can be obtained by the titration method with phenolphthalein. Organic compounds are unstable as to their reaction and always will be, and the effort to get an exact reaction is useless. Different lots of media will differ even if tested in the same manner and the same lot of media will differ in its reaction from day to day.

in each Petri dish and allowed to incubate at 38° C. for 24 hours. The colon organisms will be identified by the red colonies on the blue media.

In this connection it might be interesting to give the opinions of a few prominent workers in sanitary water analysis as regards their interpretation of the demonstration of the colon bacillus in a water. The opinions, except where noted, were expressed in personal communications to the writer.

Whipple, Mt. Prospect Lab. Brooklyn:—

"It may safely be taken for granted that the continued presence of the colon bacillus is a sign of dangerous contamination, but the occasional presence of this organism cannot be so interpreted. Its presence at any time indicates that the source of it is open to contamination, but the frequency and the amount of water required to be tested in order to obtain a positive result must be taken into consideration. The presence of the colon bacillus in a well-water should always condemn it."

Hill, Lab. Board of Health, Boston:—

"I should say that the absence of the colon bacillus after exhaustive search indicates the absence of pollution, whereas its presence, and especially its frequent presence, when but 1 cc. at a time is examined, requires immediate and careful investigation to determine its source. Almost certainly this source will be found to be the direct access of animal or human feces. Further steps should then be taken."

Vaughn, Ann Arbor, Michigan:—

"Formerly I condemned waters that contained the colon bacillus, but, as I stated in Chicago, while I pronounced such waters as contaminated with sewage, I state there is no evidence that they can cause any specific disease."

Mason, Troy Polytechnic Institute:—

"I believe that the bacillus colon communis is very widely distributed in nature. I therefore place value upon its finding in a relative rather than in an absolute manner. I consider 1 cc. the proper amount of water to test, and several tubes of sugar medium should be used. I regard it necessary to have practically all the tubes so shown exhibit indications of the presence of the bacillus in order to make the finding a serious matter. I am strongly inclined to believe that in this, as in many other things, a man's opinion must be based upon the breadth of his own experience rather than upon what he reads in other authors."

Winslow, Mass. Institute of Technology (article in *Journal of New England Water Works*):—

"When the colon bacillus is found in such an abundance as to be isolated in a large proportion of cases from 1 cc. of water, it is reasonable proof of the presence of serious pollution."

Smith, University of Pennsylvania (quoted in *Bacteriological Analysis of Water* by C. E. A. Winslow, September 18, 1901):—

Speaking of the colon bacilli: "They are widely distributed in nature mainly because fecal discharges

of human beings and animals are a common thing on the soil."

Klein & Houston, Local Gov. Board, London, Report, 1898:—

"Diluting sewage with distilled water and testing the mixture, a proportion so small as to be quite indistinguishable by chemical analysis was readily detected by the colon test."

Ernest Wende, ex-Health Commissioner of Buffalo and in office at the time of Buffalo's typhoid epidemic in 1894 (communication dated April 13, 1901):—

"The bacteriologist, during his regular examinations, noted the change in the water and discovered the existence of the elements of sewage. On receipt of these facts, I started an investigation to determine the source of the polluting substance and found that an old intake which had practically been abandoned had been opened by the water department (I did not at the time know of the existence of this intake), which drew the water of our ship canal directly into the mains and distributed it throughout the city. This inlet I ordered closed, but it was too late, and in a few days following the epidemic began and in one day no less than 100 cases of typhoid fever were reported. I consider the bacteriological examination of water of the greatest importance as regards the detection of such pollutions."

As can be seen by the above statements, it is the experience of nearly all who have had a practical connection in the application of the colon test with waters that its determination by proper methods and under certain conditions surpasses chemical means of analysis, both in delicacy and as an indicator of sewage pollution, and that it is the greatest accessory in determining the relative degrees of safety under which a water-supply may be used for household purposes.

THE TREATMENT OF PULMONARY TUBERCULOSIS.*

By WILLIAM A. CALDWELL, M. D.,
of Morgantown, W. Va.

Pulmonary tuberculosis presents such a varied symptomatology and so many phases during the months or years the patient suffers from it that it is impossible to give in a short paper little more than a general outline of the treatment, pointing the way to the many details which must be carried out.

Before beginning treatment it is well for us to remember five points that we may work with more enthusiasm toward a given end—a cure.

1. It is a preventable disease—by destruction of the excretions known to contain the bacilli, and by keeping the organs and tissues of the body at their highest physiological function.

2. It is a curable disease, as shown by the reports of many sanatoria in every part of the world and by post mortem statistics.

3. There is no specific climate, although some climates have greater healing influences than oth-

*Read at the annual meeting of the West Virginia Medical Society, May 22, 1902.

ers, and it may be successfully treated in all climates.

4. There is no specific medicine, only medicine which favorably influences the disease.

5. To obtain the best results, an early diagnosis is necessary. We should not depreciate the great value to be obtained from always examining the sputum, but aim to make bacilli found as confirmatory rather than diagnostic.

For the convenience of study, treatment may be divided into prophylaxis, hygienic-dietetic treatment, symptomatic treatment and drug treatment.

Prophylaxis.—Pulmonary tuberculosis is a feebly infectious, communicable disease, but not contagious. The sputum being the chief source of the infection, it is thoroughly destroyed by incineration, there is little chance for the patient to infect others or himself become re-infected. Re-infection by faulty methods of taking care of the sputum or by carelessness is perhaps more often the cause of our lack of success in treatment than we are willing to admit. Among the most fruitful sources of re-infection are: Expectorating into handkerchiefs and clothes which are kept about the person, and swallowing the sputum. Other sources are: The beard, the bed-clothing and the patient's clothes. To obviate the danger to himself and others he should use a spitting-cup, such as Seabury and Johnson's, at the bedside or on the veranda and, when abroad, a pocket spittoon, such as Knopf's. The sputum should never be swallowed, the beard should be shaved off or cropped close, the bed-clothes, the room occupied and the wearing apparel should be frequently disinfected with formaldehyde. The comforters and blankets should be protected by a long sheet-end, which may be washed every day. The hands should be frequently washed, especially before taking food, as Baldwin has shown the possibility of infection from this source.

Hygienic-dietetic Treatment.

Hygiene and diet may best be treated together, as upon this treatment we put our chief reliance in the cure of the disease. The hygienic-dietetic treatment remained theoretical with here and there a few isolated cures until translated into successful practice by the vigor and perseverance of Drs. Brehmer, Dettweiler and Walther. These three German physicians with untiring efforts have familiarized the minds of the profession with the details of the treatment and have shown by their statistics such excellent results that all over the world sanatoria are being built for the treatment of tuberculosis by this method. In the United States we are indebted to Dr. E. L. Trudeau for the impulse of the new therapeutics.

The principles of the hygienic-dietetic treatment are:

1. The patient lives continuously in the open air.
2. His nutrition is maintained, by all available means, at the highest point.
3. Rest, suitable to the patient's condition and the stage of the disease.
4. All means consistent with the patient's condition are used to harden the tissues and render them impervious to the influence of the tubercle bacillus.

The first question we meet when we speak of an open-air life is climate. While more cures will be effected under the same treatment in such climates as the Adirondacks or the Rocky Mountain region, yet it has been proven all over the world that it may be cured by the aid of the open-air method in any climate. Bowditch has shown at the Sharon Sanatorium, eighteen miles from Boston, and at the Massachusetts State Sanatorium at Rutland, that it can be cured in that harsh climate, reporting as many as 81 per cent. of incipient cases arrested, which, according to his definition, practically means a cure. Pure air is one of the requisites, and pure air free from miasmatic influences may be found in almost any elevated region distant from centers of dense population. "A pure, untainted atmosphere at all times and places is one single condition which nothing whatever must interfere with or set aside." These words, written, in 1855, by Sir Henry McCormick, who was a believer in the curability of tuberculosis, should be one of our guides to-day, and the patients should breathe not only pure air, but as much pure, sun-warmed air as possible.

If the patient has not been accustomed to spending much time in the open air, he should be gradually submitted to the influence of an out-door life or to open windows. If there is much fever, he should be confined to bed with open windows. He should spend nine hours in the open air, ten hours in bed with the windows open and as much as possible of the other five hours in an out-door life. Rain, fog and zero-weather are not contra-indications for the open-air treatment, but he should always be careful to protect himself from the elements and especially from chilling.

In order to lead an open-air life, the patient should wear flannels appropriate to the season and climate, winter and summer. As he sleeps with open windows, he should wear in winter the same weight flannels at night, having a suit for night wear and one for day wear. The bed in winter should have either two mattresses or a comforter under the sheet, top clothing to make it comfortable, but not too heavy, and an extra comforter always at hand for changes of the weather. He should never permit himself to become chilled, as this may cause more injury than can be overcome by weeks of judicious treatment.

For the rest-cure, on the veranda in the fall, winter and spring, he should wear a long top-coat suitable for the season, felt shoes, a steamer rug or heavy shawl carefully wrapped about the legs, protecting the posterior vessels. The feet should always be kept dry and warm and the patient should sit where the air is in motion, but not close to an open window or where there is a strong draught. During his stay in the open air he should be taught to take frequent breathing exercises which should be simple in character.

The results of this open-air life are: It improves digestion, it quiets cough, it facilitates expectoration, there is more restful sleep, sweats and fever gradually disappear, the weight increases and every symptom of the disease is lessened.

Diet.

A majority of tuberculous patients have been eating and drinking but little for months, perhaps years, and there must be present disuse atrophy of the stomach. In other words, the stomach is too small to do the work required of it. Through the vagus we have had some nervous disturbance. In these cases, which are in the majority, the anorexia is purely functional and the patient should be made to understand that he must trust his stomach as his best friend. To increase the capacity, the muscularity and the motor function, which is generally depressed, according to Reed⁶, we should keep the stomach active by frequent feeding, gradually increasing the amount of nutritious liquid food, but not quite as great an increase in solid, until this increase amounts to more food than was taken in health. Suralimentation should be reached at the earliest period possible, and this will differ as to time and the amount of food ingested, according to the individual case. In these cases vomiting after taking food is purely functional and we should insist upon some modification of Walther's⁷ plan, which is to begin the meal over again.

The diet should be a mixed one and the amount of food ingested every 24 hours should be greater in amount, with a larger variety, than was taken in health. Better results will be obtained from six meals a day, three regular meals and three liquid meals.

A glass of milk should always be taken with each meal. The three liquid meals should be taken at 10.30 A. M., 3.30 and 9.00 P. M. A very satisfactory liquid diet is one or two eggs, with a teaspoonful or more of sugar, thoroughly beaten and stirred in a glass of milk. Many times, when the patient rejects other solid or liquid food, he can take raw eggs and milk. The patient must be taught that the absence of the sensation of hunger should bear no relation to the amount of food he must take and which will be properly digested and assimilated. He should be taught that he must take food not from a sense of taste or hunger but from a sense of duty. If there exists a pathological condition of the stomach, the diet must be modified and the condition should be treated after modern methods.

When the exacerbations occur with fever, we should be careful not to reduce the diet too much, as it will be found to have little influence on the temperature.

The results of suralimentation, if the patient remains in the open air, are that the digestion, while sometimes a little rebellious at first, improves, the constipated habit, so common, is almost, if not entirely, overcome, the temperature is not disturbed and the patient gains every week in weight.

Rest.

Rest must be both mental and physical. All business and domestic worries must be removed and, if the patient can be taught the true meaning of the maxim of the great Brehmer⁸, "the best occupation for a patient is to labor to get well," success will be much greater. Complete muscular and nervous relaxation on a couch or a steamer-chair in the

open air economizes and stores up energy, reduces fever and aids nature in the healing process. Undoubtedly the toxins thrown off disturb the nerve-units or neurons and produce the peculiar nervous symptoms of a neurasthenic nature which can be, and are, suppressed by the patient in his hopefulness. The best treatment for the neurasthenic condition aside from tuberculosis has been found to be rest and feeding, and here we may serve a double purpose by the same means.

We should curtail the exercises allowed as the temperature ascends and, satisfactorily to ascertain the effects of exercise, a two-hourly afternoon chart is necessary. When the temperature is not above 100°, carefully graduated exercise may be allowed, such as walking slowly or driving in an open carriage. In certain subacute and chronic cases about 99.5° will be found as practically a normal temperature and there is no objection to moderate exercise. A temperature above 100.5° requires absolute rest on a couch in the open air or on a bed with open windows. Our rule should be, exercise before 1.00 P. M. and rest after that hour. We should remember, as Dr. Trudeau⁹ has well said: "What is moderate exercise for a man in health, means overexertion and exhaustion for the phthisical patient."

Acrotherapy and *suralimentation* are two of the most fruitful means of producing resistance on the part of the tissues. Among other agents, hydrotherapy is the most important, but must be judiciously used. The morning cold sponge or douche acts as a tonic not only to the skin but to the whole system, especially the nervous system. Its initiation should be with great care, and the plan suggested by Knopf¹⁰, dry friction, friction with alcohol, then water, then the douche, should be followed.

To produce the greatest resistance, either to the invasion of the bacillus or to its activity when present, every organ in the body must be kept up to its most perfected normal function.

Symptomatic Treatment.

Fever.—Long periods of rest in the open air reduce fever. Sponging with cold water is one of the most effective means of reducing fever, but must receive careful supervision. Drugs should be employed very cautiously. Acetanilid, antipyrine and phenacetine are among the best. A combination of phenacetine and caffeine in small, frequently repeated doses, when there is much fever with oppression and headache, will be found useful. Creosote has a place in the reduction of fever.

Hemoptysis.

Hemoptysis.—Two things which are nearly always done should not be done: To give ergot by the stomach and to put an ice-bag over the supposed site of the hemorrhage. Ergot does great injury to the stomach and, according to Dr. Osler¹¹, causes a distinct rise in the pulmonary bloodpressure, both of which we wish to avoid. Ice-bags do no good, but produce much discomfort and perhaps a degree of shock. We should enjoin absolute rest in bed, the patient lying on the affected side for the purpose of compressing the ruptured vessels, if possible, and to avoid the chance of drawing blood into the other

bronchus. Our best remedy is a hypodermic injection of morphine and atropine, which will quiet respirations and the heart's action, and put the patient in a restful mood.

Atropine alone will be found very useful. Calcium chloride in ten-grain doses may be given. Gelatine has been found to favor coagulation of the blood, and especially so when given by the stomach according to Wood¹². As much as 4 ounces in 24 hours may be given. Knopf's¹³ plan of giving potassium iodide in small doses in chronic blood-spitters will usually be found effectual. Ligatures or Es-march's bandages placed about the legs give temporary relief, as they lessen the volume of blood passing through the lungs. *Sweating* is one of the first symptoms to abate under the open-air treatment. Perhaps the most satisfactory drug is atropine, gr. 1-100 or larger. Other drugs which may be used to advantage are agaricine, zinc oxide and aromatic sulphuric or gallic acids.

Cough is a necessary part of the disease, but it may become troublesome, especially dry and irritating. We should avoid giving expectorants, if possible. Creosote and iodine, when inhaled, appear in some cases to do much good. Steam inhalations with eucalyptus or benzoin are useful. Heroin will many times act nicely. Coedine will be found as the most satisfactory drug. Small doses of potassium iodide will many times relieve the night cough due to lack of secretion.

Drug Treatment.

Our rule should be, either for the relief of symptoms or treatment of the disease, to give single drugs in small, frequently repeated doses, with a definite object in view rather than in combination. Combinations should be the exception rather than the rule. In no disease perhaps should we be more careful to give drugs, short of any marked physiological action, unless it is for the relief of some urgent symptom. In the lowered degree of vitality usually present, with the delicate protoplasm already disturbed by the influence of toxins, may we not by large doses produce a mild condition of shock not readily discernible?

Creosote is perhaps recommended by more authors than any single drug. The double distilled creosote of beechwood tar, according to Borroughs¹⁴, is the best. It reduces cough, expectoration and also fever¹⁵ slightly, and perhaps is useful as an intestinal antiseptic. It is best given in capsule, beginning with one minim. gradually increasing. A moderate dose will be found most useful. Under the creosote group are carbonate of creosote, guaiacol and thio-col, which favorably influence the disease.

Under the iodine-bearing drugs we have euophen, iodoform and potassium iodide. Euophen, which has given Flick¹⁶ such good results when used by inunction, has a most favorable influence. It may be given in one-grain capsules six times a day or used by inunction. Iodoform is useful both by inunction and by the mouth. We should not forget that potassium iodide, in small doses for short periods, is very helpful at times.

Harper¹⁷ reports most favorable results from syn-

thetic urea in 15-grain doses. Cod-liver oil is useful in those cases in which the eructations are not offensive or the stomach disturbed.

Tonics, such as arsenic, carbonate of iron and strychnine, are useful.

It is to be remembered that drugs have their uses and their limitations, and we must be careful to study their action in each individual case and never give them in a routine way.

Inhalations assist in allaying symptoms and in many cases appear to influence the disease favorably. Eucalyptus, benzoin, thymol, menthol, iodine, creosote and formaldehyde will be found useful. Huggard and Muthu¹⁸ recommend formaldehyde very highly, and I can say that it appears beneficial in some cases.

The best results in the treatment of pulmonary tuberculosis will be obtained under careful supervision in a sanatorium, but Dr. Osler has shown that good results may be obtained at home. Two things are essential in beginning treatment, an early diagnosis and the intelligent co-operation of the patient and his family. The physician who is most successful in treating the disease must inspire his patient with confidence, he must be a persevering teacher and kindly, but firmly, keep his patient in order, as there will be many discouragements in months of treatment.

BIBLIOGRAPHY.

1. Knopf's Prophylaxis and Treatment of Pulmonary Tuberculosis, page 31.
2. Biggs, Philadelphia Medical Journal, December 1, 1900, page 31.
3. Baldwin, E. R., Philadelphia Medical Journal, December 3, 1898.
4. Bowditch, V. Y., Paper read before Providence Medical Association, Dec. 3, 1900.
5. Henry McCormick, Nature and Treatment of Consumption, 1855, page 71.
6. Boardman Reed, Stomach Conditions in Tuberculosis, Philadelphia Medical Journal, December 1, 1900.
7. Harris and Beale, Treatment of Consumption, page 378.
8. Knopf's Prophylaxis and Treatment of Pulmonary Tuberculosis, page 100.
9. E. L. Trudeau, Practitioner, Feb., 1899.
10. Knopf's Prophylaxis and Treatment of Pulmonary Tuberculosis, page 226.
11. Wm. Osler, Practice of Medicine, 1st. edition, page 510.
12. H. C. Wood, Jr. American Medicine, May 3, 1902.
13. Knopf's Prophylaxis and Treatment of Pulmonary Tuberculosis, page 258.
14. Editorial, Therapeutic Gazette, April, 1902.
15. Anders' Practice, 5th. edition, page 328.
16. Flick, Therapeutic Gazette, Jan. 15, 1900.
17. Harper, Lancet, 1901, No. 11.
18. Huggard and Muthu. Philadelphia Medical Journal, Aug. 31, 1901.

SOME FEATURES OF MEDICAL AND SURGICAL STUDY IN LONDON AND BERLIN.

By A. S. GRIMM, M. D.,
of St. Mary's, W. Va.

The saying that "great bodies move slowly" applies to medical and surgical study in London most appropriately, although I do not mean to say by this that these studies are not thoroughly taught here, but, on the contrary, I wish to emphasize the fact that they are most perfectly taught.

John Bull here is the same characteristic John Bull as elsewhere. He does not take hold of some new theory or remedy because it is new, until he thoroughly investigates its merits and, if it appeals to him as good, he adopts it with a firm and lasting grasp, and, if not, he rejects it altogether.

The professors, in taking their classes through

the wards, take very great pains to give them thorough clinical instruction in auscultation, percussion and the usual physical diagnostic methods of making diagnoses.

Nothing is gone over hurriedly, but a careful examination is made of each patient and all points of any interest at all are gone over, every vital organ of the body is examined.

I have seen Sir Thomas Barlow, of the University Medical College and ex-physician to Queen Victoria, spend a half-hour around the bed of one patient in having the students examine him and then interrogated them on all points of interest relative to the case.

Each member of the class is thus taught to utilize his theoretical training in making microscopical and urinary examinations and of pathological specimens in general, and in this way he is thoroughly trained and grounded in physical diagnosis.

The result of this is that the English physician and surgeon is a good diagnostician, and its fruits are daily seen in the hospitals, as it is very rare, indeed, for an operator to fail to find his diagnosis verified when operating.

The English surgeon does not impress one as being a rapid operator, although I have seen some very rapid work done by such men as Bland, Sutton, W. H. Tate and others; however, he does impress one as being a conscientious worker, delving after truth, and not to make a display or show of his work.

By having tickets of admission to several large hospitals one sees work done by a great variety of different men and one gathers ideas which may differ somewhat in detail but which tend to give one a broader scope of thought and utility.

Thus, Professor Barker, of the London University Medical College, uses linen thread for intestinal sutures and other abdominal work. Prof. Ballance and others, of St. Thomas' Hospital, use silk, while still others use silkworm gut.

In operating for appendicitis Prof. Morris, of Middlesex Hospital, sutures the peritoneum over the stump of the appendix after excision, while in the Royal College of Surgeons some of the operators apply carbolic acid instead of suturing. In mastoid operations the grafting process is successfully performed at St. Thomas' Hospital and can be witnessed almost daily.

The amount of surgery done in London daily is immense, and the student who has a ticket admitting him to several hospitals is often puzzled to make up his mind as to the best way to utilize his time to the greatest advantage.

After seeing the list of operations to be performed he has to select the ones he wishes to see and let the others go for that day, and in his eagerness to see work done by different men he is likely to overwork himself unless he is very careful. Some of the large hospitals have, on an average, about one dozen operations daily, and quite a number of these institutions are modern and up to date, being well provided with fine operating amphitheatres and with all the appliances necessary for doing aseptic surgery, among which may be mentioned St. Bartholo-

mew, St. Thomas, University College and some others.

When a foreign student enters Germany for the purpose of post graduate study, his best way is to call upon the most noted medical and surgical men in the universities and they will take his address and send him invitations to their clinics, where they will treat him cordially.

After matriculating and entering upon a course of work he will be impressed with the thoroughness and system with which the work is done. The German mind, here as in everything else, seeks to know the cause of all phenomena with which it comes in contact.

They are a people that are eminently suited to deep research in medicine and surgery as well as any other line of work that requires untiring and protracted labor and toil, so it is no matter of astonishment that we find here so many deep investigators in professional work.

The German government, recognizing the good to the state by encouraging original research, provides for this by appropriating money for this purpose. When a professor is once appointed for this line of work, he has an enviable position, indeed, and some of them live in royal style, having fine palaces and are surrounded by all the comforts of life. He is highly esteemed and honored by his countrymen, and this is an incentive to others to improve their time and prepare themselves for similar honors. Thus the German ambition is thoroughly to prepare himself for his work and to be held in high esteem by his people and not so much for the purpose of wealth; this certainly is to be commended and would be fortunate for our noble profession if it obtained everywhere.

The average German has too much self-pride to ask for charity, consequently there is not so much free treatment in the hospitals as in some other countries; he also prides himself in keeping his body, clothing and living apartments clean.

I was told in Berlin that I might meet poor people there as elsewhere, but I would always find them a clean, happy and contented people, and I found this to be true.

It is in the field of bacteriology that Germany has made the greatest advance and has gone deeper into the subject of pathology and clinical bacteriology than any other nation of people. I was told in a large pathological laboratory in Berlin by one of its teachers that we could not expect to have made much of a record in this line of work in our country, as we were too young as a nation and, of course, this is true, but I earnestly hope to see the day in the not distant future that our national Congress will see the necessity of aiding our noble profession in like manner as does the German government.

Some of the most eminent men in gynecology operate entirely different from each other. For instance, Professor Landaugh performs vaginal hysterectomy by the clamp-method for controlling hemorrhage, and when he has finished an operation he will have a large handful of clamps hanging out of the pelvic canal. Professors Olshausen and Duhrsen do away with the clamps and ligate each

step of the operation, finally closing the vault of the vagina by suturing. The latter method would seem to be the better of the two, as the danger from infection would seem to be less than it would be to leave the vaginal vault open, containing a handful of clamps. However, Prof. Landaugh claims for his method as good percentage of recoveries as do the operators by the other method, thus proving that either method is successful in competent hands.

Speaking from a scientific standpoint, the surgery done in Berlin is excellent, yet one often sees surgical work done in the large clinics by a few operators that seems to be heartless, if not brutal, and the fortitude and patience with which the inmates bear it is something to be wondered at. For instance, one will often see an abscess of the superior maxillary antrum opened and an opening made by chisel and forceps as large as a half-inch in diameter into the cavity of the bone, requiring several minutes to complete the operation and causing excruciating pain, yet all this would be borne without an anesthetic, and a great many other operations equally as painful are daily witnessed.

The only reason that I can give for the tolerance of so much pain by these people is the high esteem in which the profession is held in Germany and that its opinion is respected.

Medical and surgical science here is built upon a true basis and everything is done radically according to scientific methods, but my impression is that the profession does not use nearly so much medicine as is habitually done in America.

In conclusion I would say that, while an American student can gather many useful things from the profession on the other side of the Atlantic, at the same time I am confident that, were some of the profession in Europe to come to our shores to learn our methods, they would return home much benefited.

AMYOTROPHIC LATERAL SCLEROSIS. REPORT OF A CASE.

By E. J. FRENCH, M. D.,
of Plainview, Minn.

This disease, though well known since Charcot's description of it in 1872, is not rarely met with by the neurologist, but is not so frequently encountered by the general practitioner. Although there are points which distinguish it from progressive muscular atrophy, it resembles that disease in some cases and in some stages of its progress. Irregular in its course in many cases, it is still usually differentiated from allied disorders, in most cases, without difficulty, if followed for some time. From the forms of simple bulbar paralysis it differs especially in that the bulbar symptoms are of late occurrence and follow involvement of other regions of the nervous system, with resulting symptoms in the limbs and trunk.

As to its etiology, no definite assertions have been made, each case presenting distinct causative influences. The disease is more frequent in males than in females and more cases appear in adult life than earlier. Exposure seems to be a factor in

some cases, as is also hereditary influence, although neither is constant in previous histories. Alcoholism and syphilis are recorded at times as probable causes.

Its pathology was clearly described by Charcot. The muscles are atrophied and show degeneration—fatty and fibrous—in regions supplied by the nerve regions which are affected. The motor nerves are degenerated, especially the terminal branches. "The anterior roots are atrophied in those sections of the cord corresponding to the wasted muscles." (Osler) "The ganglion cells of the anterior cornua are atrophic." (Anders). Sclerosis of the anterolateral tracts is found in a majority of cases, the direct cerebellar and ascending anterolateral tracts not being involved. The gray matter of the cord is not alone involved but that of the medulla also shows changes later in the course of the disease. "Cerebral changes also occur. The pyramidal tracts have been found degenerated through the pons and capsule, and in the motor cortex the large ganglion cells are wasted." (Osler).

The prognosis is always that of final death through exhaustion or some intercurrent disease. The symptoms are fairly constant, although variations occur. The report of the following case, which is very typical, is a clear clinical description of the disease.

CASE.—J. B., male, 61 years of age, native of Germany, married, nine children, farmer, served 10 years in German army. No history of syphilis or gonorrhea. No serious illness previous. For several years a heavy drinker. At times troubled with "rheumatism," articular during later years. Disposition irritable. Family history negative. History of last illness as follows: Healthy and robust till November, 1900, when he found that his hands were weak so he could with difficulty do milking, finally giving it up. At this time he consulted a physician. The weakness gradually extended to forearm, arm and shoulder. The hands became thin and skeleton-like. Then the arms became thin and flabby with twitchings of individual muscles and severe shooting pains at times. Irritability increased. Legs and thighs became involved. In 3 or 4 months speech began to show changes. Not able to feed or dress himself at this time. In April, 1901, took a long trip to consult a charlatan who promised a cure in 3 months. In July, 1901, I was called and found the following condition: General twitching of all muscles of arms, legs and back. Marked atrophy of same. Irregular shooting pains. Reflexes all increased. Ankle-clonus and chin-clonus present. Pupils normal. Inability to stand alone, with eyes open or closed. Lower jaw dropped. Inability to protrude tongue, which had marked tremor. Inability to articulate, excepting one word, "Ma." Could not masticate food. Extreme dysphagia, liquids causing great trouble, through inspiration of same and inability to cough. Breathing short and jerky, with an occasional catch, till cyanotic. Forearms in pronation with typical claw hands. Inability to change position of arms or hands. There was a fine tremor constantly present in hands, accompanied by a coarser one upon attempting to move them. Typical spastic gait was evident when assisted in walking. Face wore anxious expression and vocal sounds were shrill and whining. Weeping was of common occurrence. Hearing normal. Constipation present. Bladder normal, for age. Sphincters normal. Appetite poor. Thirst abnormal. Head fell forward. Sensation normal in all parts of body. At times spasm was observed in some sets of muscles. Constant drooling of saliva was present. Heart normal, pulse 66, arteriosclerosis marked, otherwise body normal. Restlessness and insomnia extreme.

Patient was given strychnine sulphate in full doses and appetite became good. The breathing became less jerky and more regular and there was less difficulty in swallowing. The finer tremors seemed to lessen also. Various

hypnotics were used. The emaciation progressed and death ensued from exhaustion in January, 1902, 15 months after first symptoms were noticed. This case developed more quickly than is usual, the bulbar symptoms being marked in 4 months from first noticeable symptoms.

In this case chronic alcoholism may have been a causative factor. If so, after its appearance the progress of the disease could not have been stopped. If it were a part of the sclerotic condition found in the arteries, the end would have been the same. It has been hoped that in cases which may be syphilitic that antisyphilitic treatment may be of some avail. As yet treatment has been of no avail except in a palliative way. The case-history and symptoms have been given as they were gotten from the family and as they were noted upon examination of the patient. Being one of the less common diseases and reports of cases being rarely seen, it is hoped this may be of interest.

LA PRESSE MEDICALE.

April 2, 1902. (No. 27.)

1. The Passage of Agglutinin from Mother to Fetus in Typhoid Fever. A. ROUSLACROIX.
2. The Prophylaxis of Venereal Disease. G. FISHER.
3. When Quinine Should be Administered.

ALFRED MARTINET.

1.—Rouslacroix divides the cases in which the fetus is born during an attack of typhoid into those in which the fetus is infected during pregnancy and contains typhoid bacilli; those in which the toxin is transmitted through the placenta, the fetal blood giving the Widal reaction; and those in which the fetus escapes all infection. He reports the birth of twins, almost at term, the mother dying of typhoid fever. Labor occurred on the eleventh day. Widal reactions were not obtained from the blood of the infants before or after death. The mother's blood gave a positive reaction. Another patient in whom an 8 months child was expelled on the thirteenth day of illness recovered. While the blood of the mother, the placenta and the umbilical vein gave positive Widal reactions, that of the fetus was negative. This shows that no relation exists between abortion and the intensity of the infection or intoxication of the fetus, for the placenta early in the disease stops the passage of toxins or antitoxins from the mother to the fetus. Only when miscarriage occurs late in the disease will agglutinin probably have passed to the fetus. The agglutinin seems to be stopped in the liver of the fetus before becoming diffused throughout the organism. [M. O.]

2.—Fisher states that the great principles for the prophylaxis of venereal diseases are that knowledge of the symptoms and dangers of syphilis and gonorrhea be widespread; that cases of syphilis and gonorrhea be reported; and that these affections be treated gratuitously with severe penalties for those who neglect such treatment. [M. O.]

3.—In simple malaria 15 grains of quinine should be given from 8 to 10 hours before the expected chill. This should be given in gradually increasing intervals. When malaria is pernicious, quinine should be frequently repeated. When cachexia exists, iron and arsenic should be added. Quinine is of service in typhoid fever, septicemia and other febrile diseases. It may be of value in persistent epistaxis, dental hemorrhage, hemoptysis, metrorrhagia, etc. It is used to cause uterine contractions after parturition. It has also been employed for exophthalmic goiter and certain aortic affections. Its great use is in migraine, neuralgia, vertigo, cough and other vasomotor disorders. Jaboulay has used quinine to prevent the recurrence of malignant tumors. [M. O.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending August 23, 1902:

SMALLPOX—United States.

			Cases...	Deaths.
CALIFORNIA:	San Francisco.	Aug. 3-10.	2	
FLORIDA:	Pensacola.	Aug. 8-16.	4	
MASSACHUSETTS:	Boston.	Aug. 8-16.	8	3
	Brockton.	Aug. 8-16.	1	
	Cambridge.	Aug. 2-16.	5	3
	Everett.	Aug. 8-16.	1	
	Fitchburg.	Aug. 8-16.	1	
	Somerville.	Aug. 8-16.	1	
MICHIGAN:	Detroit.	Aug. 8-16.	2	
MISSOURI:	St. Joseph.	Aug. 2-16.	36	
	St. Louis.	Aug. 10-17.	2	
MONTANA:	Butte.	Aug. 10-17.	1	
NEBRASKA:	Omaha.	Aug. 8-16.	4	
NEW JERSEY:	Camden.	Aug. 8-16.	1	
	Newark.	Aug. 8-16.	3	3
NEW YORK:	New York.	Aug. 8-16.	2	1
OHIO:	Cincinnati.	Aug. 8-15.	1	
	Cleveland.	Aug. 8-16.	58	8
	Hamilton.	Aug. 2-9.	1	
PENNSYLVANIA:	Altoona.	Aug. 8-16.	1	1
	Johnstown.	Aug. 8-16.	3	2
	McKeesport.	Aug. 8-16.	1	1
	Philadelphia.	Aug. 8-16.	1	1
RHODE ISLAND:	Providence.	Aug. 8-16.	1	1
SOUTH CAROLINA:	Charleston.	Aug. 8-16.	2	
UTAH:	Salt Lake City.	Aug. 8-16.	2	
WISCONSIN:	Milwaukee.	Aug. 8-16.	3	

SMALLPOX—Foreign.

AUSTRIA:	Prague.	July 26-Aug. 2.	2	
BARBADOES:		July 29.	15	
BELGIUM:	Antwerp.	July 18-25.	4	
GREAT BRITAIN:	Liverpool.	Aug. 2-9.	11	1
	London.	July 26-Aug. 2.	44	7
INDIA:	Bombay.	July 15-22.	1	3
	Karachi.	July 6-20.	1	
	Madras.	July 12-18.	1	2
ITALY:	Palermo.	July 26-Aug. 2.	8	
JAPAN:	Formosa.	May 1-31.	22	4
RUSSIA:	Moscow.	July 17-26.	5	3
	Odessa.	July 26-Aug. 2.	3	
	St. Petersburg.	July 17-26.	1	

STRAITS SETTLEMENTS:	Singapore.	June 14-July 12.	2	
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YELLOW FEVER.

COLOMBIA:	Panama.	Aug. 4-11.	1	1
MEXICO:	Coatzacoalcas.	Aug. 2-9.	9	1
	Progreso.	July 15-Aug. 9.	4	3

CHOLERA.

CHINA:	Niuschwang.	July 12-19.	66	
EGYPT:	Aboukoulas.	Aug. 19.	78	28
	Assiout Province.	Aug. 19, serious.		
	Cairo.	Aug. 19.	3	
	Charkieh.	Aug. 19.	19	
	Minieh.	Aug. 19.	43	
	Alexandria.	Aug. 19.	2	
INDIA:	Calcutta.	July 12-19.	191	73
	Karachi.	July 6-20.	191	130
JAPAN:	Formosa.	May 1-31.	7	4
	Fukuoka Ken.	To July 10.	101	56
	Kobe.	July 15, Present.		
	Nagasaki.	July 1-19.	5	2
	Mogi.	To July 20.	23	16
	Okayama.	Aug. 9, Present.		
	Tokyo.	July 9.	1	

STRAITS SETTLEMENTS:	Singapore.	June 14-July 12.	170	
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PLAGUE.

AUSTRALIA:	Brisbane.	Apr. 1-May 31.	45	17
INDIA:	Bombay.	July 15-22.	19	37
	Calcutta.	July 12-19.	74	19
	Karachi.	July 6-20.	74	60
JAPAN:	Formosa.	May 1-31.	700	555

Four Cases of Ileus. In the Wiener klinische Rundschau, July 6, 1902, Chlumsky reports in detail 4 cases of ileus. Out of the 4 patients, on all of whom laparotomy was performed, but one died, from general weakness 2 weeks after operation. The others, all adults, recovered and have kept well since. Chlumsky used spinal anesthesia for these operations, with perfect success. No pain was felt at all. The heart, lungs and kidneys were not in any way affected. Chlumsky advocates spinal anesthesia for all operations below the third rib. [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8

VOL. X. NO 10

SEPTEMBER 6, 1902

\$5.00 PER ANNUM

The Therapy of Intestinal Cancer.—The adage "*experientia docet*" is well understood and daily illustrated by every surgeon, yet it is somewhat strange how slow some of us are to learn by the experience of others. How often one meets with a physician or surgeon who lays down some hard and fast rule regarding the treatment of a condition of which he has seen but little, or else who does not hesitate to oppose his opinion, based on a very limited experience, to that of one who has had a most extended experience. He who would be most experienced is he who reads, and listens to, the methods, mistakes and successes of his confrères and compares these with his own.

An article worthy of the consideration of every surgeon is that by Professor Hochenegg, of Vienna, which appears in the August number of the *Interstate Medical Journal* and which deals with "The Therapy of Cancer of the Intestine," and especially with cancer of the rectum. The author has operated upon 282 cases of cancer of the large bowel, 237 of these being cancer of the rectum. Such an experience is hardly equaled by any other continental surgeon, and certainly cannot be approached by any American or English surgeon. It is to be regretted that so much of this paper is taken up with a comparison of the author's results with those of other continental operators and so little space devoted to the technique of the operation. It must be said, however, that this is done in order to disprove the criticism that his own low mortality-rate was due to the selection of cases. Hochenegg is a strong advocate of the sacral route for the extirpation of rectal carcinoma, and his most excellent results, both immediate and ultimate, do much to fortify his position.

In 174 of the 237 cases of rectal cancer the author performed excision of the growth; in the remaining cases some palliative operation was done. Thirty of the cases submitted to radical operation are considered permanently cured; one of these 30 patients has remained free from a recurrence for more than 15 years, and 6 for more than 9 years. Hochenegg states that his percentage of permanent cures is only excelled by that of Kocher's clinic.

In cases of cancer of the colon producing obstruction of the bowels, the author recommends a two-stage operation, which consists, first, in the delivery of the tumor from the abdomen and its fixation in the abdominal wound. After the bowel has become adherent, it is opened on the proximal side of the growth and the obstruction relieved. The second stage of the operation consists in the excision of the growth and the anastomosis of the bowel. This method is said to be much safer than that which involves a primary resection of the bowel, and it is also said that in the second operation a much better anastomosis can be done than at the primary operation, when the proximal side of the bowel is so much larger from distension than the distal end.

Hematomyelia in Pregnancy.—Among the rarer accidents that may befall a pregnant woman must be mentioned apoplexy of the spinal cord. Indeed, so rare is this complication that many, if not all, of the text-books of obstetrics ignore it altogether. That it may occur, however, is amply demonstrated by the report of an interesting case by Dr. Alexander Bruce in the August number of *The Scottish Medical and Surgical Journal*. Since Charcot's contribution, in 1870, and Hayem's monograph, in 1872, other authors on nervous diseases have recognized the possibility of the occurrence of hemorrhage into the spinal cord as a spontaneous and primary condition, but at this writing we cannot find any author other than Dr. Bruce calling attention to the appearance of this grave condition during the course of a gestation. When we consider, however, the marked alterations that occur in the blood and vascular system generally of a pregnant woman, the only wonder is that it is not encountered more frequently.

Not only is there an increase in the watery element of the blood, whereby there develops a greater tendency to hemorrhagic effusions from the mucous and serous surfaces of the body, but there is also a considerable increase in the total quantity of the blood present in the body. In consequence of this a general venous stasis results. The veins

throughout the body, and especially in the lower half, become distended and tortuous. Varices occur in the legs, bladder, vulva, vagina, rectum and broad ligaments, and doubtless in other and more obscure portions of the body. When, in addition to this, it is remembered that the walls of the veins not infrequently lose a portion of their substance, becoming thinner and more distensible, the rarity of rupture is more to be wondered at. Hematuria from rupture of a vessel in the bladder-wall, rectal discharge of blood from bleeding piles, and persistence of menstruation, so-called, during the early months of gestation, all point to the weakened and disordered condition of the venous system.

Bruce now records a fatal case of spontaneous rupture of an angiogliomatous tumor in the spinal cord, accompanied with an extensive effusion of blood, occurring in the sixth month of a gemellar pregnancy. Rupture occurred on the 31st. of October and death resulted on the sixth day of January following. The rupture was excited by violent efforts at vomiting. The symptoms were sudden pain in the back and trunk, paralysis of the lower limbs and trunk muscles, paralytic retention of urine, marked constipation, intense dyspnea, loss of sensation below the xiphisternum, flaccid paralysis during the rest of life, alteration of the reflexes, rapid formation of bed-sores, painless and unconscious birth of twins at the seventh month, and death from bronchitis and exhaustion. The hemorrhage was due apparently to the rupture of a vessel in a neoplasm of the spinal cord, and this may have been hastened by the general venous stasis of pregnancy.

A New Insecticide.—The human race has probably always regarded the insect world as an unmitigated nuisance; at the present day it is known that most insects are liable to be carriers of disease directly and indirectly, although a few, notably the common spiders and dragon flies, are beneficial in some ways. The remedies for insect infection in houses have not heretofore been very satisfactory. The more powerful disinfectants are too destructive; the milder forms are not efficient unless much trouble is taken. Within the past few years entomologists of the United States Department of Agriculture have been giving attention to the use of hydrocyanic acid (hydrogen cyanide) as an insecticide, and report highly satisfactory results. Almost all common house-pests, roaches, ants, bedbugs, mice and rats, are quickly killed by the gas and no injury is done to the furnishings of the rooms. The methods of using the remedy have been made the subject of a special bulletin, and other bulletins, re-

lating to several of the common house insects, have been issued. The gas is obtained by dropping potassium cyanide into dilute sulphuric acid. A good quality of the cyanide is advised, and it is to be broken into small lumps, which are placed in a thin paper bag and dropped into the acid liquid (1 part of the commercial oil of vitriol to two parts of water). The usual arrangement of the rooms is made, that is, the windows, pipe-holes, ventilators and all doors but one are well closed, the mixture is made and the operator escapes at once by the last door, closing it as tightly as possible. The work is begun at the top of the house, as the disengaged gas is lighter than air. The room is allowed to remain closed for some hours, twenty-four, if possible, and then well ventilated before occupation.

The employment of this gas as an insecticide is not new. It has long been used by entomologists for killing their specimens and for protecting museum collections from the ravages of minute insects, but the use of it for the disinfection of large enclosed spaces, and especially for houses, is a new feature, and one for which credit is due the experts of the government department. One of the earliest employments on a large scale was in the disinfection of greenhouses. Those familiar with hydrogen cyanide will be inclined to regard it as too dangerous for free use, but the extended experience of the department has shown that it is easy to avoid injury. In one case a man entered an apartment that was not fully ventilated and suffered with severe headache for a few hours, but no other injury has been reported.

Pauperizing the Scientists.—To pauperize a man means, we suppose, to make a pauper of him. It is not the same as to impoverish him, for the latter phrase means to take away what he has, while the former means to give him alms and, furthermore, to make him dependent upon alms, so that he will no longer have the inclination to work.

This is the fate apparently which the editor of the *Popular Science Monthly* fears is in store for the scientists of this country, and the malign agency which is thus to pauperize the scientists is the Carnegie Institute. The first people to suffer will be those who work in the Marine Biological Laboratory at Wood's Holl. Their democratic independence will be gone, according to the *Popular Science Monthly*, and they will no longer care for science, but only for what they can get out of the big Carnegie fund. The editor of that journal feels so un-

happy about it that he even drops into verse and plaintively quotes:

Just for a handful of silver he left us,
Just for a ribbon to stick in his coat.

We by no means share the dismal forebodings of our contemporary. We referred last week to the proposed transfer of the laboratory at Wood's Holl to the Carnegie Institute and we then endorsed it. We endorse it still. We do not believe that the trustees of the Carnegie Institute want to "boss" things to the detriment of things. They have a large fund to draw from, and they have a large responsibility. They should know how the money is being spent. This is not a pauperizing scheme.

By the way, the rich men have a hard time of it. If they do not give, they are anathematized; and if they do give, they are pauperizing the scientists.

Wise Advice from Chicago.—The prevalence of typhoid fever in Chicago has evidently keyed the Health Department of that enterprising city up to a high pitch of vigilance. Its weekly bulletin for August 9th. states that the disease is more prevalent in Chicago than it has been at any time since the three years immediately preceding the World's Fair, during which period it carried off 4,495 victims and gave the city such a bad pre-eminence among the nations of the earth as to threaten the success of that enterprise.

There is no mincing of words in that statement, for, as the Health Department announces, this is not a time for squeamishness in the use of language. The Health Department has started out with the deliberate intention of shocking the public of Chicago into some realization of the nature and sole cause of the disease. It announces that typhoid fever is a filth disease and is not catching. One cannot catch typhoid fever any more than one can catch a broken leg. The germs must be eaten or drunk, and it is very evident that a great many germs are being eaten and drunk at the present time in Chicago.

Fortunately (or unfortunately) the present type of the disease in Chicago is remarkably mild. There are hundreds of "walking cases" in patients who do not even consult a doctor; but these cases are, if anything, even more dangerous as sources of contagion than the severe bed-ridden cases. In the very nature of things their dejecta are not disinfected, but are spread abroad almost promiscuously. The Health Department publishes some wise advice. For instance, only to drink positively pure water, to pasteurize all milk and cream and to wash all vegetables and fruit intended to be eaten raw. We regard this latter piece of advice as of the high-

est importance. The custom of eating unwashed fruit is almost universal, and as a means of infection it is probably very active. Finally, says the Health Department, do not put ice in the water, but put the water in ice, and keep out the flies.

The health authorities in Chicago are vigilant, intelligent and optimistic. We trust they will combat this pestilence successfully and reduce still more the already almost invisible death-rate of that city.

A Tax on the Dead.—Sydney Smith once wrote in a humorous vein that the Briton was so universally taxed that he did not escape taxation even after his death. So it is apparently with the patients in the Municipal Hospital in Philadelphia. According to a recent statement in the newspapers, the gate-keeper of the Municipal Hospital has been allowed by immemorial custom to collect a fee of three dollars for a certificate of death. According to a statement by Mayor Ashbridge, this custom is entirely in compliance with a rule made by the old Board of Health early in the administration of a former Mayor. The rule has been enforced during several successive administrations. The Mayor states that the rule was made in consequence of some people obtaining death-certificates for the collection of insurance money, and then refusing to bury the body. We know it to be a fact that the collection of insurance moneys on death-certificates issued by hospital physicians is sometimes greatly abused in this city. There is no reason why some fee should not be charged for issuing such a certificate. This should be done, however, with proper safeguards against abuse. There is no reason why hospital physicians should be obliged to sign papers securing money for the relatives of decedents, and not be properly remunerated for it. We think, however, that the tax-collector should not be the gate-keeper.

Porto Rico as a Health Resort.—At the suggestion of an old subscriber we have had prepared by Dr. Coley a short paper on the climate of Porto Rico. This valuable and exceedingly interesting island has now become a part of United States territory, but is probably not so well known, even by hearsay, to American readers as it should be. Since the day it was first sighted by Columbus (for it was one of the discoveries of the great navigator) this island has had an interesting and not uneventful history.

But to us in these pages it is mostly important as a possible resort for invalids.

What strikes one as peculiar about Porto Rico is

the large number of deaths from tuberculosis. One would think that it would be to escape the ravages of that disease that invalids would seek the climate of Porto Rico. But the fact that this glorious island of the tropical seas is infected with this disease, only proves that tuberculosis is not so much a matter of climate as of sanitation. The islanders are evidently a primitive lot and have all the surroundings of primitive insanitation. The fact that they die in large numbers of tuberculosis is no proof that Porto Rico is not a good place for such invalids; it is rather a proof that the sanitation of the island needs attention.

The high lands of Porto Rico should be a salubrious and tropical winter resort, with a little attention to detail.

A Medical Trust.—Word comes from Indiana that a foreign—or Canadian—corporation has started business in that State. For a stipulated sum this company guarantees to furnish to a family all the medical attendance it may require for the year. Patients may select their own physician and call upon him as often as they please. In order to do this, the doctor's fee will be taken care of by the company.

This story only comes to us as a newspaper report, and so it does not appeal strongly to our credulity. Is this really a medical trust? Is some soulless corporation really about to monopolize medical practice in the Hoosier state? One newspaper evidently thinks so, for it announces that "the octopus is splashing in the materia medica." This is, indeed, nothing impossible in the scheme, provided, of course, the doctors are willing to sell out. But just there, we imagine, will be the rub. Will the doctors sell out? We shall await further advices from Indiana.

A New Departure in Rhinoplastic Surgery.—Persons who are unfortunate enough to have lost their noses can get sightly if not altogether useful substitutes by sacrificing the ring-finger. A Russian surgeon, Vreden (*Russki Vrach*, No. 19, 1902), contrived an operation by means of which that digit is fastened to the remnants of the nose in such a manner that the three last phalanges, bones and all, are made to assume as near as possible the shape of the missing member, the tip being formed by the bend of the articulation between the first and second phalanges. The operation consists of two parts, one, the attachment of the finger, and the other, performed 4 weeks later, the severance of the digit and the final adjustment of the artificial nose. The operation had been performed on two

persons under local anesthesia with what the author considers considerable success. It is a pity that he does not permit us to see the photographs of the individuals so successfully relieved of a ghastly deformity, but instead shows free hand drawings, which, however, look very graceful indeed.

Cesarean Section in China.—Some months ago we made mention editorially of the progress of medicine in the Orient as evidenced by a Cesarean section performed by medical missionaries in China. Unfortunately the case terminated fatally. This result, however, evidently has not barred further progress in this direction. In the July number of the *China Medical Missionary Journal* there is recorded the clinical report of a successful Cesarean section performed according to the Porro method by Dr. J. H. McCartney upon a Chinese woman. The patient was a dwarf, 4 feet 2 inches high, weighing 85 pounds, and was 23 years of age. This was her first pregnancy, although she had been married five years. The successful outcome of this case will doubtless have a beneficial effect, and we fully believe that it will not be long before the Chinese people of the seaboard towns, at least, will have learned the value of surgical intervention in obstructed cases of labor.

The Declining Days of Virchow.—Throughout the whole medical world the thoughts of men turn toward the sick-chamber in Germany, where, as we write, the grand old man of medical science is said to be contemplating the end. The latest advices from the physicians give no encouragement about Virchow. The venerable scientist has practically finished his career. He has passed the eightieth milestone. It is to be devoutly hoped that the closing days are not marked by physical suffering and mental decay.

Current Comment.

A PROBLEM.

A mechanical problem that the author apparently believes insoluble is made the basis of a story by Dr. Weir Mitchell in the current *Century Magazine*; but *The American Machinist* says that it is not so hard as it seems. In the tale, a wealthy and cranky mechanical engineer left all his property to a nephew: "This property to consist of a collection of gems of fabulous value which were in a safe-deposit vault. Upon the key to this vault being delivered to the nephew, he opened it and found on top of a steel box a letter addressed to himself, which letter contained a list of the gems within the steel box; but the letter also conveyed the information that the box contained, along with the fortune in gems, some of the engineer testator's specially invented high explosive, which would be sure to detonate as soon as the lid of the box should be raised. The story goes on to describe the various schemes devised for

opening the box without setting off the explosive, all of which were discarded one after another as being impracticable; the final result being that the nephew was driven nearly crazy by his desire to possess the gems—a desire effectually restrained by his further desire to continue living.” Now for *The Machinist's* solution, which is simple enough, if correct. It says: “We should simply immerse this box for about twenty-four hours in liquid air, after which we should expect to open it with impunity, because no explosive we ever heard of could be made to explode after having been subjected for twenty-four hours to a temperature of something like -400° Fahr.”

—*The Literary Digest.*

THE AMBULANCE CHASER.

Representatives of 15 obscure lawyers called yesterday upon Mrs. James Bonner, of 5406 Lancaster avenue, to induce her to begin suit for damages for the death of her husband, accidentally killed Monday night. Mrs. Bonner's husband was run over by a trolley car at Fifty-seventh st. and Girard ave., and just as soon as the “runners” for the lawyers learned that this accident had occurred they began to ring the doorbell of the Bonner home. Each “runner” was anxious to point out the terrible character of Mr. Bonner's death, apparently regardless of the effect on the sorrowing woman. Their visits continued all day. It is the custom of certain lawyers, the police say, to secure clients in this way, although soliciting cases is prohibited by the Bar Association. The police call these “runners” “ambulance chasers,” because they watch hospitals and station houses, and just as soon as they obtain news of an accident hurry to the homes of the afflicted to secure cases on the pay basis of half of the damages secured.

—*The Philadelphia Press.*

Reviews.

Text-Book of Physiological and Pathological Chemistry.

By G. Bunge. Second English Edition. Translated by Florence A. Starling and edited by Ernest H. Starling. M. D. 8vo., 447 pages and index. Philadelphia, P. Blakiston's Son & Co.

This translation is from the fourth German edition. The book comprises a phase of chemistry that is of the highest importance and interest and has, therefore, been industriously studied, but the harvest, though abundant, is still not wholly satisfactory. When we contrast the precision that has obtained in the chemistry of the coal-tar products or the essential oils and the control of transformations and means of interpreting structure by synthetic methods, we can see how much remains to be done in the field of biological chemistry. As Professor Bunge has been one of the most active workers along this latter line, we shall be sure to find in his book a large amount of valuable matter. In regard to its arrangement, we find that the first 27 pages are devoted to a general account of the composition of living structures, and the forms of energy concerned in vital manifestations. A considerable chapter is devoted to the conservation of energy. About 40 pages are assigned to the chemistry of foods in general. In this we note a classification somewhat different from that usual in the smaller text-books. Proteids and fats are included in one group as foods which can both form tissue and yield energy; carbohydrates, gelatine and oxygen are designated as energisers only; water and inorganic salts merely repair tissue-waste, yielding no energy. The last definition seems to us somewhat vague. In the special chapter on inorganic foods, there is a very interesting dissertation on the use of salt (sodium chloride). Bunge thinks that this condiment is not required when an exclusive animal diet is used. He has made much inquiry among explorers and

even in ancient literature, classical and scriptural. We learn that many semicivilized or uncivilized tribes in different parts of the world do not use this condiment. It is also unused among some Finns and Siberian hunters. The author believes that an excessive use of salt is prevalent among modern civilized nations. We can readily accept this view, and the whole of this chapter should be read by those who are charged with the duty of regulating food preservation and who have mostly assumed, without sufficient reason, that salt is the only permissible mineral preservative. It is also claimed that the excessive use of salt leads to an excessive use of alcoholic beverages. Have we in this scientific principle the explanation of world-wide association of pretzels and beer? About 200 pages are devoted to the chemistry of important physiological functions, a chapter to iron in its physiological relations, and then about 40 pages to pathological questions, including diabetes mellitus, infection and fever. Two indexes are given, one of authors and the other of subjects. We do not approve this plan. An index is a purely mechanical contrivance for securing a reference; no attempt should be made at classification. The man who indexed, “Lead compounds,” “Lead, kindly light,” was on the right track, even though the arrangement may provoke a smile.

We have said enough to show that this work, from the pen of one who is so prominent a worker in the field, is of excellent character and a useful addition to the scientific literature. Its subject-matter will be of great value to those engaged in any line of work or teaching in physiological, pathological or dietetic chemistry. The translation is well done. The printing is excellent. [H. L.]

Dangerous Trades. The Historical, Social and Legal Aspects of Industrial Occupations as Affecting Health, by a number of experts. Edited by Thomas Oliver, M. A., M. D., F. R. C. P., etc. New York, E. P. Dutton & Company. London. John Murray, 1902.

This work may be described as encyclopedic, and so far as we know it is the most complete treatise in the English language on the diseases of occupation. It is written by a number of specialists and is edited by Dr. Thomas Oliver, of Newcastle-upon-Tyne, who is himself a well-known expert on the subject of dangerous trades. The book reflects the British industrial world especially, but not exclusively, for pains are taken, not only in special chapters, but throughout the whole work, to give credit to the advances made on the continent, as well as in America, in the scientific study and control of the various sanitary questions arising from trades and occupations. Still, as we have said, the work is essentially British, and perhaps properly so. That nation has been foremost not only as a manufacturing nation, but also in its efforts to control by legislation, as well as by public opinion, the evils to health arising among artisans. In spite of much opposition and even in spite of the teachings of a certain school of political economists, which is rightly supposed to be dominant in England, the British Parliament has constantly legislated and interfered to protect the health of the working people. However much her political economists may advocate the *laissez faire* system, by which everybody, especially in the commercial world, is to be allowed to do as he pleases and to compete in the open market, unhampered by irksome legislative restrictions—in spite of this, the British Parliament has conspicuously defied the principles of the school of Adam Smith and of such later extremists as Herbert Spencer, and has constantly legislated in favor of the men, women and children (especially women and children) who work in her shops and make her vast commercial wealth.

All these facts are brought out conspicuously in this book and help to make its distinctive value. The work smacks of the factory laws through and through; it is, in a sense, an epitome of Britain's extensive factory legislation. But it is also very full of the pathology and clinical aspects of its many topics. As we said at the beginning, it is encyclopedic; an invaluable book, not only of reference, however, but for exhaustive study of all the various diseases of occupation. [J. H. L.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Typhoid Fever in Philadelphia.—The health report for the week ending August 30 shows a great increase in the number of cases of typhoid fever. While 56 cases were reported last week, 92 cases were reported this week, a greater number than in any one week since early spring. The cause of this epidemic is, as usual, supposed to be impurity in the water-supply. A poll of the hospitals of the city shows 200 cases actually under treatment for typhoid fever, the Pennsylvania, Episcopal, German and Presbyterian Hospitals having 30 cases each. An interesting fact noted is that the disease seems more prevalent among women than men.

Dr. Wood Appointed.—Dr. H. C. Wood, professor of therapeutics at the University of Pennsylvania, has been appointed by the Secretary of State to represent the United States at the International Convention for the Unification of Heroic Medicines, to be held at Brussels, September 15. The convention, held under the auspices of the Belgian Government, will arrange a common standard for the more powerful drugs in use throughout the world. At present a prescription written in one country and filled in another may be stronger or weaker than intended by the writer of the prescription.

Smallpox in Carbon County.—Parryville, near Mauch Chunk, has had almost 50 cases of smallpox, out of a population of 500. The Lehigh Valley Railroad will take no passengers on trains from Parryville, until the epidemic is over. People leaving Parryville bear with them certificates from the Board of Health, stating whether they had been exposed to infection, had had smallpox, or had been vaccinated.—The Municipal Hospital at Columbia was closed August 29, after the last patient had been discharged. The epidemic began March 11, 200 people were affected, 97 houses were quarantined, 6000 people were vaccinated and the total costs of eradicating the disease were \$8000.

NEW YORK AND NEW JERSEY.

Smallpox at Moorestown, N. J.—A young colored woman, coming from Merchantville, employed as a domestic, was taken ill August 27 with what is now known to be smallpox. She was sent back to her home, where several other cases are reported.

Typhoid Fever in Brooklyn.—Typhoid fever has been increasing in Brooklyn during the past month, 74 cases having been reported in 20 days. The disease is mild in form, causing very few deaths. The majority of the cases were contracted outside of the city, among the better classes. Brooklyn now has but 3 cases of smallpox, the only cases in Greater New York.

Trachoma Among Immigrants.—On the French steamship *La Gascogne*, which arrived at New York, August 24, 65 cases of trachoma were found among the steerage passengers. Twenty more arrived on the *Zeeland* the same day. Most of the people affected are Syrians. The new immigration law, not yet through Congress, contains a clause expressly designed to cover this sort of cases. It imposes a fine on any steamship line attempting to bring a diseased alien into the United States. At present the only punishment that can be inflicted on the steamship company is to send the diseased immigrants back at the expense of the company.

Smallpox in Camden, N. J.—One new case of smallpox was discovered August 26, and 2 more August 28. All these cases were taken to the Isolation Hospital, where there are now 10 cases. One of those affected worked in the shipyard, but as he had been away from work 2 weeks, the disease is not expected to spread. Colored people are being urged to be vaccinated, for most of the cases in this outbreak have occurred among the colored race. One death has already occurred. These cases come mainly from Homesteadville, where the disease was first diagnosed French measles.

American Electro-Therapeutical Association.—The twelfth annual meeting will be held September 2-4, 1902, at Hotel Kaaterskill. Catskill Mountains, N. Y.

Killed by Compressed Air.—In the Ontario and Western car shops at Norwich, N. Y., is a powerful pump for com-

pressing air. After work it has been the custom for the men to turn on a small current of air for dusting their clothes. One of them last week snatched the nozzle, which resembles that of an ordinary garden hose, and placing it against a fellow workman's body, turned on the full force of compressed air. This hurled him across the room, causing collapse and death in a short time. The autopsy showed that the air had ruptured the intestines, resulting in hemorrhage and death. The workman was arrested.

A Hospital at Babylon, L. I.—As there is no hospital on Long Island east of Mineola, steps are being taken to establish a hospital at Babylon, so that proper treatment may be given the victims of accidents without the necessity of conveying them a long distance by train.

Typhoid Fever at Bayside, L. I.—The occurrence of 31 cases in the last 2 weeks has caused an investigation by the New York Board of Health. It was found that the dairyman at Bayside had been washing the milk cans and bottles in the stationary washtubs in which his family washing was done. His daughter was one of the first affected with typhoid fever.

Monmouth Memorial Hospital, Asbury Park, N. J.—The sum of \$500 has just been given to the Monmouth Memorial Hospital by Mr. J. A. Bradley.

Vineland Home for Feeble-Minded Women.—Plans for the Home for Feeble-Minded Women, soon to be erected at Vineland, N. J., have been prepared. The building is to be of brick, 2½ stories high, to cost \$12,000.

MISCELLANY.

Peruvian Physicians.—To practise medicine in Peru, a physician must pass a State Medical Board examination in Spanish. A certificate is then given him, entitling him to practise in any part of Peru. As both Lima and Callao contain a large number of Americans and English, either city would seem to offer a good opening for young men with a knowledge of Spanish.

Health of the Philippines.—There seems to be no hope of totally checking the spread of cholera in the Philippines until the typhoon season begins. The epidemic has not only been confined to the low country towns, but mountain towns in Dagupan have had cases for over a month past. The number of deaths in the provinces ranges from 350 to 450 daily, while there are from 50 to 70 new cases every day in Manila, with nearly as many deaths. The spread and tenacity of this epidemic in the Philippines is in great part due to the almost complete negligence of the Filipino civil authorities. A letter received last week by Surgeon-General Forwood, from Chief Surgeon Kennedy in Manila, states that lately some improvement has been noted in the cholera situation. The total number of cases of cholera reported, up to August 30, was 27,929, with 19,640 deaths. Between August 3 and 27, 25 deaths have occurred among the enlisted men. Owing to the strict sanitary measures enforced in the Philippines, dysentery has practically disappeared. The skin disease, known as adobe itch, has also been eradicated by the Army medical men. Typhoid fever, however, has greatly increased during the past few weeks. When the heavy rains come on it is expected that typhoid fever will also disappear. The War Department has decided to reduce the force of medical officers, hospital corps men and nurses in the Philippines, owing to the reduction of the military forces and the decrease in the cases of cholera. The withdrawal of the American Army surgeons from a number of inland towns may account for the tenacity and spread of the epidemic in those districts. In answer to complaints from private and official sources, of the five day quarantine detention at Manila, of transports leaving for the United States, the chief quarantine officer, Dr. J. V. Perry, has submitted a report to Surgeon-General Weyman, U. S. P. H. and M.-H. S., explaining the necessity for the regulation. He shows that no American vessel leaving Manila has carried the disease thus far, although it has broken out on 23 ships during the quarantine period. This demonstrates the wisdom of the regulation.

Plague in Honolulu.—Since the last case of bubonic plague reported in Honolulu, July 23, 2 more deaths oc-

curred from the plague, August 3 and 9. On this account outgoing quarantine restrictions were resumed August 7.

Alaskan Diseases.—An English physician, who has been making a study of diseases in Alaska, reports that cerebro-spinal meningitis is very prevalent, scorbutus is widespread, rheumatism is frequent, pneumonia is almost unknown and insanity is by no means rare. His report indicates that a vigorous physique is required to resist the Alaskan climate.

Cholera in China and Japan.—Cholera broke out in Amoy, China, about May 5, and is still raging among the Chinese population in that part, the death-rate averaging about 150 a week. The great bulk of the cases of cholera recently occurring in Japan is credited to Fukuoka Ken, a prefecture on the Island of Kyushu. Up to July 28, 287 cases with 168 deaths occurred, besides 68 cases with 30 deaths mentioned as doubtful. More than 100 of the above cases occurred in the seaport town of Moji. In Hong Kong up to August 6, there had been 523 cases, with 511 deaths, 4 deaths out of 6 patients being Europeans.

Yellow Fever in Havana.—The Ward Line steamer, *Vigilancia*, which arrived from Vera Cruz, Mexico, August 4, had a man removed to Las Animas Hospital with yellow fever. Death occurred the next day. Steamships from Mexican ports transact business in quarantine in Havana harbor while en route to New York.

Cholera in Egypt.—The cholera has spread to Alexandria, 5 cases having been reported August 7. The next day, 18 cases were reported from Cairo. Between July 15 and August 11, 900 cases of cholera have occurred throughout Egypt.

Yellow Fever in Brazil.—A despatch to the State Department July 24, from Para, Brazil, states that yellow fever is raging in the Amazon Valley.

Smallpox in the United States.—The total number of cases of smallpox in the United States between June 28 and August 29, 1902, was 5021 with 317 deaths. Last year during the same period, 8534 cases were reported with 231 deaths.

Obituary.—Dr. Max Hoffman, at Chicago, Ill., August 28.—Dr. Michael Bradley, at Philadelphia, Pa., August 27, aged 65 years.—Dr. George S. Hull, at Pasadena, Cal., August 29, aged 50 years.—Dr. Ralph Fetty, at Clarksburg, W. Va., August 24.—Dr. Aaron Friedenwald, at Baltimore, Md., August 27, aged 65 years.—Dr. Ellis Clarence Garee, at Baltimore, Md., August 30.—Dr. St. George W. Teackle, at Baltimore, Md., August 30.—Dr. George T. Scarburgh, at Accomac Courthouse, Va., August 31.

GREAT BRITAIN, ETC.

London's Large Hospitals.—St. Bartholomew's Hospital contains 734 beds; Charing Cross Hospital, 230 beds; St. George's Hospital, 351 beds; Guy's Hospital, 650 beds; King's College Hospital, 220 beds; London Hospital, 800 beds; St. Mary's Hospital, 281 beds; Middlesex Hospital, 340 beds; St. Thomas' Hospital, 602 beds; University College Hospital, 188 beds; Westminster Hospital, over 200 beds and Royal Free Hospital for Women, 170 beds. These 12 hospitals, the largest in London, accommodate 4766 patients.

Bequests.—In the will of the late Miss Blackman, of Ramsgate, \$50,000 each are left to Guy's Hospital and the Kent and Canterbury Hospitals.

Cancer Research Fund.—The Duke of Bedford has promised an annual subscription of \$5000, for the next 3 years, to the Cancer Research Fund.

CONTINENTAL EUROPE.

Dr. Virchow's Illness.—During the past week the health of Professor Virchow, the famous German scientist, has failed considerably. He has been brought back to Berlin from Harzburg, where he failed to gain in strength. As he is in his 81st. year, the physicians who are treating him have but little hope of any marked improvement in the condition of their distinguished patient.

Denicotined Tobacco.—A German chemist has discovered a means of removing the nicotine from tobacco, by steeping the tobacco leaves in a solution of tannic acid. In order to increase the flavor of tobacco, it is then treated with a decoction of marjoram. It remains to be seen whether cigars and cigarettes, made from this tobacco, without

nicotine, would have enough flavor to become the vogue among smokers.

French Urological Association.—The sixth annual meeting will be held in Paris, October 23 to 25, 1902, under the presidency of Professor Guyon. The main subject for discussion will be the indications and results of nephrectomy.

Recent Experiments on Clothes and Bedding.—Viola and Morello have recently published the following conclusions, based upon their experiments: Clothing, linen and other garments are capable of holding a relatively large number of micro-organisms, varying from 915 to 571,962 for each square centimeter of goods. While the greater part of these bacteria are saprophytic, pathogenic germs are also found. The number of bacteria found in garments in actual contact with the human body is in direct ratio to the number of days the garments are worn. In general, the number of bacteria found in clothing of a person is proportional to the activity of his occupation. Wool has a greater capacity for germs than cotton. Corresponding to the local bacteriological flora of the surface of the human body, there is a quantitative difference in the bacterial contents of clothing covering different parts of the skin. Wool is a more favorable habitat for bacteria than cotton or silk. In clothing actually being worn, pathogenic bacteria live a shorter time than in the same garments hanging in a wardrobe. Pathogenic bacteria flourish better in garments of wool and cotton that are alternately worn and exposed to the air off the body than in clothing constantly worn. Under all conditions, pathogenic bacteria contained in clothing gradually die out. There is with the passage of time a gradual diminution in the number of disease-producing germs with which a given article of clothing has been contaminated. There is also a progressive decline in the power of development of bacteria, as they undergo a gradual diminution in virulence. The authors conclude that garments are a potent means for the diffusion of infectious agents, and that without special treatment pathogenic germs can retain their virulence in human raiment for a considerable but not indefinite period.

University Notes.—Berlin: Dr. Willibald A. Nagel, director of the Physiological Institute, has been made professor of physiology.—Dr. Schweigger, up to a few years ago von Graefe's successor as professor of ophthalmology, has just celebrated the completion of 50 years as a physician.—Dr. E. Lesser, professor of dermatology, is to become director of the dermatological department of the Charité Hospital, October 1, 1902.—Breslau: Professor Rudolf Leonhard has been appointed rector of the University and Professor Carl Flügge, dean of the medical faculty, for the coming year.—Camburg: Dr. Bender celebrated his 50th. anniversary as a physician, August 25.—Colmar: Dr. Rebenstein has just celebrated his 50th. anniversary as a physician.—Freiburg: Dr. Eduard Jacobi has been appointed professor of dermatology, filling the newly created chair on that subject.—Heidelberg: Dr. Jurasz has been appointed professor of laryngology, filling the new chair.—Leipzig: Dr. Wilhelm Wundt celebrated his 60th. birthday August 16.—Odessa: The following have been elected professors in the new medical faculty of the university: Dr. Batujew, of anatomy; Dr. Podwyssozki, of pathology; Dr. Verigo, of physiology; Dr. Medwjedew, of physiological chemistry; Dr. Michailow, of diagnosis; Dr. Borissow, of pharmacology; Dr. Sapeschko, of surgery; Dr. Lyssenkow, of operative surgery; Dr. Kischenski, of pathological anatomy; and Dr. Massen, of gynecology.—Prenzlau: Dr. Lindow has just celebrated his 50th. anniversary as a physician.—Rennes: Dr. Le Damany has been appointed professor of hygiene and medical jurisprudence.—Würzburg: Dr. Boveri, professor of zoology and director of the zoological institute, has just received the Stiebel prize, given by the Senkenberg Foundation, in Frankfort-on-the-Main.

Obituary.—The death of Dr. Ivan Nowacki, professor of surgery in the University of Moscow, has recently been announced. He was 75 years old.—Dr. A. Walther, member of the Medico-Chirurgical Academy of St. Petersburg, translator of several Russian works on physiology into German, died suddenly in western Russia.—The death is also announced of Dr. Reily, the well-known anatomist and alienist of Halle.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

August 16, 1902. (No. 2172.)

1. A Discussion on the Administrative Prevention of Tuberculosis. JOHN ROBERTSON, ARTHUR NEWSHOLME, A. D. WEBSTER, C. R. DRYSDALE, JOHN LLOYD ROBERTS and JAMES BEATTY.
2. The Etiology of Return Cases of Scarlet Fever. C. KILLICK MILLARD.
3. The Cause of Return Cases of Scarlet Fever. MERVYN H. GORDON.
4. A Discussion on the Relation of Poverty and Disease. ALDERMAN McDUGALL, B. SEEBOHM ROWNTREE and C. R. DRYSDALE.
5. The Outbreak of Arsenical Poisoning. C. H. TATTERSALL.
6. Plague as a Soil Infection. REGINALD FARRAR.
7. Infant Mortality. J. M. RHODES.
8. The Further Control of Common Lodging-houses. MEREDITH YOUNG.

1.—Robertson, in the discussion on the administrative prevention of tuberculosis, recommended (1) a special notification enactment, (2) a special enactment dealing with the sputum of consumptives, (3) a special enactment dealing with disinfection of houses and (4) a special enactment dealing with the provision of places for the treatment of consumptives. Newsholme describes the course followed in Brighton, which consists in (1) diagnosis by microscopical examination of sputa, (2) notification, (3) measures of cleansing and disinfection, (4) means for preventing infection and re-infection at home or at work, (5) investigation of sources of infection, (6) removal of insanitary home or work conditions, (7) removal of patients, (8) after-treatment of convalescent patients and (9) removal of food infection. Webster, Drysdale, Roberts and Beatty also took part in the discussion. [H. U. N.]

2.—Millard thinks the following points may be accepted as established: (1) Return cases are caused by the carrying home of infection by patients returning from hospitals. (2) Return cases are essentially a hospital phenomenon. (3) The infective influence persists for a much longer period than was at first supposed. (4) Discharges from the nasal and aural passages and unhealthy conditions of the nasal mucous membrane are most frequently associated with the carrying of infection. (5) The fatality of returning cases is above the average. (6) The influence of stay in hospital upon the occurrence of return cases. (7) The connection between the occurrence of return cases and overcrowding in hospitals. (8) The nature and origin of the infection carried out from the hospital, which is derived from contact with acute cases, the infection being inhaled and stored in the nasal cavity. Against this last view may be suggested that, if mere contact with acute cases was the cause, nurses would carry the infection out of the hospital, which rarely happens; if the infection were extraneous, we would expect it to lose its activity very quickly after the patient is removed from the infective atmosphere, which is not the case, and there is an almost certain connection between the existence of an aural discharge and the carrying of infection. [H. U. N.]

3.—After considering the etiology of scarlet fever and the relationship of streptococcus scarlatina to return cases, which may persist in the tonsillar mucus for a considerable period after the date of attack, Gordon mentions the aural and nasal discharges, the nose and ear, by reason of their anatomical position, the possibility of infective material from the mouth and throat being transmitted, either directly or indirectly, and direct aerial convection, as the causes of return cases of scarlet fever. Thorough throat disinfection would lessen complications and the number of return cases. [H. U. N.]

4.—These authors show the relation existing between

poverty and disease, quoting statistics, in the poorer sections of some of England's large cities. [H. U. N.]

5.—Tattersall described an outbreak of arsenical poisoning due to the use of an artificially prepared sugar in the manufacture of beer, which gives it the bright appearance so much desired by the public. The amount of arsenic varied much in different samples, 1.5 gr. per gallon being the most found. From June 1900 to June 1901, 107 deaths were ascribed to the edipemic; in Salford, alone, with a population of about 220,000, the author noted 996 well-defined cases. The chief symptoms are running of the eyes and nose, pigmentation, skin affections, sensory disturbances, motor disturbances, gastro-intestinal troubles, anasarca and mental disturbances. The epidemic shows the need for a public department whose duty it will be to watch the introduction of manufactured substances for natural food products and the use of preservatives in food. [H. U. N.]

6.—Farrar, from the report of the Indian Plague Commission, summarizes the evidence that outbreaks of bubonic plague are due to a specific microbe found in soil contaminated with the excreta of rats or other animals suffering from the disease. It is a significant fact that plague is endemic in certain districts, notably in the Kumaon district, and in Yunnan, China; of two villages in Kumaon, about 500 yards apart, one may be ravaged by an epidemic while the other remains entirely exempt. The efficacy of evacuation in checking epidemics shows plague to be a soil infection, yet more conclusive is the fact that such cases of plague as do sporadically occur in health-camps after evacuation occur almost exclusively in persons who have visited their homes against orders. Disinfection work is most dangerous when done by barefooted coolies, but persons protected by boots and putties run very little risk. The terrible susceptibility of the people of India to plague lies in the fact that, as a rule, they are a barefooted people, the majority of them wearing toe rings which cause chronic abrasions; the women scour their vessels by hand, using earth, and sweep the floor of their houses with the bare hand. To well shod and well clad persons plague is very little dangerous. [H. U. N.]

7.—Rhodes shows that, while sanitation in its enormous progress has reduced the general death-rate from 22.0 to 18.2, it does not apply in the slightest degree to infants, their mortality-rate being as high to-day as it was 50 years ago in England. The principal causes of this high mortality are diarrhea, bronchitis and bronchopneumonia. [H. U. N.]

8.—Young, in his paper on the further control of common lodging-houses, makes a plea for the elevation of the standard of these houses and their keepers. [H. U. N.]

LANCET.

August 16, 1902.

1. An Address on the Modern Treatment of Pulmonary Consumption. ARTHUR LATHAM.
2. Remarks on the Life-History of *Filaria Bancrofti* and *Filaria Immitis*. LOUIS W. SAMBON.
3. Some Further Statistics Regarding the Effect of Inoculation Against Typhoid Fever in South Africa, with Special Regard to the Question of Age. ALEXANDER CROMBIE.
4. The Treatment of Appendicitis. JOHN O'CONNOR.
5. A Case of Ruptured Gluteal Aneurysm; Transperitoneal Ligature of the Internal Iliac Artery. HERBERT W. PAGE.
6. On the Precipitin in Cobra Venom; a Means of Distinguishing Between the Proteids of Different Snake Poisons. GEORGE LAMB.
7. "Fourth Disease." R. W. MARSDEN.
8. A Case of Nasal Vertigo Simulating Epilepsy. EDWARD WOAKES and J. C. PROCTER.

9. A Case of Acute Mental Disorder, probably Toxic in Origin, Secondary to Influenza, etc.

ALICE N. V. JOHNSON and EDWIN GOODALL.

1.—Latham delivered an address on the modern treatment of pulmonary consumption before the Hunterian Society of St. George's Hospital on November 24th., 1901. He points out that, to fight this disease, the patient must be placed under an ideal condition as regards foods, air and avoidance of fatigue. The principle of the sanatorium treatment is to increase the resistance of the body so as to render the tubercle bacilli innocuous. The essentials of the sanatorium treatment are: (1) A continuous supply of fresh air with no unnatural changes of temperature and the avoidance of all sources of irritation from dust and the like; (2) good nourishing food in sufficient quantity to establish and to maintain the normal body weight of the patient; (3) an absolutely regular life, so arranged that neither the lungs nor any other portion of the body are allowed to be put to any strain; and (4) graduated exercise without strain. He then describes at some length this plan of treatment under the 4 headings referred to.

[F. J. K.]

2.—Sambon contributes remarks on the life-history of *filaria bancrofti* and *filaria immitis*, in which he criticizes the manner in which Dr. Noe has drawn the conclusion that the filariæ are introduced into man by the mosquito in a manner analogous to malarial infection. He believes Dr. Noe's experiments do not prove this and that his argument is far from convincing. [F. J. K.]

3.—Crombie contributes further statistics regarding the effect of inoculation against typhoid fever in South Africa, with special regard to the question of age. His article contains 6 tables which show that the period of greatest susceptibility to enteric fever is from 20 to 25 years of age, this being true for the inoculated as well as for the non-inoculated individuals. Before the age of 30, the advantage of single inoculation is distinct. The incidence of enteric fever up to the age of 30 in his investigations was 27 per cent. against 51 per cent. among those not inoculated. He found that beyond the age of 30 the position is the reverse and the advantage is with the noninoculated, the incidence among them being then 14.3 per cent. against 27.4 per cent. among those inoculated once. He points out that these figures would seem to suggest that, as the period of natural susceptibility to the disease is passing away, inoculation is to be avoided as likely to increase the liability to infection. He further states that the whole question of immunity, and the effect of inoculation on immunity, is evidently and admittedly a most difficult and complicated one. He remarks that his statistics point out unmistakable evidence of the clear and substantial advantage that a single inoculation gives to a young soldier under the age of 30, and especially at the age when his susceptibility to the infection is greatest. [F. J. K.]

4.—O'Connor discusses the treatment of appendicitis, based on 140 operations. Three times the author has operated for secondary attacks of appendicitis when simple incision and drainage has been done in the first attack. He does not believe that the formation of an abscess results in the obliteration of the appendix. Unless the patient's condition is immediately alarming, the adhesions should be separated and the appendix removed at the primary operation. The key to the treatment of purulent appendicitis is early operation and an incision which permits inspection of the parts. O'Connor advocates early operation in all acute cases since it is often impossible to tell the exact pathological condition present. His remarks are illustrated with numerous references to cases.

[J. H. G.]

5.—Page reports a case of ruptured gluteal aneurysm which was incised, the clot evacuated and the vessel of supply with difficulty controlled while the abdomen was opened and the internal iliac ligated. The patient died

some days after the operation from pneumonia. The abdomen wound healed primarily, but the gluteal wound suppurated. [J. H. G.]

6.—Lamb contributes a preliminary account on the precipitin of cobra venom: A means of distinguishing between the proteids of different snake poisons. His experiments are mentioned in detail, and his article points out the results of his experiments in a tabulated form. He writes: If this biological test should show, on further investigation, that the proteid constituents of cobra venom are exactly the same as those of daboia venom, we must conclude that the proteids contained in these venoms are not the toxic constituents of the poisons. The results tabulated in tables II and III go to support this hypothetical conclusion, for a glance at these 2 tables will show (1) that cobra venom serum forms a precipitin with the proteids of daboia venom which are incoagulable by heat, exactly the same as the precipitin given with the proteids of cobra venom which are incoagulable by heat; and (2) that heated cobra venom serum forms a precipitin with daboia venom in every way the same as that formed with cobra poison. If, then, this test is a relatively specific test for proteids, we have in all these data, to which he draws attention, evidence which suggests that the proteids of cobra venom are either identical with the proteids of daboia venom or, failing this, that they possess the same haptophoric group. It may be noted if the former alternative were established that it would follow that the proteid substances which are precipitated in these reactions are not the toxic elements of the venoms. On the other hand, when we come to look more closely into the results tabulated in Tables I, V, and VI, a slight difference is seen to exist between the reaction that serum gave with cobra venom and that which it gave with daboia venom. This difference consists in the fact that with the same amount of serum a precipitin is formed with a weaker solution of cobra venom than is the case when daboia venom is used. This fact is shown best in the results detailed in Tables V, and VI. The difference is certainly not very great and it is just a question as to whether or not it is sufficient to warrant the conclusion that the proteids of the one poison are different from the proteids of the other venom, so different (granting that these substances are the toxic constituents of the poisons) as to lead one to expect that the physiological actions of the two venoms to be so distinct as they are. He proposes, however, to leave the problem in this position for the present, and hopes that the experiments which are now in progress in his laboratory will settle the question one way or the other. [[F. J. K.]

7.—Marsden discusses the question of a fourth disease distinct from scarlet fever, measles and rubella. He holds the view that the evidence upon which the differentiation of fourth disease has been based is not conclusive and that more details must be brought forward before we can feel satisfied that its definite nature has been distinguished. He does not, however, deny this question. [F. J. K.]

8.—Woakes reports a case of nasal vertigo simulating epilepsy which occurred in a man, 40 years of age. He regards this case as an extreme type of a class of which there are many examples—that is to say, of vertigo of nasal origin, with its varied and often curiously puzzling phenomena. Though constituting a group of disease which is *sui generis* and quite distinct from epilepsy, it sometimes simulates one or the other of the forms embraced by this latter term. It has, however, these advantages over true epilepsy, the existence of a recognizable *causa causans*—viz: Ethmoidal disease and its almost certain cessation when this disease is radically dealt with. [F. J. K.]

9.—Johnson and Goodall report a case of acute mental disorder, probably toxic in origin, secondary to influenza, which occurred in a woman, 43 years of age. The patient died after a brief illness and the result of necropsy was practically negative except that the bacillus diphtheriæ was found in the blood. [F. J. K.]

MEDICAL NEWS.

August 30, 1902. (Vol. 81. No. 9.)

1. The Complications and Sequelæ of Acute Croupous Pneumonia. H. A. HARE and ARTHUR DARE.
2. On the Causes, Variations and Significance of the Color of the Feces. L. A. CONNER.
3. Suture of the Solid Viscera. R. C. COFFEY.
4. Pulmonary Syphilis; Report of a Case.

J. M. WINFELD.

1.—Hare and Dare believe that the complications and sequelæ of croupous pneumonia, independent of the cases due to mechanical causes, are best studied and classified as pneumococci infections. Pathology has not aided us in discriminating whether the complicating condition occurs primarily with the initial invasion of the organism or whether we are confronted with a general re-infection dependent upon blood contamination with the pneumococcus.

[T. M. T.]

2.—Conner names the ingredients that go to make up the coloring of the stools as follows: (1) Digestive secretions; (2) food residue; (3) discharges from the intestinal mucous membrane; (4) accidental ingredients. In concluding his paper he says that the "green stools," except in those infrequent cases in which the color is due to bacterial action or to the food, are always caused by the presence of biliverdin. This pigment may never occur as a normal constituent of the feces except in meconium. In infants, however, in whom the putrefactive processes in the intestines are slight and in whom bilirubin is found normally in the feces, biliverdin will appear upon slight provocation. The green color may be present when the stool is passed or may develop only after it has stood for some time. Biliverdin is found in the stools of children in diarrheas of many sorts. Such stools are usually alkaline in reaction and it is believed that biliverdin is associated with increased alkaline reaction of the contents of the upper part of the small intestine. The green stools in adults only occur when there is inflammation with increased peristalsis of both small and large intestines and never when one or the other alone is involved, since with normal peristalsis in either large or small intestine there should be time for the reduction of the biliverdin to hydrobilirubin.

[T. M. T.]

3.—Coffey, in his article on suture of the solid viscera, suggests that the needle should be round, fully-curved and fully 4 inches long. The one with which the counter-stitch is made may be a simple darning needle or any kind of a large straight needle. [T. M. T.]

4.—Winfield reports a case of the above conditions and gives the reason why it is so seldom diagnosed. (1) The difficulty in differentiating it physically from tuberculous phthisis; (2) the possibility of syphilis and tuberculosis co-existing; (3) the complete cure of the syphilitic lung lesion. [T. M. T.]

MEDICAL RECORD.

August 30, 1902.

1. Placenta Previa with Statistics from the Last 11,200 Deliveries of the Sloane Maternity Hospital.
FRANKLIN A. DORMAN.
2. The Opinions of Different Surgeons and Pathologists as to the Origin and Cause of Fibroid Tumors.
MARY A. DIXON JONES.
3. Some Practical Problems in Sociology Shown by a Study of the Southern Negro. M. L. PERRY.
4. Dust, Dirt, Dampness and Darkness as Etiological Factors in Tuberculosis. CHARLES R. UPSON.
5. Out-of-Door Treatment—Its Special Relation to the Preparation for, and Convalescence from, Operations.
N. B. ALDRICH.
6. Treatment of Ulcers of the Leg. CASS CHENOWETH.

1.—Dorman discusses placenta previa with statistics from

the last 11,200 deliveries in the Sloane Maternity Hospital. There were 84 cases of the condition, or, 1 in 133 1-3 cases. In the cases which he reports the bleeding at the onset was moderate and gradually increasing and independent of labor pains in 50%. In 10% it began moderately after the beginning of labor. In 40% there was sudden profuse flooding. The bleeding in cases of complete placenta previa was more severe and almost without exception came on suddenly. Over half the women in this class went on to full term. From the statistics presented he concludes that uterine relaxation and endometritis as important etiological factors are well shown; second, that the immense variation in the types of bleeding should warn us to look upon any bleeding during any time of pregnancy with suspicion; third, that the very great possibility of sepsis should cause us to employ every precaution in asepsis. The necessity for exceptional care during the breech extraction when the cervix is not completely dilated is apparent. The cervix in this condition is unusually vascular and soft and tears with fatal readiness. [T. L. C.]

2.—Jones has collected the opinions of different surgeons and pathologists as to the origin and cause of fibroid tumors and presents a theory of her own. She has found from studying the tissues of a number of cases of myomatous uteri that each organ was profoundly diseased. While pathologists have much to say in general of tumors themselves, there is very little said of the state of the organ itself. Jones believes that in each case the long existing disease present may have caused the development and growth of the tumor. The conclusions have been reached after a careful study of a large number of specimens.

[T. L. C.]

NEW YORK MEDICAL JOURNAL.

August 30, 1902.

1. The Education and Development of Neurotic Children.
GRAEME M. HAMMOND.
2. The Passive Carrying Function of the Arm; Its Importance, its Destruction and an Operation for Its Restoration. PHILIP HOFFMANN.
3. A Harelip Incision. THOMAS FILLEBROWN.
4. Radiodiagnosis of a Case of Traumatic Periostitis.
CHARLES VERGE.
5. Gynecology and the Country Doctor.
JAMES HAWLEY BURTENSHAW.
6. The Administration of Chloroform and Ether.
HELEN HUGHES.
7. Amnesia, With Report of a Case. S. D. HOPKINS.
8. Nutritive Infusions. SOUTHGATE LEIGH.
9. The X-Rays in the Treatment of Malignant Growths.
J. RUDIS-JICINSKY.
10. A Successful Late Laparotomy for Gunshot Wound of the Intestine; Remarks on Suturing. W. J. PETTUS.

1.—The number of neurotic children seems to be increasing. Nervous disease, alcoholism and syphilis in the parents are the main causes. While convulsions may be neurotic in infants, neurasthenia and hysteria are rarely noted before the fifth or sixth year. With the advent of puberty nervous diseases become quite common. Hammond believes that the condition should be treated as soon as the neurotic element is discovered. Such children should have a special education, a diet, mainly of nitrogenous food, but without overfeeding. Firm moral training is also essential. Mental fatigue or exhaustion must be carefully guarded against, in spite of precociousness. These children need repression, mentally. Direct the physical training so that the child will grow up into a healthy person; leave his mental training until physical health has been fully established. Exercise, hygiene and fresh air are of value.

[M. O.]

2.—See Philadelphia Medical Journal, June 28, 1902, page 1151.

3.—Fillebrown describes his incision for performing the harelip operation. Starting at the highest part of the anomaly, he cuts obliquely upward on each side, then obliquely downward, making an M-like incision. By this

method the red border of the lip is preserved, as is shown in photographs. [M. O.]

4.—Verge gives a radiogram, by means of which he diagnosed a case of traumatic periostitis. [M. O.]

6.—Ether is generally to be preferred to chloroform as the anesthetic. With atheroma, cardiac lesions, etc., Hughes advises beginning with chloroform, but continuing with ether. In operations upon the nose and mouth and in confinement cases, chloroform is indicated. It must, however, be chemically pure. The examination and preparation of the patient and the technique and accidents of the administration of an anesthetic follow. [M. O.]

7.—Hopkins reports a case of amnesia in a man of 34. Total lapse of memory occurred for 45 days, following excess of alcohol. For a shorter interval previous to this partial amnesia had been noticed. [M. O.]

8.—Leigh reports his experiments on animals and human beings with nutritive infusions. He uses saline tablets and egg albumen, warmed to 105° F. The injections are made subcutaneously, once in 4 hours, from 12 to 20 ounces at a time. Good results followed this harmless mode of injecting nutrition. Stimulants may also be given in this way. [M. O.]

9.—Rudis-Jicinsky reports 4 cases of superficial cancer in persons who were given X-ray treatments, without recurrence in the 2 which recovered. Two died, one from operation some time after treatment, the other from exhaustion during treatment. There is no danger in the technique, but a long time is necessary for successful application of the method. He considers his results most encouraging. [M. O.]

10.—Pettus reports a gunshot wound of the intestines in a man of 26. Thirty-one hours elapsed before laparotomy, yet recovery followed suturing the 7 large, ragged perforations with Lembert sutures. There were no signs of shock following the accident. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

August 28, 1902. (Vol. cxlvii, No. 9.)

1. The Shattuck Lecture. The Changes in the Spinal Cord and Medulla in Pernicious Anemia.

FRANK BILLINGS.

2. Cases of Prostatectomy, with Remarks on the Operation. PAUL THORNDIKE.

3. Smallpox; Its Medical Treatment. MICHAEL KELLY.

1.—To be abstracted when concluded.

2.—Thorndike says: (1) That great relief can be given to all patients suffering from symptoms due to obstructing enlargement of the prostate, either by palliative or by operative means. (2) That the time to resort to operative measures is just as soon as palliative treatment, carefully executed by competent hands, has failed to give relief. (3) That complete prostatectomy is always the operation of choice, because it is the only operative procedure which cures or gives uniformly good results, when successfully performed in proper cases. (4) That the best time for its performance is just as soon as palliative efforts have failed or are manifestly impossible of execution and before secondary changes in the bladder and kidneys, due to long-continued obstruction, have taken place. (5) That in those cases that come for surgical relief so late in the development of the pathological conditions, that the bladder and kidneys are extensively diseased and the patient is manifestly exhausted by long-continued suffering, other less certain and perhaps less severe measures may be advised, instead of a complete prostatectomy; but that such a decision can only be and must always be made by the surgeon for the individual case and cannot be made the subject of a generalization. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

August 30, 1902.

1. The Removal of Foreign Bodies from the Eye.

O. HAAB.

2. Foreign Bodies in the Eye. WILLIAM M. SWEET.

3. The Removal of Bits of Steel from the Interior of the Eye, by the Haab Magnet, Without Incision in the Sclera. MYLES STANDISH.

4. The Omentum as a Surgical Factor in Laparotomy.

HENRY O. MARCY.

5. A New Operation for the more Satisfactory Repair of the Pelvic Floor with Special Reference to the Restoration of the Deep Nidus of the Perineum.

CHARLES A. L. REED.

6. Chronic Inflammation of the Uterine Appendages; its Treatment by Mercuric Cataphoresis.

G. BETTON MASSEY.

7. Oral Hygiene. GEORGE F. EAMES.

8. Etiology and Treatment of Migraine. J. M. AIKIN.

9. A Subsequent Report on a Case of Carcinoma, Discharged as Hopeless and Reported as a Failure.

WILLIAM ALLEN PUSEY.

10. General Nervous Manifestations in Relation to the Jaws and Teeth. GEORGE V. I. BROWN.

4.—See Philadelphia Medical Journal, June 21, page 1109.

5.—See Philadelphia Medical Journal, June 21, page 1109.

8.—Aikin contributes an article entitled etiology and treatment of migraine. He thinks that heredity is an important factor in its etiology. This view is favored by the fact that it makes its appearance in early childhood and continues till after the middle third of life. Dissipation, mental strain, worry, loss of sleep are contributory to migrainous seizures. The author favors the following treatment: From the inception to the conclusion of a migrainous attack, digestion is practically suspended. This condition certainly demands the withholding of nutrients with immediate dilution and elimination of the gastric and intestinal contents. Emesis and lavage of the stomach are efficient, but often objectionable to the patient and inconvenient to the physician. Consent is much more readily obtained for emptying the lower bowel with a soapsud enema, followed immediately by high irrigation with large quantities of hot normal salt solution. This, with small but oft-repeated draughts of hot water by the mouth, continued from 6 to 12 hours, has given better results in his treatment of migraine than any purely drug medication. Between the attacks, daily and copious drinking of water will do more to lessen the severity, if not prevent recurring paroxysms, than any or all drugs with only a minimum of water ingested. It would be quite rational were we to neglect correcting any existing ocular, aural, nasal, gynecological or rectal defect. We must also teach them how to eat and warn them against abuse of their already defective nervous system. [F. J. K.]

9.—Pusey contributes a subsequent report of a case of carcinoma, discharged as hopeless and reported as a failure in the *Journal of the American Medical Association*, of April 12, 1902. The patient, a man, 70 years of age, suffered from an extensive carcinomatous growth involving all the structures in and about the right eye and which finally destroyed the whole eye. The patient was treated with the X-rays; two months after the treatment was begun he was discharged, as the growth did not appear to decrease in size, on the contrary, it seemed to increase and it appeared that the deeper structures were being involved. Five months later the author received word from the physician attending the patient that he had gained weight, that he was free from pain, and that the mass which occupied the orbit had shrunk, allowing the lids to close. The physician believed the improvement to be due to the X-ray treatment. The author remarks that the case is instructive in at least 2 particulars. He writes: It illustrates very strongly, in the first place, the persistence of the X-ray effects. Here is a case in which the effects produced by the X-rays persisted for months after discontinuance of treatment and were sufficient to cause the disappearance of a tumor and at least the symptomatic relief of a case, which upon the basis of all experience could end only in death within a short time. We have been made

familiar by unhappy experience with the progressive and long continued effect of X-rays in X-ray injuries; it is something of a recompense to find these same qualities serving us in the therapeutic use of the agent. The next fact is the evidence in this case of the deep-seated effect of the X-rays. That this tumor involved not only the orbit and orbital bones, but the surrounding intracranial tissues as well, there is almost no room to doubt. The result, therefore, gives unmistakable evidence of the deep-seated action of the rays. Such a case offers another lesson, and that is the disagreeable surprise from the use of the X-rays that may confront one in even the most desperate case of circumscribed carcinoma. [F. J. K.]

10.—Brown reports cases of general nervous manifestations in relation to the jaws and teeth and thinks this condition not uncommon. He contends that the habit may in some instances be an etiological factor in functional nervous disarrangements, or, more often, perhaps only a symptom. But in the therapeutics of such diseases every method of treatment might reasonably be made more effective if its correction receive due consideration. No dogmatic rules can be laid down by which ill effects of this muscle habit may be overcome. Careful study of individual characteristics requires the adoption in different instances of a great variety of methods, simple in themselves, yet requiring the greatest care and delicacy in order to be effective. One of the simplest and most beneficial appliances, one quite harmless and yet capable of very general and useful application, is a hard rubber plate, with soft velum rubber border extending over the occlusal surfaces of the teeth. The palatal portion gives a sense of firmness and security, and the soft rubber covering to the crowns of the teeth makes grinding or serious injury by undue irritation impossible. It need only be worn at night, and thus gives very little serious inconvenience to the patient if carefully adjusted. [F. J. K.]

AMERICAN MEDICINE.

August 30, 1902.

1. The Effect of Rest Upon the Progress of Septic Infection. A. J. OCHSNER.
2. A Case of Primary Malignant Tumor of the Thyroid Composed of Adenocarcinoma and Perithelial Hemangiosarcom (Sarcocarcinoma).

PAUL G. WOOLLEY.

3. Tetanus in the Light of Modern Treatment, With a Report of Three Cases. LAWRENCE E. HOLMES.
 4. On the Diagnosis of Dementia Praecox.
- WILLIAM RUSH DUNTON.
5. Chronic Carbon Moxide Poisoning and Carbonyl Hemoglobinuria; the Latter a Hitherto Undescribed Condition. THOMAS J. YARROW, JR.
 6. Strongyloides, the Correct Name of the Parasite of Conchin-China Diarrhea.

CH. WARDELL STILES and ALBERT HASSALL.

7. Some Sociological Aspects of Preventive Medicine.

A. B. COOKE.

1.—Ochsner emphasizes the value of rest upon the progress of septic infections. He refers to 52 cases of severe infections of the hand in which absolute rest was insisted upon. In his opinion there is no doubt but that the moist antiseptic dressings and general hygienic conditions had considerable to do with procuring the satisfactory results, yet the added factor of complete rest was a valuable aid. He mentions also the excellent results which have followed his treatment of cases of peritonitis complicating criminal abortion. Having had unsatisfactory results from the saline treatment, he has abandoned it and keeps his patients completely at rest by removing any contents of the stomach by means of gastric lavage and then placing them on exclusive rectal alimentation. In severe local peritonitis accompanying attacks of gall-stone colic the condition becomes localized and absorption will take place if peristalsis is inhibited by abstaining from food by the mouth. [T. L. C.]

2.—Woolley reports a case of adenocarcinoma and peri-

thelial hemangiosarcoma (sarcocarcinoma of the thyroid gland). He has been able to find but 3 other cases reported. [T. L. C.]

3.—Holmes discusses the treatment of tetanus and reports 3 cases. These 3 cases may be taken, he states, as more or less typical of the 3 different degrees of traumatic tetanus; the fulminant, in which the prognosis is absolutely hopeless; the acute, in which it is almost so; and the subacute, or chronic, in which the prognosis is more favorable. One of the 3 patients recovered and this was not of the acute variety. Holmes is not at all convinced that the large amount of antitoxin used in the favorable cases had anything to do with the recovery, but believes that the favorable outcome was probably induced by the total removal of the seat of the infection several days before the onset of the first symptom. [T. L. C.]

4.—Dunton contributes a paper on the diagnosis of dementia praecox. He states that the classification of Kraepelin, while open to criticism, furnishes us a satisfactory working basis. Kraepelin states that a large number of cases of mental alienation fall into one of two groups; those ending in recovery are diagnosed as maniac-depressive insanity; while those culminating in dementia are called dementia praecox. The initial symptoms of the 2 groups are sometimes difficult to differentiate. Dunton agrees with Masoin that, while the motor symptoms are not an exclusive symptom of dementia praecox, they are here shown in the maximum of intensity and frequency. Dunton has observed in a number of cases a mechanical irritability of the facial nerve which, when present and associated with mental aberration, is of diagnostic value. It is shown in the following manner; when the patient is tapped lightly over the cheek just in front of the ear, care being taken to exclude any visible influence, there will be noticed a contraction of the orbicularis palpebrarum, varying in intensity from a marked contraction of the whole muscle combined with that of other muscles of the face to a slight quiver of the fibrous or the inferior part of the orbicularis. It will be noted that his phenomenon is quite different from McCarthy's reflex. The increase in the reflexes is the most important means of diagnosis as well as the tendency to sudden impulses. So also is the slow psychical reaction, or psychomotor retardation, of value from a diagnostic standpoint. [T. L. C.]

5.—Yarrow calls attention to the chronic toxemia resulting from the constant inhalation of small quantities of illuminating gas from leaking gas-pipes. He believes that chronic carbon monoxide poisoning occurs more frequently than is imagined and is responsible for many obscure conditions. [T. L. C.]

6.—Stiles and Hassall present a note concerning the designation of the parasite associated with Conchin-China diarrhea and designated by them as strongyloides intestinalis. Reasons are advanced for changing the name to strongyloides stercoralis as described by Havay in 1876 and by themselves in 1902. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

May 1, 1902.

1. Concerning the Pathology of Chronic Lead Intoxication. A. SEELIGMUELLER.
2. The Abortive Treatment of Furuncle (Carbuncle) by Means of Subcutaneous Disinfection. A. BIDDER.
3. Concerning Osteal Plastic Operation on the Tendons. J. WOLFF.
4. The Observation of the Contour of the Stomach Without Any Instrumental Aid. M. J. KNAPP.
5. Concerning the Speech of the Deaf and of Those with Imperfect Hearing. H. GUTZMANN.

1.—The author first insists upon the importance of chronic lead-intoxication in the causation of precocious arteriosclerosis and, further, in the production of habitual abortion. Both of these conditions, as caused by lead-intoxication, he considers to be altogether too little known. The present article is a report of a series of cases of lead-poisoning that has some unusually interesting features. Lead-intoxication from snuff is now comparatively rare; for this reason, a case which the author mentions is of interest. He also mentions a case due to the use of bouil-

ion pots that had lead in the composition; another case which occurred in a physician's wife, and was due to the use of rouge; another that was remarkable for the rapidity of its onset, the man having worked with the metal only 24 hours before he was taken with colic; and several other similar cases. He also describes at length an interesting case in which the diagnosis between saturnine encephalopathy and latent cerebral syphilis was a very difficult one indeed, there being a history pointing to both lead-poisoning and syphilis, and the symptoms strongly suggesting a local lesion of the brain [D. L. E.]

2.—To be continued.

3.—Wolff first describes the case of a patient of 18 who suffered a cut across the palm of the hand that divided the tendon of the flexor profundus and sublimis of the left index finger. The finger was entirely immovable after recovery from the injury. The author carried out treatment by dividing two-thirds of the width of the flexor sublimis tertius, uniting this tendon with the peripheral stump of the index-finger tendon. The metacarpophalangeal joint of the finger could be moved well and the interphalangeal joints could be moved somewhat. The lack of absolutely satisfactory results from some operations has led Wolff to use osteal, instead of periosteal plastic operations. He lays the transplanted tendon in a new insertion-point, which is made by cutting out a gutter in the bone. He then sews the periosteum over the gutter and the tendon which lies therein. In this way a tendon-insertion is provided which is very much like the natural one; and this produces a fixation of the transplanted tendon that is much more satisfactory and much more active than the periosteal. He has carried this out in 4 cases in the lower extremities and in one case in an upper extremity, in all instances with satisfactory results. He states that, by making the insertion of the tendon of the tibialis anticus lower and further backward than is common, the foot is held in the desired position of supination. [D. L. E.]

4.—Knapp states that, for inspection of the stomach-contour, the patient should lie on an ordinary examining table, with the abdomen uncovered and should breathe quietly. The examiner stands at the side or by the shoulder, brings his eyes about on a level with the upper part of the abdomen, and observes the respiration-wave, which can be seen even with very fat persons. During inspiration, one can see a delicate line, which follows the curvature of the stomach. The point at which this line ceases its movement at the end of inspiration is marked upon the abdominal wall. The examiner then percusses very gently, by placing the index and middle fingers of the left hand upon the abdomen, one just above and the other just below this point. If the line marked is correct, the percussion-note of the two fingers should be different. [D. L. E.]

May 8, 1902.

1. The Development and Objects of Orthopedic Surgery. Inaugural Lecture. A. HOFFA.
2. Acute (Trophoneurotic) Atrophy of the Bones following Inflammation and Trauma of the Extremities. P. SUDECK.
3. Abortive Treatment of Furuncle (Carbuncle) by Means of Subcutaneous Disinfection. (Conclusion). A. BIDDER.
4. Concerning the Speech of Those With Imperfect Hearing and Those Who Are Deaf. H. GUTZMANN.

2.—Sudeck states that acute atrophy of the bones may occur after inflammation of large joints, after suppurative processes in small joints or in the soft tissues and in some cases merely in association with the atrophy of the soft tissues. It is particularly likely to occur after trauma. It may be noticeable within 4 or 5 weeks after the beginning of trouble and is often marked after 2 months. Examination shows marked changes in the spongiosa, distinct bone-absorption and in severe cases the structure may be entirely altered. The soft tissues, at the same time, usually exhibit decided atrophy. One of the causes of the atrophy is inactivity from fixation, although at times this is not the case; and, in general, Sudeck thinks that inactivity is only a mechanical factor which acts with other factors and believes that the atrophy has the same cause as the muscular atrophy, which is a common sign of trophoneurosis. The most marked disturbance caused is stiffness of the joints, which is particularly marked in the hands and feet.

Active movements cannot be carried out and passive movements are very painful. The changes in the feet chiefly involve flexion and extension. The pain is often so very marked that it is impossible to explain it by any other condition than a change in the bone-substance. The treatment of this condition is, in the first place, immobilization of the injured or suffering member; but this should not be carried out during a long time and good judgment is necessary as to its duration. Those joints not immediately affected should undergo passive movement at least once a day, even though this be painful; although extreme pain should be avoided. As soon as possible, massage and orthopedic exercises should be carried out. Hot baths are also very valuable and mechanical venous stagnation is likewise useful. Active movements should be carried out as soon and as industriously as possible. The prognosis is at times good; but, as a rule, persistent stiffness remains, and pain is present for a long time. The diagnosis is most satisfactorily made by radiography. If this is not possible, the coincident appearance of trophic changes in the soft parts is extremely important. The differential diagnosis is at times difficult. One is, for instance, extremely likely to mistake the condition for simulation; and the author believes that very grave mistakes of this kind have been made. The cases are also frequently mistaken for secondary tuberculous or for syphilis, and inflammatory flat-foot is often diagnosed. The muscular atrophy in the latter is not so marked, however, and the disturbance commonly disappears or decreases greatly after immobilization. In some cases of so-called hysterical joint, also, Sudeck believes that there has been actual bone-atrophy. [D. L. E.]

3.—Bidder most emphatically recommends the use of subcutaneous injections of carbolic acid about the border of the carbuncle or into its substance, as an abortive method of treatment—a method that is probably already familiar to most persons. The effect he considers to be almost magical. He does not, however, recommend the injections in panaritium. [D. L. E.]

May 15, 1902.

1. The Determination of the Right Border of the Heart by Auscultatory Percussion. C. A. EWALD.
2. A Further Contribution Concerning the Determination of the Size of Internal Organs by Rod-Auscultation. ED. REICHMANN.
3. The Diagnostic Importance of the Old Tuberculin. BANDELIER.
4. A Casuistic Contribution Concerning Hysteria in Children. BRUNO LEICK.
5. Operation in Umbilical Hernia and Hernia Through Abdominal Wounds. HEINRICH.
6. The Technique of Microscopy of the Feces. PAUL COHNHEIM.

1.—Ewald in reply to an article by Grote, recently abstracted from the same journal, insists that one can, by auscultatory percussion, clearly outline the right border of the heart; and that this method is easier than the ordinary percussion. It is not more accurate than ordinary percussion in the hands of a skilled examiner, but the author frequently uses it in teaching those who are merely beginning the study of physical examination. [D. L. E.]

3.—Bandelier strongly insists upon the diagnostic value of the old tuberculin. He especially refers to the discussion in the London Congress on Tuberculosis and states that he is in favor of obligatory use of tuberculin for diagnostic purposes before admitting persons to institutions, both to protect those who have not tuberculosis before placing them among those who have, and to protect inmates of institutions who have not the disease by avoiding the introduction of those who have it. He mentions that in the past year he has made the diagnosis of tuberculosis in 80 per cent. of cases in which he could not find tubercle bacilli. He recommends some general recognition of a proper procedure to use in tuberculin diagnosis. One should proceed with definite doses, preferably one, then 5, then 10 mg.; but it is important to carry out more than one injection in very suspicious cases. The author reports 3 instances in which the first injection of 10 mg. caused no reaction, but in which a second dose caused a pronounced reaction and he was able, at times, to demonstrate a diseased area by physical examination. The use

of tuberculin is also of the utmost importance in determining the occurrence of actual cure of the disease. [D.L.E.]

4.—Hysteria is not such an uncommon disorder in children as it is often said to be. The case reported is that of a boy of nine, who was seen because it was said that for several days he had been unable to write. He was first suddenly overtaken with vomiting and weakness. The next day he was unable to stand or to walk. The paralysis, however, vanished in 24 hours. The boy was sent to school, but showed a peculiar disturbance of his writing: it was almost impossible to read it and it was very much blurred. It had grown worse from day to day. This suggested chorea, but the child had no signs of that disease. Electricity was used for its suggestive effect, and within a few minutes the boy was able to write as well as before. The only possibilities in the case were hysteria and simulation. The latter seemed to be readily excluded in this case, however. [D. L. E.]

6.—Cohnheim describes a small instrument with which he removes feces from the rectum for microscopical examination. He claims that, by means of this, he has been able to determine the presence of parasites, when ordinary examination indicated their absence. [D L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

May 20, 1902. (No. 20.)

1. The Hemoglobinuria of Pregnancy. L. BRAUER.
2. Multiple Carcinomatosis of the Central Nervous System. E. SIEFERT.
3. Architectural Changes in the Department for Venereal Diseases of Women in the City Hospital of Munich. JESIONEK.
4. Casuistic Contribution to Eclampsia. K. KAMANN.
5. Antithyroidin Treatment of Basedow's Disease. SCHULTES.
6. Serum Treatment of Basedow's Disease. W. GOEBEL.
7. Landry's Paralysis in Its Acutest Form. GOSSNER.
8. Two Cases of Isolated Rheumatic Disease of the Maxillary Joint. K. MANASSE.
9. Institutions for Indigent Patients Suffering from Pulmonary Disease. BRECKE.
10. The Question of Mal Perforans Pedis With a Special Consideration of its Etiology. TOMASCZEWSKI.
11. Hans Buchner. F. HUEPPE.

1.—Brauer reports the case of a woman, 33 years of age, with the following history. Just before the birth of her first child she had general pleuritis and diarrhea; after the birth she was yellow. Before the birth of the second child the same symptoms reappeared, as well as before the birth of the third and fourth children. The urine was dark and had a curious odor. Before the birth of the fifth child she was ill with catarrh of the duodenum, apparently as a result of an indiscretion in diet. During this pregnancy the presence of hemoglobin in the urine was determined. The patient recovered and during the sixth pregnancy hemoglobinuria with icterus was again determined. The child had prolonged icterus neonatorum. At this time the patient also had enlargement of the spleen. This appears to be a case of hemoglobinuria due to pregnancy. [J. S.]

2.—Siefert discusses the occurrence of multiple carcinomatous metastases in the central nervous system, having recently observed 4 cases upon 3 of which it was possible to make autopsy. The first symptoms of course are contemporaneous with the invasion of the brain by the carcinomatous process. The primary lesions are usually located in the periphery, often on the boundary between the gray and white matter. They are spherical in shape, sharply circumscribed and if small can be easily overlooked, because they are of about the same color and consistency as the brain. This constitutes the first stage of the process. The second stage is when the surface of the brain is reached: the pia is involved and then the infiltration proceeds along it. Finally the spinal cord is involved, the metastasis in this region forming an irregular cylindrical tube surrounding the cord. Usually in association with the carcinomatous areas there are hemorrhages and some cell infiltration. The symptoms undergo a final change when the spinal cord itself is involved. Siefert believes that, in addition to the mechanical disturbance, there is also a toxic effect. As evidence of this he calls atten-

tion to one case in which there was delirium, symptoms of polyneuritis and in which in the brain and spinal cord foci of recent degeneration were found. [J. S.]

3.—Jesionek discusses the danger of allowing women suffering from various forms of contagious venereal disease to leave the hospital before the disease is so far under control that they are no longer likely to spread it, and the difficulties in the way of the hospital management in controlling this particular class of patients. [J. S.]

4.—Kamann reports the case of a girl, 20 years of age, who was brought to the hospital in a state of profound coma. She was in the ninth month of pregnancy and there was a history of convulsions that had come on at intervals during the past 24 hours. The patient had received a large quantity of chloral by the rectum. There was some edema of the extremities and in the hospital the patient had a typical attack of eclampsia. The patient was rendered analgetic by an injection of tropacocaine into the spinal canal and her condition immediately improved. She became entirely conscious, the labor pains became first stronger and then weaker. In order to avoid a second eclamptic attack another injection was made, after which the pains became stronger and the birth was spontaneous. The patient subsequently developed edema and icterus, albumin was present in the urine, she developed general hyperesthesia and finally died. A diagnosis of necrosis of the liver, due to toxemia from the fetus, was made, death being due to insufficiency of the heart as a result of pneumonia of the left upper lobe. At the autopsy multiple necrosis of the liver was in fact found together with acute parenchymatous degeneration of the kidneys, croupous pneumonia of the left upper lobe and multiple petechiæ in the serous membranes. The necrosis of the liver was very remarkable. [J. S.]

5.—Schultes reports the case of a woman, 49 years of age, who had the typical symptoms of Basedow's disease. She was treated with a preparation of the serum of sheep from which the thyroid glands had been removed. There were marked psychical symptoms before the administration of the serum, but these soon disappeared, and in the course of less than 2 months the patient was discharged entirely cured. The signs of improvement were disappearance of the subjective symptoms, reduction in the size of the neck, diminished frequency of the pulse and disappearance of the trembling. On the other hand the exophthalmus did not disappear. No disagreeable results were noted as the effect of the administration of the serum. [J. S.]

6.—Goebel, starting with the theory that Basedow's disease depends upon the hyperfunction of the thyroid glands and that the symptoms are due to the excessive production of thyroïdin, argues that treatment should consist in an effort to reduce the production of this organic iodine compound. As the thyroid glands are the only organs in which this substance is formed, the milk of animals the thyroid glands of which have been extirpated should contain no organic compound iodine. He therefore treats cases of exophthalmic goiter with the milk of such animals. He selected goats, removed the thyroid and no bad results ensued, excepting that the animal became somewhat savage. He treated patients who were suffering from all the characteristic symptoms of exophthalmic goiter with this milk. One patient was so weak that she could not walk. In the course of a few weeks she was able to walk, the circumference of the neck had diminished, she had gained in weight, the pulse was reduced to 90 beats per minute, all the subjective symptoms had disappeared and some hard nodules that could be felt in the goiter also ceased to be noticeable. He also mentions the case of a man who fell and struck the back of his head so hard that he was unconscious. He developed the symptoms of Basedow's disease, but subsequently became well without medication. [J. S.]

7.—On the 12th. of October, 1901, a soldier noticed slight pains in the left foot joint. Next day the joint was swollen, but recovered under rest and cold applications. On the 16th. of October he awoke and found that he could not turn from one side to the other and that the arms and legs were paralyzed. He had no pain. The history then obtained was, that since the 10th. of October he had had chilly feelings and slight diarrhea. There was complete paralysis of the body below the hips. Passive movements were not in the least involved. Sensation was

not affected, not even the muscular sense being disturbed. There was slight increase of the skin reflexes and of the mechanical and electric irritabilities of the paralyzed muscles. The tendon reflexes were completely lost. There was no fever. The following day the paralysis still continued; there was slight disturbance of swallowing and the next day bulbar symptoms were more pronounced, although the muscles of the face and those employed in mastication were still unaffected. The electrical reactions were still normal. Later in the day the patient had Cheyne-Stokes respiration and cyanosis and died. Treatment consisted of the employment of mercury. The diagnosis was, of course, **acute Landry's paralysis.** [J. S.]

8.—Manasse reports 2 cases, one a woman of 30 and the other a boy of 9 years, who developed pain, one in the left and the other in the right ear. As the ears appeared to be normal and as the symptoms appeared on the opposite side in a short time, more careful examination showed that the pain was located in the **intramaxillary articulation.** In the case of the woman the symptoms disappeared under the treatment with aspirin. There can be little doubt that both cases were **rheumatic** in character. [J. S.]

9.—Brecke believes that it is very important that institutions should be provided for persons of moderate means suffering from tuberculosis. In these institutions the cost should be minimal, so that the patients will be able to remain a sufficiently long time to obtain the best results. [J. S.]

10.—Tomaszewski believes that the etiology of **perforating ulcer of the foot** is variable. In all cases pressure is an important factor. Anesthesia of the foot is not essential to the development of the disease, but there must be either some local condition such as arteriosclerosis or some general condition, such as diabetes, or some trophic disturbance that may be entirely independent, or disease of the nervous system causing it. In all cases it is important first that the pulsation in the arteries of the foot should be determined; second, that the urine be tested for sugar, and third, that the nervous system be carefully investigated. Whether a chronic ulcer of the foot, independent of malperformans exists or not, is doubtful. Tomaszewski reports the case of a man, 51 years of age, who had a chronic ulcer on the left foot. An examination of the nervous system showed some symptoms that indicated syringomyelia and others that indicated multiple sclerosis. The ulcer, however, disappeared in the course of 4 weeks as a result of rest in bed and the administration of potassium iodide. [J. S.]

11.—Hueppe gives a sympathetic account of the life of **Hans Buchner**, the follower of Pettenkofer as professor of hygiene in the Medical Faculty of Munich. Before this appointment he was known chiefly as a bacteriologist and there was considerable criticism of him on that account. In the latter years of his life he had been delicate, suffering from bronchiectasis and finally from cancer of the intestine that led to his death on the 5th. of April, 1902. He was a student of Naegeli's. He was criticised because he believed that the anthrax and the hay fever bacilli were identical. Later his work was valuable, because it showed that many bacteria can lose their pathogenic qualities. He subsequently called attention to the importance of the various phenomena of reaction fever, round cell infiltration, etc., as an indication of the struggle of the organism with disease. His chief work has been in connection with various forms of immunity. As a hygienist his chief work was in connection with the development of new lines of investigation in this subject, believing, as he did, that it was not sufficiently broad. [J. S.]

May 27, 1902. (No. 21.)

1. Multiple Sclerosis and Its Clinical Relations and Differential Diagnosis. G. TREUPEL.
2. Indirect Transplantation of Tendons, with Remarks Upon Their Physiology. M. MAINZER.
3. The Toe Reflex. H. LEVI.
4. Contribution to the Knowledge of the Cause of Human Actinomycosis. K. DOEPKE.
5. The Treatment of Melena Neonatorum.
M. DOELLNER
6. Spastic Mydriasis Produced by a Foreign Body in the Ear. BANDELIER.

7. An Apparatus for the Determination of the Total Acidity of the Gastric Juice. G. SPINEANU.
8. A Case of Tuberculous Meningitis in a Child with Termination in Cure. K. BARTH.
9. Architectural Changes in the Department for Venereal Diseases of Women in the City Hospital of Munich.
JESIONEK.

10. The Physician and Invalid Association. LECHLER.
1.—Treupel believes that the **differential diagnosis of multiple sclerosis** is difficult in connection with 2 groups of disease, those with distinct organic basis and those in which gross lesions are missing. Of course, the difficulty in differential diagnosis from various nervous diseases depends not so much upon the atypical character of these diseases as upon the position of the sclerotic lesions which may simulate tabes dorsalis or other conditions. He mentions the case of a man, 23 years of age, who suddenly developed disturbance of speech, followed, after partial recovery, by scanning speech. Later there was extreme stiffness of the left foot. After several months spontaneous improvement occurred. Later the right leg was more affected; the patient staggered in walking, but improved after the administration of potassium iodide. Later he had imperative laughing, then numbness in the fingers, disturbance of the bladder and rectum, tremor of the head, and both feet were in equine position. The reflexes of the lower extremities were greatly increased. There was slight diminution of the pain-sense in the legs, complete loss of touch sense and normal temperature sense. There was extreme intention tremor of the hands, distinct nystagmus, normally reacting pupils and scanning speech. In the course of 2 years his general condition deteriorated; it was necessary for him to take particular care in swallowing in order to avoid choking. The diagnosis was necessarily multiple sclerosis. He also reports another case in which the patient was struck on the back by a heavy clod of dirt. Several days later, while still working, his legs became suddenly weak and he was forced to go to bed and soon was unable to rise. The joints were all normal; the tendon reflexes of the legs were increased; there were no atrophies; some hyperesthesia and hypalgesia in the right leg. There was concentric contraction of the visual fields. This patient was placed alongside the first one. He developed horizontal nystagmus, passive tremor of both legs, anesthesia and analgesia of the right side and apparently anosmia and agenesia. The patient apparently recovered completely and the original diagnosis of hysterical paraplegia following injury appears to have been justified. The most interesting feature was the nystagmus. He also reports the case of a girl of 18 who, after an attack of influenza, had headache, vertigo and diplopia. Later she had transient blindness and deafness with some disturbance of speech. There was astasia, abasia, intention tremor of the extremities, swaying gait and coarse nystagmus of the eyes. The touch sense was lost in both hands and the stereognostic sense in the fingers. Pain and temperature sense were normal; the tendon reflexes were exaggerated. Although there were many symptoms of hysteria in this case, a diagnosis of multiple sclerosis seems imperative. Finally he gives briefly the history of a case in which the differential diagnosis between paralysis agitans and multiple sclerosis was practically impossible. [J. S.]

2.—Mainzer reports 2 cases in which he **transplanted the peroneal tendons** in order to overcome deformities of the foot due to atrophy of the muscles of the leg. In both cases almost complete restoration of movement occurred and there was only slight deformity persisting. [J. S.]

3.—Levi has studied the **Babinski toe phenomenon**, giving first a careful description of the technique to be employed, then mentioning the frequency with which dorsal extension of the toe occurs in normal individuals, in his own experience, in 55% of all cases; the frequency with which plantar flexion occurs, in his own experience in 86% of all cases. He then touches upon his experience with functional nervous diseases; hysteria, paralysis agitans, epilepsy and others, in practically all of which plantar flexion occurred. Then in cases of organic disease with involvement of the pyramidal tracts, in which the dorsal flexion was almost always present. In 4 cases of locomotor ataxia 2 showed normal plantar flexion and 2 occasionally isolated dorsal flexion of the great toe. He concludes that the toe phenomenon can occur occasionally

in normal persons; is nearly always present in diseases of the pyramidal tracts, especially in the early part of the disease, although subsequently it may disappear. Shaeffer's reflex, that is pinching the Achilles tendon produces dorsal flexion of the toes and contraction of the tibialis anticus, occurs (according to the author) in from 35% to 40% of all persons. [J. S.]

4.—Doeppke reports the histories of 3 cases of actinomycosis which he studied with special reference to the diagnosis of the disease by the examination of the discharge. He made a series of cultures upon various media and numerous experiments with staining, reaching the following results. The diagnosis of actinomycosis can be made either by direct microscopical examination of the unstained exudate, by staining the dry exudate by Gram's method or by staining sections of the tissues. If the characteristic forms are not found, the diagnosis of actinomycosis cannot be excluded. The ball-like forms found among the threads in the cultures represent the permanent stage of the micro-organism. They may develop into streptococcic forms, into delicate slightly bent rods or into short or long and frequently segmented threads. All these forms return to the permanent stage. [J. S.]

5.—Döllner reports the case of a child, 2 days old, who had vomiting of blood. This was repeated, was considerable in amount and there was also a bloody evacuation of the bowels and a diagnosis of *malena neonatorum* seemed established. As the condition of the child was desperate, he injected 10 cc. of a 2% solution of gelatine on 2 occasions at an hour's interval into the skin just at the inner edge of the scapula. The child vomited once more and a third injection was therefore necessary. The vomiting stopped, the next movement of the bowels contained a small amount of blood and the child rapidly recovered. [J. S.]

6.—Bandelier, after a discussion of the different forms of paralysis and spasm of the pupil, reports the case of a woman who had a spastic form of mydriasis. This was apparently produced by a plug of cerumen in the right external auditory meatus, which surrounded a small glass pearl which the patient had placed in the ear. After its removal the pupil immediately returned to normal. [J. S.]

7.—Spineanu has devised a complicated burette arrangement including one tube divided into 1-100 cc., for the purpose of estimating the total acidity of the gastric contents when only small quantities are obtained. [J. S.]

8.—Barth reports the case of a child, aged 2¾ years, with a marked tuberculous family-history, who, after an attack of measles, had vomiting, severe headache, high fever, sluggish pupils, some disturbance of consciousness, retraction of the head and Kernig's sign. The organs of the thorax and abdomen were normal and also the nasal, buccal and aural cavities. Later the pulse was slow, there was Cheyne-Stokes respiration, cramps in the arms and legs and increased disturbance of consciousness. A lumbar puncture yielded some fluid that contained tubercle bacilli. Leaches applied to the mastoid processes gave some improvement, but the child went into a state of collapse and required injections of camphor. Iodoform and various forms of mercury and at last the colloid ointment of Cr  d   were employed and the child gradually improved. It was, however, blind and deaf, could not move its limbs, although there were no apparent paralyses. Later hearing, then speech, and then sight returned and the patient gradually recovered completely. Other cases of tuberculous meningitis, terminating in apparent recovery, have been reported. [J. S.]

9.—Jesionek concludes his paper on the management of the venereal diseases of women in Munich and appends some interesting statistical tables. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

May 19, 1902. (39 Jahrgang, No. 20.)

1. A New Operation for Circular Opacity of the Cornea.
J. HIRSCHBERG.
2. Physicochemical Laws in Gastric Pathology.
MANFRED BIAL.
3. Cr  d  's Treatment of Newborn Infants.
ERNST RUNGE.
4. Degeneration Forms of Pneumococci in Pleuritic Exudates. L. MICHAELIS.

5. The Infectivity of Dirty Finger Nails in Children in Relation to Tuberculosis. K. PREISICH and
A. SCHUETZ.

6. Gonorrheal Cystitis. ROBERT KUTNER.

7. The Acute Infectious Forms of Constitutional Syphilis.
SENATOR.

8. Spinal Disease from a Syphilitic Standpoint. MOELI.

1.—Circular opacity of the cornea occurs but seldom, yet it affects both eyes, as a rule, in young subjects. As it is generally central, Hirschberg advises operation. He describes changes which he made in the von Graefe operation, by which treatment he brings visual acuity from 1/10 up to 1/5 or 1/4. [M. O.]

2.—In a scientific and exceedingly technical article, Bial reaches the following conclusions. Gastric juice which contains hydrochloric acid prevents the fermentation of yeast on account of the presence of sodium chloride. This may deprive the hydrochloric acid of its antiseptic properties. The relation between hydrochloric acid and sodium chloride depends upon the fact that the disinfecting influence of dilute acid upon yeast is proportional to the amount of the H ions it contains. This quantity of H ions in acid may be reduced by physicochemical laws when salt is added, which also diminishes its antiseptic value. In special cases the antiseptic power of the gastric hydrochloric acid rests upon its H ions. [M. O.]

3.—Runge quotes statistics of the G  ttingen clinic to show the value of the Cr  d   method of treating the eyes of newborn infants. He believes a one per cent. solution of argentic nitrate to be sufficiently strong for all cases. He shows that out of 1917 infants treated in this manner not one case of early infection occurred and but 3 cases of late infection were found, 0.156%. This absolutely contradicts Hirsch's statements recently made in Berlin. [M. O.]

4.—Michaelis reports 10 cases of pleurisy with effusion, finding pneumococci in the exudates which showed distinct degeneration. Inoculation was successful only after the exudate had become purulent, which occurred in but one case. In one case of apparently sterile tuberculous pleurisy, these dead, degenerated pneumococci were found. A postpneumonic exudate appears as a rule more rapidly than a tubercular exudate. [M. O.]

5.—Preisich and Sch  tz examined the dirt contained under the finger nails of children from 6 months to 2 years of age for tubercle bacilli. For children often put their dirty fingers into the mouth or nose. Cultures were made and guinea-pigs inoculated. Many of these died of an acute infection, so that the presence of tuberculosis could not be proved. Stained tubercle bacilli were demonstrated in 14 out of the 66 patients examined, 21%. All but 5 patients gave some history of tuberculosis in the family. Of 8 who sucked their fingers, 5 were the patients just alluded to. In most cases the infection comes from bone or gland tuberculosis, the bacilli drying in the dust which reaches the finger nails. When these bacilli enter the mouth, they may cause pulmonary or abdominal tuberculosis. Many other pathogenic bacetria are found in dirty finger nails, which may explain the frequency of enlarged cervical glands. [M. O.]

6.—Gonorrheal cystitis may be acute or chronic: While the acute form is uncommon, urethrocystitis may occur. Or cystitis may be present without any signs of urethritis. With cystitis, when the urine is collected in 3 glasses, the last glass contains a thick sediment of pus cells. Tenesmus may or may not be present. In the treatment catheterization should be put off as long as possible. Kutner advises copaiba, salol and oil of sandalwood, which should cure the condition in 2 weeks. When purulent secretion persists, he uses irrigation with a weak silver solution, not employing a catheter. The diagnosis of chronic gonorrheal cystitis is difficult, for large quantities of pus will be noted in the third glass in posterior urethritis, cystitis, pyonephrosis or combined cystitis and pyonephrosis. Cystoscopy will aid

somewhat, with catheterization of the ureters. The pus must also be examined microscopically and bacteriologically for gonococci. In the treatment he uses irrigation with a strong silver solution through a catheter. Large doses of salol are also necessary. Rarely hemorrhagic cystitis occurs; cystitis may also accompany purulent prostatitis with acute retention of urine or stricture of the urethra of gonorrheal origin. [M. O.]

7.—**Syphilis may simulate an infectious disease**, with fever, anemia, nervous symptoms, eruptions, enlarged spleen, etc. It may resemble measles for a time, though catarrhal symptoms and Koplik's spots are not present. It rarely looks like scarlatina, smallpox or chicken-pox. But it may resemble typhus or typhoid fever; without the bacilli or Widal reaction. Dengue and plague also resemble it closely. At times, early in the disease, it may simulate rheumatism, jaundice and nephritis. Besides, iritis, meningitis, neuritis, strumitis, etc., may be syphilitic. [M. O.]

8.—In the majority of cases of syphilis in which the spinal cord is affected, the brain is also affected. Endarteritis and phlebitis occur with narrowing of the lumen of the vessels and finally their obliteration. From lack of nutrition neuritis follows, with infiltration of the areas deprived of nutrition, leptomeningitis and affections of the nerve roots and conducting fibers. Finally degeneration occurs, with varied clinical symptoms, pain, weakness, atrophy, edema, sensory disturbances, paralysis, etc., often well localized. This may occur suddenly, even so severe as hemiplegia. Locomotor ataxia is most probably always syphilitic, yet this develops more slowly than spinal syphilis. Thus it is plain that spinal syphilis causes a mixed lot of symptoms, absolutely unsystematic and irregular. Some improvement always follows mixed treatment. [M. O.]

May 26, 1902. (39 Jahrgang, No. 21.)

1. Acute Phthisis. ALBERT FRAENKEL.
2. The Mechanism of the Action of Amboceptors.
P. EHRLICH and H. SACHS.
3. A "Tubular Visual Field" in Hysteria.
RICHARD GREEFF.
4. A New Reaction upon Several Reducing Substances in the Organism. G. GABRITSCHESKY.

1.—Will be abstracted when concluded.

2.—Ehrlich and Sachs discuss **complementoid obstruction of amboceptors**. The haptophore group of complements, when they become complementoid, shows a decrease in affinity. But the "closing" effect of complementoids may naturally simulate a failure of amboceptors. The 2 series of experiments reported are atypical. They show, however, that, contrary to general opinion, the amboceptor, unable alone to combine with the cell, undergoes on increase in its affinity by fastening to the complement, and only after that will it react. This serves to sustain the mechanism of the action of hemolysin as described by Ehrlich and Morgenroth, and to disprove the Bordet theory of sensibilization. [M. O.]

3.—Greeff reports a case of **hysteria in a child**, who complained of her eyes. Examination showed a condition of **tubular visual field**, which Greeff states is found only with hysteria. This has been but little described as yet. Both of her parents are very nervous. She looks well, but presents typical painful areas upon pressure, with hemihyperesthesia. Her vision was two-thirds, while the visual field was concentrically limited, being the same at one meter as at 5 meters, therefore "tubular." The difficulty in differentiating hysteria from simulation, by eye tests, is fully described. The ophthalmoscope showed marked venous and arterial pulsation, but no organic heart condition could be found. [M. O.]

4.—Gabritschewsky's experiments with **hydriodic acid and**

sodium iodide show a new reaction with peptone, urine, uric acid, alloxanthin, alloxan, pyrokatechin, hydrochinon, guaiacol, hydroxylamin, hydrazin, sulphuretted hydrogen, sodium hyposulphite, thio-acetic acid, mercapton, etc. When equal parts of the reagent and any of these substances from the human organism were added, a dark blue color resulted. Pyrogallol and tannin first gave a yellow color, later forming blue precipitate. Some albumins gave but a gradual reaction, the color coming very slowly. Ptyalin, trypsin and papain also gave a weak reaction. The reaction failed absolutely with the sugars, glycogen, invertine, urates, xanthin, creatin, guanine, caffeine, tyrosine, hippuric acid, glycocoll, coedine, resorcin, salicylic acid, formaldehyde, benzaldehyde and salicylaldehyde. The chemical reaction resulting frees the iodine, which causes the blue color. The details of the procedure and its possible value are fully discussed. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

May 22, 1902. (XV Jahrgang, No. 21.)

1. Cysticercosis Cerebri Diagnosticated by Lumbar Puncture. FRITZ HARTMANN.
2. The Pathological Anatomy and Parasitology of Typhomalaria. S. A. GAVALA.
3. The Successful Results of Antitoxin in Diphtheria in Melk During the Past 5 Years. MITSCHA.

1.—Hartmann reports the history of a case of **cysticercus of the brain**, involving the parietal regions of the cortex, in a man of 24. He had been vomiting with severe headache and epileptic attacks. There was some loss of memory, and he was very quiet. Percussion over the left parietal region gave a tympanitic note and there was tenderness on pressure over the points of exit of the left auricular and occipital nerves. Slight nystagmus was noticed; there was double optic neuritis and he could not accommodate his eye muscles well, when seeking or moving after anything. Facial movements were slow, while those denoting attention failed absolutely. Salivation was increased. There was no ataxia, but orientation was impossible. All symptoms pointed to an optic sensory lesion. Stereoscopic vision was greatly troubled and he showed an odd speech disturbance. While optic aphasia with astereoscopy existed, optical memory remained intact. Hartmann decided that both hemispheres contained affected areas. Lumbar puncture revealed a jelly-like mass, the parasite. But 2 such cases with autopsy-reports have been described. Hartmann believes that the **cysticercus** exists in **both parietal regions** of the cortex, causing the disorientation of place and time, with disturbances in attention, yet with relatively retained memory and intelligence. The diagnosis was made by lumbar puncture. [M. O.]

2.—During the Turko-Grecian war in 1897, 50 cases of **mixed typhoid and malarial infections** were noted. Out of 30 patients 7 died, in all of whom the diagnosis of mixed infection was confirmed by autopsy. These cases begin with remittent fever, then become irregular. With an evening temperature rise, chills may be noted, followed by perspiration. They lasted about 2 months. Insufficiency of the cardiac muscle is shown by obscurity of the heart sounds and galop rhythm. Epistaxis and gingival hemorrhage occur frequently. Liver and spleen are enlarged and jaundice often occurs. Not only is the Widal reaction present, but plasmodia are found in the blood. Roseola was noted once. Death occurred from hyperpyrexia, peritonitis or myocarditis. While the poikilocytosis, leukopenia, plasmodia and pigmentation are specific of severe malaria, lymphoid changes, typhoid bacilli, etc., are found, beside the ordinary signs of all infectious diseases. Gavala insists that typhomalaria is a true mixed infection, not a separate disease. [M. O.]

3.—Mitscha has collected a table of the cases of diph-

theria treated in Melk during the past 5 years. These statistics confirm the success of the **antitoxin treatment**, though given in private practice in the country. [M. O.]

May 29, 1902. (XV Jahrgang, No. 22.)

1. The Occurrence of Chorionic Epithelium and Grape-like Growths in Teratomata.

FRIEDRICH SCHLAGENHAUFER.

2. Investigations upon Typhoid Spots for Typhoid Bacilli.

CAMILLO SEEMANN.

3. A Case of Triplets. ADOLF HARTMANN.

4. Remarks upon the Article by Kraus and Ludwig upon Bacteriohemolysins and Antihemolysins. M. ASCOLI.

5. A Reply to the Above. R. KRAUS.

1.—Will be abstracted when concluded.

2.—Seemann, after reviewing the literature, reports his attempts to find **typhoid bacilli in the spots in 34 cases of typhoid fever**. In all, 98 typhoid spots were examined, since in some cases as many as 5 different spots were investigated before bacilli were secured. If old spots were cut into, the bacilli therein were so weak that they did not grow upon culture media. In 32 out of 34 cases the diagnosis was made from the discovery of typhoid bacilli in the spots. In the other 2 cases bacilli were not found. Seemann believes this procedure to be valuable in the early diagnosis of typhoid fever. [M. O.]

3.—Hartmann reports a case of **triplets** borne by a woman of 30, 2 of them being girls, the other a boy. The 2 girls had one common placenta and membranes; the boy had another. [M. O.]

4.—Ascoli finds that the experiments as performed and reported recently by Kraus and Ludwig do not disprove the assertion made by him, that in a rabbit the injection and absorption of its own blood can cause the occurrence of isolysins and iso-agglutinins in the serum of the animal. [M. O.]

5.—Kraus states that their experiments were not upon rabbits, but on dogs, goats and horses. He suggests that the above remarks by Dr. Ascoli would not have been made had Dr. Ascoli read their articles through thoroughly. [M. O.]

DEUTSCHES ARCHIV FUER KLINISCHE MEDICIN.

Band 71. Heft 6.

30. A Case of Dermatomyositis. JANOWSKY and WYSSOKOWICZ.
31. Experimental and Clinical Studies Upon Pneumonia. MUELLER.
32. The Relations of Muscular Work to the Frequency of the Pulse. GRUENBAUM and AMSON.
33. The Clinical Features and Histology of Folliclis. ALEXANDER.
34. Two Cases of Rupture of an Aneurysm of the Ascending Aorta into the Superior Vena Cava. REINHOLD.

30.—A woman, 23 years of age, had had pains for about a year, at first in the arms, then in the feet, back and other parts of the body. They were at first slight, but later became so severe that they interfered with motion, and finally the patient was obliged to take to her bed. There was also some pain upon swallowing. When admitted to the hospital an erythematous eruption was noticed upon the face, the muscles were swollen and hard, the joints were not involved, the spleen was greatly enlarged, the temperature was very slightly elevated. The patient gradually grew worse and, in spite of treatment, died of pneumonic complication. Janowsky discusses the literature of **dermatomyositis** and calls attention to the fact that it is a purely muscular and skin affection, the nerves not being involved. The etiology is still unknown, although probably infectious. Wyssokowicz describes the result of the au-

topsy. The liver and spleen were enlarged, there were several ulcers in the duodenum, one of which had perforated. Microscopically there was some atrophy of the fibers of the muscles, indicating a waxy degeneration of their substance, and occasionally small areas of round cells, representing recent granulation. The changes were not characteristic. [J. S.]

31.—Müller has endeavored to determine whether the **normal lungs contain micro-organisms**. He discusses the different methods that have been employed by various investigators on this subject, and reaches the conclusion that in all probability liquid culture media are more certain than solid media. In his own investigations a dog was first rendered unconscious with morphine, then a ligature thrown around the trachea and esophagus, tightened and the dog killed. He was then skinned, the limbs and head removed from the body and the lungs removed in a sterile room, all neighboring objects being moistened with bichloride solution to prevent dust. By this method he found that with solid cultures in 44 cases he had 3 positive results, 33 negative results, and 8 in which cultures occurred upon only one plate. With liquid media, out of 30 cases he had positive 10 in which many of the pulmonary fragments contained germs, 5 in which germs were found occasionally and 8 in which growths occurred in only one tube. The varieties of micro-organisms found were the staphylococcus, sarcina and a red-like form that varied considerably in different lungs and different parts of the same lung, but bore some resemblance to the colon bacillus. It is probable that the advantage of liquid media is that they prevent the destruction of the bacteria by the juices of the lungs, a series of experiments proving that this can actually occur. [J. S.]

32.—Grünbaum and Amson have performed a series of experiments in order to determine the **effect of muscular exertion upon the frequency of the pulse**. The general results are that the pulse-rate is not uniform; even during rest. It is invariably increased by muscular activity, the increase commencing with the muscular activity and continuing throughout its entire period. As soon as the muscular activity stops, the pulse-rate rapidly diminishes. Different individuals show different degrees of reaction, but in general it can be said that the increase depends upon the amount of work performed. If the muscular activity is excessive and continued for a long time it acts injuriously upon the heart. The results of the experiments are given *in extenso*. [J. S.]

33.—Alexander discusses **folliclis**, a skin condition that was formerly called tuberculid. This consists of nodules chiefly on the forearm and back of the hand and the ear. They are hard, heal with the formation of scars and pigment, or else after separation leave a small ulcerated surface, then healing with a scar that is first red, then white, and surrounded with a reddish-brown zone. He reports a number of cases in which, as a result of death from other causes, particularly pulmonary tuberculosis, it was possible to excise portions of the skin and make histological examinations. The changes were necrosis of the tissue, often with giant cells, and it is possible that the skin lesions bear some relation to the tubercular infection, the location being probably determined by the exposure of these parts to injury. [J. S.]

34.—Reinhold reports the following cases: A woman, who for years had had palpitation of the heart and dyspnea, suddenly developed weakness and vertigo, then swelling of the neck, face and arms, cyanosis and edema of these parts, but the lower portion of the body remained pale and shrunken. There was a loud systolic murmur over the heart, very powerful pulsation of the abdominal aorta and distinct pulsation to the right of the sternum in the third interspace. A diagnosis was made of aneurysm of the aorta rupturing into the descending cava, and was confirmed by autopsy. The second case, a man, 66 years of age, had had dyspnea for about 3 months. This suddenly became much worse, he developed edema of the up-

per half of the body, greatly enlarged veins on the thorax; the heart was greatly enlarged, but there was no pulsation to the right of the sternum. A loud systolic murmur was heard at this point. There was no venous pulse in the neck. The patient gradually grew worse and died and an aneurysm of the ascending aorta was found that had ruptured into the descending cava. The interesting fact is that the first patient lived 2 days after rupture and the second nearly a month. Another interesting point is that in neither case was there positive venous pulse in the neck. The murmur, instead of being purely systolic, was almost continuous with systolic exacerbations. The diastolic murmur that was heard in the first case was possibly due to the aneurysm. He also mentions another case that occurred in his service in which the patient, after severe muscular effort, had dyspnea and pain in the region of the heart. There was also edema and cyanosis, the heart was enlarged and there was a short systolic murmur at the apex. The patient suddenly had collapse and died. At the autopsy there was found a dissecting aneurysm and in addition numerous syphilitic lesions in the body. The aneurysm had pressed upon the carotids and caused obstruction of them both. [J. S.]

JOURNAL OF NERVOUS AND MENTAL DISEASES.

April, 1902. (Vol. 29, No. 4.)

1. A Case of Metastatic Carcinoma of the Spine and Meninges. ALBERT C. BUCKLEY.
2. A Case of Intracranial Disease Involving the Chiasm and Also Producing Profound Mental and Nervous Disturbances. B. C. LOVELAND and F. W. MARLOW.
3. A Case of Multiple Lesions of the Spinal Cord and Cranial Nerves with Amyotrophy, Due Probably to Syphilitic Infection. MAX H. BOCHROCH and ALFRED GORDON.

4. Observations on Fifty-four Cases of Locomotor Ataxia, with Special Notes on Etiology. D. FULTON.

1.—Buckley states that Schlesinger found that out of 3,720 cases of carcinoma there were 54 with metastases in the vertebra and meninges of the spinal cord. He adds 5 cases of his own. It is held by some that cancer of the spine may occur primarily, but the bulk of evidence seems to prove that it either occurs as a secondary growth or from contiguous structures. Metastatic growths in the spine most frequently follow carcinoma of the breast. Schlesinger's table gives 10 cases in the breast; 9 cases in the esophagus; 9 cases in the thyroid; 6 in the uterus; 5 in the bronchus; 4 in the stomach; 3 in the prostate, 2 in the gall-bladder; one in the ovary; one in the sigmoid flexure; one in the rectum; one in the kidney; one in the adrenal; one in the pancreas; one not specified. Like other forms of spinal disease, carcinoma produces symptoms referable to the bone, the nerve root and spinal cord. Of the bone symptoms deformity is the most important. Of the nerve symptoms, those sensory are usually the first noticed. Palsy, though not the first symptom, may come on suddenly. In a case reported by Schlesinger no lesion of the cord substance was found, but the nerve roots were distinctly damaged. He also noticed that, when the nerve roots alone are affected, fibrillary twitchings are apt to precede the palsy, and atrophy rapidly follows. The symptoms referable to cord involvement may be slow in onset, the result of an advancing compression myelitis; or sudden, through the displacement of the vertebrae and followed by symptoms of vertebral caries. [T. M. T.]

2.—Loveland and Marlow report a case of brain tumor in which the ophthalmoscopic examination rendered important aid in locating the trouble, viz., by showing that optic neuritis was not present and probably had not existed. The atrophic appearance of the optic nerve was suggestive of secondary rather than consecutive atrophy and consequently indicated a mass pressing on the chiasm and tract rather than with a basic meningitis. The fact that the mental symptoms were more marked than the physical, make it probable that the lesion began in the third ventricle and that most of the symptoms were caused by pressure; later the pressure was limited to the right tract and remained long enough to cause the permanent hemianopic

defect. The polyuria and rapid pulse passed away slowly. The patient had not menstruated nor shown signs of a cycle of ovulation. [T. M. T.]

3.—Bochroch and Gordon sum up their case as one in which there was progressive muscular atrophy of spinal type limited to the lower extremities, pronounced in the whole left leg and less marked in the right leg, with increased deep reflexes and rigidity on the right side and loss of reflexes and flaccidity on the left, slight disturbance of micturition and a characteristic nuclear ophthalmoplegia. The diagnosis of **cerebrospinal syphilis** was made only by exclusion. Multiple neuritis, tabes, anterior poliomyelitis of adults, amyotrophic lateral sclerosis and syphilis of the cerebrospinal axis were taken into consideration.

[T. M. T.]

4.—Fulton gives in the order of frequency the symptoms of 54 cases of locomotor ataxia: Lost knee-jerk, 88%; Romberg's symptoms, 80%; ataxia gait, 77%; lightning pains, 73%; paresthesia, 70%; Argyll-Robertson pupil, 67%; inco-ordination, 65%; vesical disturbance, 60%; paralysis of ocular muscles, 27%; sexual weakness, 25%; diplopia, 21%; girdle sensation, 19%; disturbance of the skin reflexes, 14%; ptosis, 11%; loss of muscular sense, 10%; arthropathies, 8%; perforative ulcers, 6%; crises, 4%; muscular atrophy, 4%; optic atrophy, 2%; nystagmus, 2%. In his opinion there is no therapeutic agent of so much value in combating the degenerative processes and in raising the vitality of the diseased parts and of the entire body as hydrotherapy. Winternitz, after treating 1,000 cases in this manner, says that it is by far the most satisfactory of all treatments. The general indication, as well as indications for the treatment of special symptoms, such as, for example, the cutting pains, are more uniformly and satisfactorily met by scientific applications of hydrotherapy than by medicine. The adoption of methodical exercises by which the patient is gradually retaught co-ordination movements is one of the latest and most successful methods. Another important procedure is the treatment of the gastro-intestinal disturbances and the establishment of a healthy condition of the digestive tract by giving the patient a proper and nourishing diet. [T. M. T.]

JOURNAL DES PRATICIENS.

April 26, 1902. (16me. Année, No. 17.)

1. Epididymitis. FELIX LEGUEU.
2. The Exfoliant Treatment of Dermatoses. LEREDDE.

1.—Legueu presented 3 cases of epididymitis, one blennorrhagic, one tubercular and one syphilitic. He also reported a case of sarcoma of the epididymis. With gonorrheal epididymitis, which affected the anterior part of the epididymis, there was latent urethritis with some discharge. With tubercular epididymitis, also affecting the anterior part of the epididymis, were seminal vesiculitis, prostatitis, pulmonary lesions and a tubercular family history. Adhesions between the skin and epididymis may occur with tubercular epididymitis, with fistula formation. It may also present several nodes. Syphilitic epididymitis affects the posterior part of the epididymis, generally bilateral, symmetrical, preceded by a chancre and accompanied by other symptoms of secondary syphilis, eruption, buboes, etc. [M. O.]

2.—Leredde advises the exfoliant treatment for polymorphous acne, acne rosacea, lichen and follicular psoropomatosis. He uses strongly alkaline soap, resorcin, salicylic acid and betanaphthol. After washing the skin, the strong ointment is applied, once weekly, left on first for 5 minutes, then 5 minutes longer each time until 30 or 45 minutes have been reached. As this causes inflammation, a mild vaseline should be applied afterward. He suggests this method for chronic inflammation of the skin, sycosis, etc. [M. O.]

Peripheral Neuritis With Scarlet Fever.—At a recent meeting of the Société Médicale des Hôpitaux de Paris, Méry and Hallé reported the occurrence of peripheral neuritis in both upper extremities in a boy of 7½ years, during convalescence from a typical attack of scarlatina. Muscular atrophy and radial paralysis were noted, with the reactions of degeneration. The tendon reflexes were normal. Such cases are very rare. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 3, 1902).

[M. O.]

Special Article.

THE CLIMATE OF PORTO RICO.

By T. L. COLEY, A. B., M. D.,
of Philadelphia.

The island of Porto Rico is situated entirely within the torrid zone between the latitudes of 17 degrees 54 minutes and 18 degrees 30 minutes north. Its longitude west of Greenwich is between 65 degrees 35 minutes to 67 degrees 15 minutes. Owing to its position far out on the sea, away from the warm waters of the gulf stream, together with its comparatively small size, permitting the trade winds to sweep it from end to end, the climate is one in which with care natives of the temperate zone may live comfortably after they have become acclimated for a few months. The island is 95 miles long, 35 miles wide and has an area of 3,668 square miles. The coast line is about 360 miles in length, about equal to that of the State of Massachusetts. The total area is 300 square miles larger than that of Delaware, Rhode Island and the District of Columbia combined. The Porto Rican mountain ranges reach a massive height of only 2,000 feet above the level of the sea, with here and there an irregular peak rising to a greater level. The mountain ranges cross almost the center of the island from San German in the southwestern part diagonally to El Yunque in the northeast. El Yunque is the highest peak on the island and is about 4,000 feet above sea-level. The climate, while tropical, is not torrid. The fact that the heat is continuous, although not extreme, makes the climate somewhat enervating. The highest monthly average record in nine years in San Juan was 86° (June, 1878). The warmest day of that period showed a temperature of 100.8°, but there was only one such day. Figures show that the temperature is equable and rises or falls through a very limited range. The highest point reached by the thermometer in San Juan from November, 1897, to July, 1899, was 91°; this continued for one day only in the month of June and on no other day of that month did the temperature exceed 86°. The lowest recorded temperature in the same period was 66°. The winter season extends from October to March inclusive. In the winter of 1898-1899, according to a government report, no oppressive weather was felt during this time. Sudden showers were frequent, coming on mostly at night and lasting but a short time. The unfailing trade winds blow from the east or the southeast during the winter season and make the air delightfully fresh. The nights are without exception cool and comfortable. The summer weather is much harder to bear. While there is but a slight rise in the daily average temperature, much more rain falls and there is a great deal of humidity. In the city of San Juan, which has an elevation of only 100 feet, the continued heat and the unfavorable conditions for the evaporation of perspiration render the summer climate decidedly depressing. In the mountainous regions however, the higher elevation diminishes the amount of heat, and the cities of Aibonito, Cayey and Utuado are cool and pleasant even in the warmest

months. There is a wider range of temperature between day and night in winter than in summer. The mercury sometimes falls during the night to 65° on the coast and 10°, or even more, lower in the highest altitudes. A traveler states that the difference between the temperature in open sunlight and dense shade is so marked that it is actually dangerous to seek shelter from the sun in the shade of tree or jungle when overheated. It is the general belief that pneumonia is commonly produced in this way as well, as many of the pulmonary complaints among the inhabitants. In September and the early part of October the rainfall is excessive, the smallest streams become raging rivers, and miles and miles of the ground along the banks are inundated. Later in October the north and northeast trade winds begin to blow, and from this time until the spring rains set in (in April and May), the climate is delightful. The southern side

Meteorological Data from the Report of the Superior Board of Health.

1899	Barometer			Humidity		Temperature			
	Mean	Highest	Lowest	Mean relative	Dew-point	Mean	Highest	Lowest	Greatest daily range
June	30.03	30.09	29.96	82	73	78.5	95	60	32
July	30.00	30.08	29.92	80	73	79.3	95	58	29
August	29.95	30.03	29.27	81	74	79.3	96	52	37
September	29.96	30.06	29.72	81	74	79.4	97	58	32
October	29.90	29.98	29.77	82	73	78.3	95	58	28
November	29.93	30.03	29.76	85	73	77.5	95	55	33
December	29.97	30.07	29.87	74	67	73.9	94	46	41
1900									
January	30.00	30.07	29.91	82	69	74.2	93	48	37
February	30.06	30.12	29.99	75	67	74.1	98	46	41
March	30.04	30.18	29.92	71	66	74.6	98	43	45
April	29.99	30.10	29.86	75	69	77.1	96	51	35
May	30.10	30.09	29.92	79	72	79.3	97	60	30
Average	29.98	30.07	29.82	78.9	70	77.1	95.7	53	35

of the island is quite dry, a fact which Dinwiddie accounts for by pointing out that the persistent winds from the north have their moisture stolen from them on the high mountains which act as a screen to prevent the rain from being carried to the south. A double range of mountains in the western half of the island still more effectually prevents the equal distribution of rainfall; this accounts for the greater dryness of the section toward the southeast. Porto Rico is a far more preferable place of residence to natives of temperate climates than any other island of the West Indian group. This is largely accounted for by the fact that it contains a very great number of fast-flowing rivers which in the spring-time overflow their banks and enrich the soil and air alike, as well as supply an abundance of pure, wholesome drinking-water. The

most prevalent diseases are gastro-enteritis, dysentery, malaria and pernicious fevers of intermittent or malignant type and, finally, bronchitis, catarrhal affections, pneumonia and phthisis. Yellow fever has never been present in an epidemic form. Cases of typhoid fever are common, owing to neglect of the commonest rules of sanitation. The secondary anemias are prevalent. The death-rate of the island, as shown in the accompanying table, is high, but for this the climate can scarcely be held responsible so much as the character of the population. The

Death-Rates, 1888-1898, Island of Porto Rico.

YEAR	Population estimated	Deaths reported	Death-rates
1888	811,454	25,568	31.5
1889	824,344	26,255	31.8
1890	837,234	26,955	32.1
1891	850,124	24,089	28.3
1892	863,014	24,474	28.3
1893	875,903	21,616	24.6
1894	888,793	24,896	28.0
1895	901,683	26,284	29.1
1896	914,573	25,435	27.8
1897	927,463	31,980	34.4
1898	940,353	33,614	35.7
Average for 11 years . .	875,903	26,469	30.2

majority of the inhabitants belong to the poorer classes and live under the most unfavorable hygienic conditions. Sanitation was practically unknown prior to the American occupation, but conditions in this respect are being bettered rapidly. Dr. A. H. Glennan, of the Marine-Hospital Service, states that in March, 1899, 67 persons died in Ponce, 11 of whom were victims of tuberculosis. The great prevalence of this disease is accounted for, in part, by the fact that under the Spanish régime the military authorities compressed the population within the city walls. On the ground floor of the walled houses, in close and narrow streets, as many as ten or fifteen people sleep in a single room, which is always small, dark and damp. In this brief paper we have given a summary of the chief features of the climatology of this "Island of the Gate of Gold." During the winter months, as a place of residence, travelers agree that Porto Rico is most desirable. The single feature, however, of the excessive humidity must be considered by prospective tourists. While, strictly speaking, the hotel accommodations have nothing to do with climatology, yet from a practical standpoint it remains to be said that there is vast room for improvement, as well as great possibilities for the investment of American capital in this direction. The sanitary conditions of the cities have undergone great change for the better since the island was brought under American rule, but the ignorance and the filthy habits of centuries engrafted on the illiterate masses of the population will be overcome but slowly. The diseases prevalent are, for the most part, entirely preventable by adequate precautions, so that the potential possibil-

Meteorological Data (Porto Rico).

YEAR	Sky			Total precipitation Inches	Wind	
	Clear days	Partly Cloudy	Cloudy		Prevailing direction	Total movement Miles
1899						
June	11	12	7	7.07	E. and N. E.	4,838
July	11	10	10	7.94	N. E.	6,078
August	11	8	12	16.11	E.	5,743
September	14	7	9	9.74	E.	5,685
October	11	9	11	9.63	N.E. and S.E.	5,793
November	13	10	7	10.11	N.E. and S.E.	6,841
December	20	6	5	2.80	N. E.	7,432
1900						
January	16	10	5	4.47	N. E.	8,194
February	18	7	3	4.46	N. E.	7,842
March	19	7	5	1.91	N. E.	10,213
April	14	10	6	7.69	N. E.	9,227
May	14	11	6	6.99	E.	8,950
Average	14	9	7	7.41	N. E.	7,236

ities are promising. Visitors to Porto Rico, as to all other tropical climates, must pay strict observance to the simple rules of hygiene and diet and thus aid in accommodating themselves to their new surroundings.

CENTRALBLATT FUER INNERE MEDICIN.
April 5, 1902.

1. The Determination of the Free Phosphorus in Oleum Phosphoratum. P. GERLINGER.
2. Remarks Upon the Previous Article. C. BINZ.

1.—Gerlinger first notes the importance of determining the amount of free phosphorus in phosphate oil, in order to determine the activity of the latter. No satisfactory method, excepting extremely elaborate ones, has ever been devised for this purpose. He now reports a method which, he states, is sufficiently accurate for the usual purposes. This depends upon the appearance of light as the result of an increase of temperature or a decrease in the atmospheric pressure, these having as a consequence a marked vaporization of phosphorus and oxidation of this vapor. The quantity is determined by the temperature and pressure necessary to bring out any light. [D. L. E.]

2.—Binz makes some remarks concerning the practical value of this method. [D. L. E.]

April 12, 1902.

Infection of Catheters and Making Cultures From Them.
A Contribution to the Pathogenesis of Catheterization, Cystitis and the Methods of Attempting to Sterilize Catheters. BERTHOLD GOLDBERG.

The author discusses the work that has been done on culture-taking from catheters and criticises all the methods that have been used before. After discussing various methods of determining the possible infective power of a catheter, he states that the only satisfactory method is to place the whole catheter in the culture-fluid. Taking cultures from bits of the catheter is not sufficient; for he has found that some portions of it will be discovered to be sterile, while others are infected. It is certainly not satisfactory to take cultures merely from the end or the outside of the catheter, as the interior may be seriously infected. The fact that infection of the interior is important is shown by the following supposititious example: A patient, as yet uninfected by catheterization, but whose bladder can only with difficulty be entirely emptied, is catheterized with an infected catheter. The urine flows slowly, the bacteria clinging to the interior of the catheter are not washed away, and the bladder is not entirely emptied. Then some solution is energetically injected into the bladder. This carries the bacteria with it, and infection takes place. [D. L. E.]

Original Articles.

THE DIAGNOSIS AND TREATMENT OF TUBERCULAR
CYSTITIS.*By JOSEPH B. BISSELL, M. D.,
of New York.Visiting Surgeon to Bellevue and St. Vincent's Hospitals,
New York City.

Inflammation of the bladder, both acute and chronic, is a comparatively frequent disease. The tubercular variety is more common than supposed. It would be much more in evidence still if we were able to make an earlier diagnosis of this condition. Often the disease is difficult to recognize, often it is not recognized early and just as often it is never made out at any stage of the infection. So far back as in 1887 Clado gave it as his opinion that nearly one-half of the cases of chronic cystitis, in which the urine contained pus and mucus, were tubercular, provided these urinary conditions constituted the chief symptoms.

The wretched and distressing picture presented by a youthful patient with this trouble in its active stage appeals to all of us for at least palliative treatment. An early diagnosis holds out more hope to the patient and gives him greater chances of recovery than when the nature of the illness is only discovered late in the course of the disease. The prognosis of tubercular cystitis is at best a gloomy one, and, after a considerable portion of the bladder is involved, the outlook from a surgical point of view is so heartrending that every effort should be made on our part to appreciate this condition early. It is true that this variety of tuberculosis, like the disease when it attacks other organs of the body, in its milder forms, under favorable circumstances and with proper care and attention, may, and does, go on to a spontaneous cure, but that is only a greater reason for making a speedy diagnosis. It is well known that injudicious interference by means of instruments, such as catheters, searchers or instruments for making vesical applications or irrigations, may cause enough trauma to produce the conditions favorable to the growth of the tubercle bacilli. Volkmann says that a severe trauma seldom or never gives rise to tuberculosis at the site of the injury, but that the cause of local tuberculosis is always a slight trauma—so slight at times as to be almost insignificant; the theory being that the active tissue-changes following a severe injury produce reparative processes in fairly healthy tissue, which counteract the growth and propagation of the tubercle bacilli. Other infective bacilli, such as streptococci, the staphylococci or the colon bacilli, as they grow, may bring about tissue-changes favorable to the development of tubercle bacilli, hence the extension of an urethritis, for instance, either simple or specific, may form a nidus for the development of tubercular inflammation.

Believing, therefore, that the best chance of curing tuberculosis lies in its early diagnosis, the writer of this paper asks your consideration of some of the

typical symptoms with a view, if possible, to determining the best means to a certain and early recognition of the disease.

Tuberculous disease of the bladder is rarely primary, arising either from the prostate or kidney, as a rule. Occasionally a case is seen of tubercular cystitis which, apparently hemic in its origin, arises in the bladder-wall itself, at least as far as we can determine. König, however, says emphatically that the disease is always secondary.

Dr. Senn reports a case of a little girl of nine years in whom the disease originated in the bladder-wall.

Some ten years ago the writer had a case of a school girl of twelve, in whom there was apparently no question but that the disease began in the bladder. She was operated on above the pubes and the bladder drained. There were no evidences either of kidney origin or that the disease arose in any other part of the genital system. The kidney is the usual starting-point of infection, although the prostate, seminal vesicles and epididymis are reported as frequent sources of the disease. The mucous membrane of the bladder, when normal, strongly resists infection from the tubercle bacillus, as is well shown in cases of tubercular nephritis, in which the tuberculous urine passes through the bladder for years without vesical infection. The resistance to infection lasts as long as the bladder's mucous membrane remains normal. Any trauma, slight or otherwise, may prepare in the tissues the proper soil for the growth of the tubercle bacillus and thus be the cause of the tubercular cystitis. This may be needless instrumentation, as has been said before, a specific or non-specific urethritis or cystitis, blows or injuries from without. The disease is most frequent in men between the ages of 17 and 40, but it is not uncommon below the former limit and also occurs in females.

As to the characteristic signs: The most frequent symptom in my own cases, and in the cases of most observers, is hematuria. Often the hemorrhage is very slight and with little or no pain, frequently it is not constant. Usually it comes at the end of urination, varying in amount from a couple of drops to a teaspoonful. It is probably the earliest symptom of the disease—so early at times that it may be called a prodromal symptom. The hematuria which comes on later, after the chronic inflammatory conditions are present, indicating the ulcerating stages of the tubercular deposit, is a different hemorrhage. It lasts longer, comes earlier in the act of urination and the pain which accompanies it is often severe.

Stapfer, in 1874, devoted considerable time to the clinical study of tubercular cystitis in a large number of cases in the Paris hospitals. He found that hematuria was a diagnostic sign of vesical tuberculosis. Pain is a pretty constant symptom. It comes on early, continues through the course of the disease and at times is so severe as to make one think of calculus or of malignant ulceration. Tenesmus is usually present with the pain. Frequency of urination is a pretty constant symptom, coming on early in some cases.

As the disease progresses, these signs—pain, tenesmus, frequency of urination and hemorrhage—

*Read before the annual meeting of the American Urological Association at Saratoga, June 13, 1902.

increase. Later pus is always found, either scattered through the urine, as in the early stages—or in shreds, or in the large pieces of ulcerated tissue which appear still later. Large quantities of bladder epithelium are usually found with the pus or before it and point to the bladder as the seat of the disease. Before other symptoms, for several weeks or more, repeated evacuations of clear limpid urine may attract the notice of the patient.

The frequent voidance of clear urine without pain and without apparent cause, with a few drops of bright-red blood at the end of urination, or, less often, preceding it, is almost pathognomonic of beginning tubercular cystitis.

The reaction of the urine is acid, although toward the end it may become neutral or even ammoniacal.

At times mucus is present in enormous amounts. As the disease goes on, the urine may become fetid and almost green in color and contain large fragments of detritus, with blood scattered throughout the urine, instead of coming free at the end of urination as at first. This is, of course, during the period of extensive tubercular deposits and ulceration.

The ulceration may be extensive enough to perforate the bladder-wall and occasionally has sloughed through into the rectum. Incontinence may be present, but is only marked after the tubercular process reaches the neck of the bladder and the latter has been extensively involved.

The cystoscope is of great advantage if used carefully. By it the ulcers can be made out, usually about the ureteral orifices or in the trigone. Earlier in the disease the tubercular process begins with grayish-white nodules which, when seen after coalescing and before breaking down, may be mistaken for a neoplasm, slightly resembling sarcoma. A second examination a short time afterward clears up the diagnosis, because the nodules soon begin to soften and form lenticular ulcers with a sharp ragged border, the bases of which are dotted with caseous material, the neighboring mucous membrane being studded with little gray tubercles. According to Tapret they look like herpetic ulcerations.

"The ulcers are at first circular, usually superficial, edges slightly raised, surrounded by a pale anemic zone set in the deeply hyperemic mucous membrane. These ulcers frequently coalesce, forming larger ones of various irregular forms." (Newman.)

A certain amount of tenderness is present at times over the pubes; it is not marked early in the disease and is usually not present unless the disease is complicated with suppurative cystitis.

Examination per rectum often shows nodules in both lobes of the prostate and thickening of the walls of the seminal vessels, as well as tenderness to pressure in this location.

If the tubercle bacillus is found, it is, of course, a great help, but even in its presence we must differentiate the source of its origin, whether from kidney, ureter, bladder, seminal vesicles or urethra, remembering also that the smegma bacillus resembles it so closely as at times to deceive expert observers. Inoculation of the discharge or of the sediment of the urine into the eye or abdominal cavity

of an animal susceptible to tuberculosis is a valuable aid to diagnosis when after repeated examinations the bacilli cannot be found. Cultivation of the microbe on nutrient media may be tried in order to discover its presence.

But even without finding the bacillus we are able to make, and to make early, the diagnosis of tubercular cystitis in almost every case, perhaps with considerable difficulty at times, but yet with almost absolute certainty.

The family-history of the patient should be carefully gone into and repeatedly, because these patients have a sort of superstitious feeling that they must not tell if any of their uncles or aunts or other relatives have died of tuberculosis of any part of the body, and I have often found, after repeated denials by the patient, that his mother's brother, for instance, died of tuberculosis of the lungs or that one of his immediate family has had white swelling of the knee joints or some other of the characteristic tubercular infections. The personal history is of great value, as is also the thorough examination of all the organs of the patient. Dulness at either or both apices, pleuritic friction sounds, retraction above and below the clavicle, repeated attacks of colds, which are hard to get rid of, or catarrhal manifestations of the pharynx and larynx, as well as the nasal cavities, may lead to a bacteriological examination of the secretion with the finding of tubercle bacillus.

Given a patient with slight infiltration of the apex of one lung, or a suspicious epididymitis, a renal tuberculosis, a tubercular peritonitis or a lymphatic infiltration, even without the finding of the bacillus or any other sign of consumption, who develops vesical symptoms, it is better to consider it a case of tubercular cystitis than to remain in doubt until the contrary is proven. This is a good rule to follow as a matter of routine practice.

The history of a trauma, however slight, whether of an external injury, a previous attack of acute or chronic urethritis, overdistension of the bladder, instrumentation, irritant injection or a common cold producing a congestion of the bladder-wall, may be of great help toward a diagnosis.

Frequency of the calls for urination is somewhat characteristic even in the early stages of disease. If the ulceration or the tubercular infection without ulceration is near the neck of the bladder, this organ soon becomes intolerant of even a small amount of urine and tenesmus and frequency of urination become very marked. In some of my cases it was impossible for the patient to go over ten or fifteen minutes night and day without a call to urinate. This symptom is most marked when the disease is at the neck of the bladder or when this site is included in a more or less extensive ulcerative process.

The pulse in these cases of tubercular cystitis is quite suggestive. It is almost always more rapid than usual. Even when the patients are able to be about their business, it runs from 90 to 110, and any sudden exertion will increase it to a considerable extent, the patient, even when quiet, having a pulse that is above the normal. The temperature is slight-

ly elevated morning and evening. Sudden efforts, like running, jumping, riding rapidly over rough roads, jolts of the body, etc., may cause a sudden desire to urinate, in this way resembling calculus in the bladder. Albumin is usually present in the urine to a moderate extent, probably due to the blood and pus. Tuberculin injections may be of assistance when the diagnosis is doubtful.

The differential diagnosis is to be made with the greatest difficulty from stone in the bladder and from malignant growths. In the latter case the hemorrhage from the neoplasm is characteristic. The blood is profuse and quite intimately mixed with the urine, is present at every urination and throughout the whole of the stream, as a rule. Pain is not usually as well marked or as constant and the bladder, until quite late in the growth, does not resent its presence as frequently or severely as it does that of a tubercular infection. The history is also of importance in making a diagnosis in these cases. The greatest difficulty is in differentiating stone in the bladder from tubercular cystitis. The one disease in its symptoms resembles in a good many ways the other. Of course, the detection of stone by means of the searcher is sufficient, but owing to the pain caused in both these diseases by the use of an instrument, as well as the danger from this procedure, it is sometimes impossible or unwise to make use of a searcher. The tenesmus, in the early stages at least, of tubercular bladder is much less severe than the tenesmus of vesical calculus.

Pain in the glans penis is characteristic of stone and not so much so of tubercular disease. Sudden stoppage of the flow of urine with return to the flow on changing posture is present in calculus, never in tubercular cystitis. A preceding history of renal colic and the symptoms of passage of stone through the ureter is a valuable help. The histories of tuberculosis and of cystitic calculus are so different as to assist greatly in the differentiation. The cystoscope, if it can be used, will settle the question definitely.

Treatment can be divided into medical and surgical or operative, as in cases of tuberculosis elsewhere, excepting in the lungs.

Like tuberculosis of other organs, appropriate general treatment, hygiene, climate, tonics and, above all, local rest will cure a certain number of uncomplicated cases, and all patients have, under suitable care and proper general treatment and surroundings, the hope of prolonging life and relieving, partially at least, the most distressing and painful symptoms; always provided the diagnosis is made in the earliest stage of the affection.

The operative and, to a lesser degree, the mechanical treatment is of doubtful utility and, in place of giving relief, usually does positive harm. To any one who intends trying operative interference in a well-developed case of tubercular cystitis I am tempted, from a vivid and disappointing personal experience as well as from the reports of cases of my colleagues, to suggest for their consideration

the advice of *Punch* to those about to marry: "Don't."

The first indication for treatment of an inflamed organ is to put the organ at rest. If we could apply that principle to these cases, we could in this way save them much suffering and gain a great advantage from which to carry out other local or general measures. But the bladder is an organ, especially that portion of it at which this disease occurs, which cannot be relieved of its work. Mixed infection, which is practically certain to take place if we interfere either by means of applications or instrumentation or by drainage from opening the viscus above or below the pubes, invariably augments the vulnerability of the part, aggravates all of the morbid conditions and hastens a fatal termination. Suppurative cystitis engrafted upon tubercular cystitis increases the liability to pyelonephritis, general septic infection, toxemia and death. When the primary disease is confined to one tuberculous kidney, for instance, which can be isolated, the removal of this may lead to the complete cure of a beginning bladder disease, and this without local interference with the cystic lesion. Such cases of cure are on record. In tubercular cystitis drainage seems theoretically indicated and is advised by many, although, as our experience becomes wider, the most practical surgeons drain less and less and some of us not at all for this form of cystitis. Drainage, if performed, should be by the suprapubic route, as it opens the bladder at a distance from the local lesion. The difficulty in making perfect and satisfactory drainage and the constant danger of pus infection is a very grave objection to what would seem at first sight the best possible way of treating the infected cystic neck, thus fulfilling the cardinal indication for the treatment of all inflammations, to relieve the inflamed organ from work and put it at rest.

Until an operation is perfected which promises more than any now at our command, the writer believes that the best chance of recovery for this disease is in the general treatment, in the effort to eliminate the cause, bacteriological and predisposing, and in building up the resisting power of the tissues of the body, those not yet involved as well as those already affected.

The Relations Between Tuberculosis and Scarletina.—Of 128 cases of scarlet fever observed in 40 months, Simonin found 5 patients with tuberculosis. Mild scarlatina in a young man in the first stage of phthisis caused the development of pleuropulmonary congestion, which soon disappeared; in a young man with a phthisical cavity, typical scarlatina caused generalization of the pulmonary lesions; in another young man severe scarlet fever was followed by phthisis on the seventh day, with empyema, nephritis and death on the twenty-ninth day; and 2 patients, dying from malignant scarlet fever, showed signs of latent tuberculosis post mortem. Simonin shows that scarlet fever and tuberculosis do antagonize one another; the scarlet fever in a tubercular subject may be benign, though it cause exacerbation of the tuberculous process; or, that it may be malignant from the beginning, resulting, when latent tuberculosis exists, in modifications in the liver, causing acute insufficiency of its antitoxic functions. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 3, 1902.) [M. O.]

INDICATIONS FOR, AND TECHNIQUE OF OPERATION FOR NEPHROPTOSIS.*

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The importance of nephroptosis as a factor in producing renal disease, and disease of the female pelvic organs as well, is not generally appreciated, else the utility of nephropexy would be more universally recognized.

It is not unusual to hear it asserted that nephroptosis either does not produce symptoms or, if it does, they are not of sufficient gravity to warrant operation, and there are still to be found some who advise belts and pads, though they must know very well that such supports neither replace the kidney nor even sustain the kidney effectively, though they may afford relief of some of the symptoms at first. The irritation of the kidney which must result from the constant pressure of these external supports is ignored. They are often discarded by patients, because they produce discomfort in the region of the kidney.

Nephropexy may be regarded as a fad of the surgeon by those who have not carefully investigated the subject or given it the attention it deserves. But who is the better judge of the necessity for operation in these cases, the surgeon who sees these kidneys on the operating table and has the opportunity to observe the structural changes that have resulted from the prolapse, or the physician who does not recognize the symptoms or their gravity?

Nephroptosis always produces symptoms when it has advanced to the third degree or beyond—that is, when the whole organ is below the lower border of the last rib in front. If symptoms are not found in this stage of descent of the kidney, it is because they are not recognized.

In a paper just presented to the Gynecological Section of the American Medical Association I have shown that the prolapsed kidney, by interfering with the return circulation from the pelvis by pressure upon the ovarian vein, acts as a cause of disease of the female pelvic organs. Here alone may be found justification for considering this condition a grave one, entitled to be placed beyond the pale of palliative treatment. But apart from this, nephroptosis deserves more serious consideration than is generally accorded it, because of structural disease of the kidney itself that may arise in consequence of prolonged congestion or obstruction to the outflow of the excreted urine which results from the prolapse.

In advanced degrees of prolapse (third and fourth degrees) we may find nephritis, perinephritis, pyelonephritis, hydronephrosis, pyonephrosis and atrophy; and extravasations under the fibrous capsule and also between it and the fatty investment of the organ are not uncommon in cases of long standing.

In the early stages of prolapse, when the kidney has not descended below the last rib in front, it may not produce symptoms and there may not be

sufficient interference with the circulation of the organ or obstruction of the ureter to cause disease of its structure, hence operation is not required. The condition should not, however, be neglected at this stage, since the prolapse is inevitably progressive, for when once the kidney has commenced to be abnormally movable and descends to the second degree, it continues unless its descent can be arrested. Belts or other forms of external support that do not make pressure directly upon the kidney should be employed at this stage, to prevent or retard further descent, if this be possible.

Operation is therefore not advised for prolapse to the first or second degree, except when the left kidney is found to be in the second degree of prolapse at the time of operation upon the right. Then the left kidney should be fixed at the same time to avoid the necessity of a second operation which would otherwise be required subsequently.

But when prolapse of the third degree or beyond is discovered, the operation for its fixation should be done without delay, unless the kidney is found to be irreparably diseased. Operation is necessary in these cases, not because of the symptoms, which, it must be admitted, are seldom unbearable, but because prolapse of the kidney in this stage gives rise to pelvic disease and because structural disease of the kidney may develop at any time.

In answering the question, "How shall the kidney be fixed?" I will not attempt to discuss the different methods that have been devised, but will describe the special features of one which I have employed with uniform success in 109 cases, in 27 of which both kidneys were fixed at the same time, making a total of 136 nephropexies.

The method that offers the best chance of permanent fixation, with the least injury to the kidney structure, and restores the kidney as nearly as possible to its original position is, I think, to be preferred.

If permanent fixation can be secured without depriving the kidney of its protecting fibrous capsule, it would seem unwise and unnecessary to inflict such injury, and the adhesion thus secured between the raw kidney structure and the structure with which it is brought into contact must be unreliable and insecure, because the kidney structure is so extremely friable. The insertion of sutures deeply through the kidney structure is very objectionable and offers no advantage, since the suture does not hold any better for including a quantity of friable kidney structure. The fibrous capsule is the only structure that offers any reliable hold for the suture and can alone be depended upon. But it is necessary to insert the suture under it in a manner that will utilize its resisting power to the best advantage. The same objection obtains to penetration of the kidney structure by muscular or fibrous bands taken from the structures of the back.

The position of the kidney after fixation is not unimportant, for if it is too low it will be pressed upon undesirably by the corsets or clothing at the waist, and much discomfort will arise in consequence, to say nothing of the irritation to which the

*Read at the First Annual Meeting of the American Urological Association at Saratoga, N. Y., June 13th., 1902.

kidney is constantly subjected and the injury that may result therefrom.

Finding the prolapsed kidney, as we so often do, firmly adherent within its fatty capsule as the result of perinephritic inflammation, convinces me that, in order to secure permanent fixation, it is only necessary to immobilize the kidney for a sufficient length of time after exciting the necessary degree of irritation to induce plastic inflammation about its surface; and this is accomplished by the manipulations required to peel the kidney out of its bed of surrounding fat. Therefore, temporary sutures, inserted so they will not cut out and tied upon the skin surface so they will not cut and permit the loop to loosen and allow the kidney to move, are sufficient.

A vertical incision is made along the outer border of the erector spinæ from just below the last rib downward through the skin and fat down to the superficial layer of fascia; this is divided with scissors, the underlying muscles are separated in the direction of their fibers by means of blunt hooks and are held apart by broad retractors. The fatty capsule surrounding the kidney, which is exposed after dividing the deep layer of fascia, is drawn down and opened well up and well over toward the spine to avoid opening the peritoneum or wounding the intestine which bulges up into the wound. The kidney is then separated from its fatty investment all around and that part of the fatty capsule covering its posterior face is removed completely. It is important to separate the kidney completely from its attachment to the intestine upon its anterior face to obviate dragging upon it from that source. The redundancy of the fatty capsule on this side is also removed, taking care not to encroach upon the intestine or peritoneum.

The suture material employed for the temporary sutures is silkworm-gut rendered pliable by a method that I have described elsewhere.* The needle used is very small, so as to cause as little injury as possible to the fibrous capsule.

Two sutures are inserted, the upper one at about the center of the kidney and the other at about the junction of the middle and lower third. The lower suture is inserted first from above downward under the fibrous capsule only for a distance of about half an inch from its entrance to its exit; then it is inserted transversely about the same distance, and again from below upward at an obtuse angle to the transverse insertion. Thus this suture has three insertions under the fibrous capsule only. The upper suture is inserted from above downward and from below upward, leaving the suture exposed upon the surface transversely for a distance of three-quarters of an inch.

The ends of these sutures are carried through the structures of the back and brought out on the surface at the upper angle of the wound just below the lower border of the last rib. They are tied across the line of incision over a fold of several layers of

gauze, which obviates cutting of the skin by the sutures and loosening of the loop.

When these sutures are both tied, the upper pole of the kidney is drawn up into its original position under the ribs and its lower half is brought into intimate contact with the muscles exposed in the wound. The kidney, which before could be seen to move up and down with respiration, is now seen to be immovably fixed.

A strip of gauze is packed under and about the lower pole of the kidney and the end is brought out at the lower angle of the wound for drainage. This furnishes additional support to the kidney, lessening the strain on the sutures while it remains, and excites plastic inflammation. Iodoform gauze (5 per cent.) is used, because it is somewhat more irritating than the plain gauze, but it is not wise to use a higher percentage of iodoform, because of the susceptibility of some patients. In one of my cases iodoform poisoning resulted from using 10 per cent. gauze freshly prepared with alcohol and ether. The gauze is removed always on the second or third day following the operation.

In closing the wound, a continuous suture of plain catgut is used for approximating the superficial fascia, and interrupted adhesive strips upon the skin surface.

The patient is kept in bed for three weeks. During the first week she is kept constantly upon her back, being turned upon the side only to renew the dressings.

The sustaining sutures are not removed until the day before she gets up. Primary union is the rule, and the resulting scar is not disfiguring.

It is advisable to have these patients wear a snugly fitting elastic abdominal belt upon getting up and for several months after, as most of them have lax abdominal walls, which, if not supported, deprives the kidney of the normal support of the abdominal organs.

THE TREATMENT OF UREMIA (MIXED TOXEMIA).*

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The few remarks I shall make on the topic assigned me will be much simplified by dropping the term uremia and substituting the term *mixed toxemia*. Rational therapeutics of the condition under discussion, in my opinion, has been much retarded through the teaching that it is in the kidneys where is manufactured the poisonous element at the basis of the symptomatology to which the term uremia has been mistakenly applied. It is my belief that this symptomatology is dependent on a toxin emanating in part from the kidneys, in part from the liver, in part from the intestines and, when pregnancy exists, in part, possibly, from the body of the fetus. Looking at the question from this broad definition standpoint, the therapeutics may be summed up in two words—*elimination* and *derivation*.

For the purpose of this discussion I would state that, since I only see this mixed toxemia as a post-

*The Technique of Surgical Gynecology, by the author. International Journal of Surgery, Co. Med. Publishers, New York, 1901.

*Read before the American Urological Association, Saratoga, May 1902.

operative sequel or as a complication of pregnancy or the puerperal state, it is from this standpoint that my remarks are made.

The treatment of this mixed toxemia may be considered to advantage under three headings: The prophylactic—the treatment which aims at warding off toxemia; the emergency treatment—that which is applicable in the presence of toxemia; and, lastly when pregnancy exists, the surgical treatment.

The prophylactic treatment consists in throwing as little strain as possible on the chief emunctories of the body (the kidneys and the intestinal canal), on securing free action of the liver—that organ of the body which furnishes nature's intestinal antiseptic, on promoting activity of the sweatglands—the organs which, after a subsidiary fashion, relieve both kidneys and the intestinal canal. In short, when the kidneys are spared undue strain, when the intestinal canal (the great sewer) is maintained in action, and when the sweatglands are functioning actively, impending toxemia of the type under consideration may at times be warded off well nigh indefinitely. I have in mind, to cite types, a sufferer from interstitial nephritis from whom, seven years ago, I removed uterus and fibroids by the suprapubic route, who enjoys good health just so long as she lives along the dietetic and hygienic rules specified, but who develops active gastric and cerebral symptoms of toxemia whenever she deviates from this line. In my experience the prophylactic therapeutics consists in absolute milk diet associated with some form of readily assimilated iron, a Turkish bath at stated intervals, when cardiac complication does not enter as a factor, and the administration of one or another of the drugs which experience teaches us favor the action of the liver, my personal preference being elaterium in small and repeated doses. It goes without saying that, in instances in which the cardiac action gives concern, this should be attended to by that prince of heart regulators—digitalis. Lastly, plenty of water ingested cleans out the human sewers to great advantage. And just here I would say that the ordinary drinking water of our cities is as potent as, and far less expensive than, the numerous lithia and other vaunted waters, the advertisements of which burden our daily mail. In short, the prophylactic treatment of toxemia calls for a minimum of drug and a maximum of common sense.

When toxemia is imminent or active, the same line of therapeutics is demanded, only, as a rule, the drug element enters as a more powerful factor. Our efforts still aim at powerful elimination and often as well at restoration of function. The liver is apt to be clogged, the kidneys insufficient, the intestines torpid and the skin inactive. Great strain is thrown on the heart, and this organ not alone needs support but often depletion. The drugs which are of utility to fulfil the cardinal indications are few in number and they should be used boldly and yet cautiously. All drugs which tend to whip the kidneys, so to speak, should be avoided. The potassium salts, for instance, are distinct irritants and yet hold high rank in the therapeutics of many. The nitrites have a

deservedly high reputation, and the best form in which to administer them is as nitroglycerine hypodermically. This drug, according to indication, I am in the habit of pushing fearlessly, to the extent of one-twentieth of a grain hypodermically, repeated every fifteen to twenty minutes. The effect being evanescent, we need not fear these apparently excessive doses. The drug dilates the cutaneous vessels and thereby relieves the engorged right heart as well as congestion of other organs. It is a good plan to associate digitalis in the medication, for the reason that it is the most reliable of all drugs for toning up the left heart. Indirectly thus diuresis is promoted without the spurring of jaded organs so apt to follow the use of the so-called diuretics. To promote the action of the liver I am fond of a reliable preparation of elaterium, given in one-eighth-grain doses at intervals. The depressing effect which this drug is said to possess will not be noted when digitalis enters into the treatment at one and the same time. Continuous high hot saline irrigation of the bowel promotes intestinal action and results in profuse diaphoresis, and this, too, without the evil effects which are apt to be associated with jaberandi or its alkaloid, pilocarpine. By continuous irrigation I mean the use of gallons of hot water thrown high into the bowel and allowed to come out. This procedure often should be kept up for hours. By means of measures such as these I kept a woman alive for two hundred and forty hours without securing an ounce of urine and without the development of active toxemia. The case is recorded at the Columbus Hospital, and the anuria followed a hysterectomy for fibroids in a subject of Bright's disease in whom catheterization of the ureters certified to the fact that I had not tied these organs.

When toxemia is active, chloroform is one of the sheet-anchors. Whilst the subject is under its influence, the therapeutics outlined above may be followed, the hypodermic method and the rectum being used for the exhibition of the drugs which are of utility. When the pulse is full and bounding I much prefer venesection to that much-lauded, but in my hands unsatisfactory, drug, *veratrum viride*. The use of opium I am opposed to, since it defeats our prime aims—derivation and elimination. Opium paralyzes peristalsis and checks secretion and excretion. If it seems wise to use calmative drugs, chloral and sodium bromide by rectum are at our disposal, but the dosage must be large, that is to say, at least sixty grains of chloral and one hundred and twenty of the bromide should be thrown high into the bowel.

The one occasion in which surgery enters as an adjunct into the treatment of toxemia is when the phenomena ensue as a complication of pregnancy. Here the best results in my hands have been yielded by evacuation of the uterus as rapidly as is consistent with the integrity of the maternal parts. At one and the same time the eliminative treatment I have outlined should be resorted to and, when the condition of the pulse demands, the uterus having been emptied, the organ should be allowed to relax and the woman to bleed—a form of venesection

under the circumstances just as reliable as though the blood were drawn from the arm.

This brief outline of the views I hold in regard to the treatment of toxemia is offered after a suggestive fashion, since the time-limit imposed prevents amplification on my part. It is apparent that my aims are not against urea or its derivatives, which, some contend, are circulating in the blood and are responsible for the symptomatology. This toxic agent doubtless, in a measure, enters as a causative factor, but it is taking entirely too narrow a view of the toxemia to speak of it alone. There are other toxins at work, and in all probability the future will teach us that the chief ones either emanate from the liver or that the biliary salts become altered into something of a high toxic nature somewhere in the intestinal canal. Thence the rational therapeutics I have endeavored to outline, which is directed not alone or chiefly at the kidneys, but at these organs and at the liver and at the intestinal tract as well. Certainly, since I have secured this broader view of the subject, my results in treatment have been greatly bettered. The therapeutics may well be summed up in the words: Dietetic, hygienic, eliminative and derivative.

A NOTE ON SOME PSYCHOSES OF EARLY PUBERTY, WITH REPORT OF A CASE IN A BOY, TWELVE YEARS OLD.*

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The study of that period of life which is characterized by a transition from childhood to puberty is one of the most interesting and important from a practical standpoint. The physiological function that modifies so profoundly the physical and moral condition does not show its influence at the same age in both sexes. Various factors play their role in establishing the date of puberty. It is therefore difficult to give an exact age, when a child enters into puberty.

In childhood all the faculties are only somewhat developed, the emotions are not profound, because of the want of a guiding principle in utilizing the acquired knowledge. Its acts are rather the result of instinct or sentiment. Briefly speaking, there is a great versatility and capriciousness in the child's nature.

When puberty approaches, a physiological crisis takes place in the life of the child. The intellect begins to predominate over the instinct or sentiment. The intellectual attitudes take a more determined direction, the character and individual inclinations become more pronounced, the young imaginary power becomes more developed. But before puberty is completely established, there is a struggle between the child's nature and that of the coming man or woman. A conflict takes place between the child's tendencies and those that characterize the man or woman. A new life, new impressions, new calls upon nature, new desires, new pleasures are open before the boy or girl. The juvenile mind full of

rising imaginations is apt to suffer, if no restriction is applied to the organic or psychic struggle, especially when a hereditary neuropathic taint is present.

The transition from childhood to puberty is very favorable for development of hereditary affections. The changes that this epoch of life produces in the intellectual and physical spheres are often the source of various psychic disturbances.

The normal psychological acts may be arrested, disturbed or perverted in their evolution, and this is especially evident in predisposed individuals. Painful or abundant menses, defective nutrition or an unusual physical and intellectual labor, a physical or moral shock, are the habitual causes of the psychoses, but a certain condition is indispensable for their development, viz. heredity.

Mental disorders of early puberty may be various; they may present themselves in the form of a pure psychosis, mental degeneracy, dementia præcox etc. But there is a form of psychosis, which occurs very rarely in late childhood or early puberty, at least the number of cases recorded is very small.

The disturbances from which these patients suffer, although various in their manifestations, appear to be closely related. Properly speaking, they are not insanities and, to use Trélat's expression, they constitute the so-called "lucid alienation." They occupy an intermediate state between the neuroses or psychoses and true insanities. They border upon insanity and may do so for a long time without actually crossing the line. If these patients do become insane, they may remain as such permanently or recover only temporarily. They are individuals whose mental or nervous equilibrium has not a solid basis and is constantly threatened with a break. They are usually burdened with a heavy hereditary predisposition, which may show its effect either in the intra-uterine life or in early infancy. They are Morel's degenerates.

At present I have in view only those degenerates whose mental symptoms are only episodic in character, symptoms which present psychopathic disturbances, but with total lucidity of mind.

The following case appears to be of particular interest:

S. B., a boy, 12 years of age, came first to see me in September, 1901, with the history that 3 months previously he began to suffer from attacks of fright, the attacks being provoked by even trifling incidents. Whenever a fright comes on, he cries incessantly. Although he tries to control himself, he fails. He frantically scratches his hands and face and becomes depressed. The attacks of fright are quite frequent and the boy has himself come to the conclusion that there is something wrong with him, and he is probably insane. When this feeling is present, he fails utterly to overcome it. He is also afraid to remain alone in a room or to leave the house, somebody must always accompany him wherever he goes. He is perfectly conscious of his condition, makes repeated attempts to overcome this feeling, but finally must give up the battle. Shortly after the attacks of fright made their appearance, a new set of symptoms presented themselves. Patient says, that, if in walking he attempts to step over an object, he becomes very undecided; he attempts to do it several times and finally succeeds. He persists for fear that something will happen to him if he does not succeed. When he does step over, he is instantly seized with a tremor, begins to cry bitterly and feels depressed. The indecision in stepping over the object will last about 10 or 15 minutes, and the after-effect mentioned will torture him for not less than half an hour. The objects that he fears

*Read and case exhibited before the Philadelphia Neurological Society, April 22, 1902.

to step over are only those of small size, like pieces of paper or stone, brick, etc.; he has no trouble with objects of larger size. He says that many a time he tried to avoid the object lying in his way. He may try, for instance, to walk around it in order to dispense with stepping over, but every time he will fail in his attempt. The obsessions are so overwhelming that he will return to the object, place himself in front of it, and pass through the struggle and torture. After each struggle he will feel totally exhausted. Moreover, he will not go out of the house if the street is not clean, for fear to find a straw or pieces of paper which he will have to step over. This is not all. This little martyr has since developed a new symptom, viz.: *déire du toucher*. Whenever he takes an object into his hands, he must put it back in the same place, otherwise he will become excited, will cry and suffer. Likewise, if anyone will take something out of his hands, the same person, and no one else, must return the object to him and place the object into the same hand in which he held it before. If anyone happened to touch him or lay hands on him, the patient must repeat the same act in an exactly similar manner and on the same person; if he is prevented from doing this, he will cry, tremble and suffer indefinitely, until he is allowed to return the act and to the person who touched him before. When his mother asks him to hand her an object, he will do it willingly, but as soon as it is in her hands, he will insist upon it being returned to him; if his wish is not complied with, he will get another attack. When he attempts to place one object beyond another upon a table, he is obliged to pass around the first object instead of over it. If he attempts to pass one object over another, he gets an attack of crying. Whenever he is spoken to in an unpleasant manner, he feels that he must reply in the same way; if not, he will suffer indefinitely and cry. As soon as he gets satisfaction, he becomes composed and feels his natural self and happy. Other symptoms have likewise shown themselves. His mother says that a few days ago he wrote a letter, which act he accomplished in a perfect manner; as soon as he finished the letter, he began to cry and tremble, begging her to burn it, so that no trace be left of it, but if she only tears up the letter, he must see the pieces of it, which he then destroys himself. He has also begun to feel that he cannot read or write; whenever he attempts to do so, he will commence properly, but will be compelled at once to stop for fear that he cannot keep it up and that he will have an attack. A similar feeling is feared by him in doing anything at all, so that he is now compelled to remain idle all day long. For these reasons he gave up school. The father says that, when the patient's sister is writing, he always has the uncontrollable desire to correct her, but as soon as corrected she must erase the correction immediately or he will have an attack. This has been his condition from September until the middle of November, when he developed visual hallucination. While going downstairs in broad daylight he imagined that a woman of unusual height and frightful face stood before him and attempted to do him bodily harm. Since then he became affected with other visual hallucinations, which have tormented him day and night. These hallucinations occur especially at night and persist in the early morning, they recur several times through the day. In the middle of November the patient's disposition changed entirely; being naturally of a quiet and good disposition, he developed attacks of anger which would last several hours. He would answer his mother, whom he respected before, in a very sharp and rude manner, which was quite unusual for him. A little friend of his called once and said something which displeased him, he became enraged and tried to get revenge, and would have injured his playmate, if his mother had not interfered. For several days he was in a state of marked excitement, but became very restless. He would walk from one place to another in a state of great excitement. He could not tolerate the slightest contradiction, so that he would assault his brothers and sisters, inflicting lacerations and bruises, when they would not agree with him. This maniacal state lasted about 10 days, after which the condition changed. At first he was taken with spells of laughter; he would laugh without any cause; no matter what question is put to him, he would laugh loud and for a considerable time. Then the mother stated that a radical change for the worse took place. He would not talk at

all to anyone in the house, he would spend the time in speaking to himself in a very unintelligible manner and remain in one place for several hours in succession; he would not ask for food, if it were not offered, and then he would eat very little. This lasted also about 8 or 10 days, when excitement again supervened. This was now accompanied by visual hallucinations of a grave character; the latter were of a persecutory nature. This time the attack lasted only 5 or 6 days. It was succeeded by a phase during which the patient was obliged to repeat the same words 8 or 9 times before he was sure that the sentence was correct. The same was noticed in reading and writing; he was obliged to erase some words, write them again and again, otherwise he would cry and tremble.

From the time I first saw the patient, until the middle of December, he continually complained of being tired and worn out. He affirmed that the slightest exertion, even a walk of one square, would exhaust him. He also presented a marked weakness at each attempt at sustained attention, and an impossibility of making any intellectual effort more or less prolonged. At the beginning of each day he would feel, to use his own expression, the heavy load of his miserable existence. He had a painful sensation of cephalic emptiness, pressure upon the temples, vertigo, digestive disturbances, coldness of the extremities. Anorexia was complete, constipation was also present. He complained of dyspnea on exertion. The physical examination revealed nothing abnormal, the pupils were equal, reacted to light and the visual fields were normal. Tongue slightly coated. Sensations normal. Pharynx, however, partly anesthetic. The first sound of the heart was rough and prolonged. The pulse was 100 at each examination.

His personal history, previously to the present trouble as well as his family history, presents a few interesting points. About 2½ years ago patient began to show symptoms of being frightened. Once a dog attempted to seize a piece of food which he held in his hand. Since then he presented at times visual hallucinations, dogs figuring mainly in them. At the age of 5 he suffered from night terrors and had a recurrence of the same about 18 months ago. The patient was always considered unusually bright. This statement was corroborated by his teachers, whom he would astonish with the progress he made in his studies. When he first came under my care, I was somewhat surprised at his answers and remarks. They did not correspond to his age. He recited to me his troubles like an older person, complaining of being a burden to his family, as he could not get well. He is perfectly conscious, he says, of what is going on, but he would rather relieve his parents of his presence, as instead of helping them in life he is an impediment to their happiness. All his conversation and behavior is rather that of an adult or of a mature man. As to his parents, the father also suffers from fears. He cannot be alone in a room. At the age of 8 he also suffered considerably from obsessions. For a long time he felt that frogs would crawl up his sleeve, down his back, under his hat. The mother is distinctly neurasthenic. They have three daughters, who also are considered unusually bright.

The patient was under observation until the end of December, during which time he was kept away from school and substantial food and tonics were administered. General hygiene and daily promenades in the park were kept up regularly. At the same time efforts were made by me and the parents to exercise his deficient will. We would hold him by his arms, place different objects upon the floor and while talking with him we would step over them repeatedly. Likewise, we would help him in placing some objects over others, touch his clothing and ask him not to return the touch. We would insist upon his writing sentences without interruption and without tearing the paper after the writing was done, etc. This procedure required a great deal of patience and persistence, as at first he would resist considerably. Finally, our efforts were crowned with success, and the "*folie du doute*" with the "*déire du toucher*" and the obsessions disappeared entirely. The hallucinations and phobias lasted much longer, but they gradually left him also. An interesting observation to notice is the fact that the improvement of the psychosis coincided with the improvement in the general nutrition of the patient. The patient was practically

well until February, when, as a result of a fire in the neighborhood, he became frightened and the monophobia with the agoraphobia returned, even in a more pronounced form than at first. He has since become very much depressed; he is indifferent to his parents and sisters, to his work, to his clothes and to his appearance. Besides, from a very intelligent boy he has become rather dull mentally. His studies in mathematics and other branches do not meet with approval; his intellectual capacities in general are now distinctly below normal.

To sum up, we have here a case demonstrating clearly a defect in the stability of mental functions. A profound disturbance on his mental activity, bearing upon the elements, common to intelligence and will, produces in each mental operation symptoms of a similar order: hesitancy and doubt; the hesitancy of the will has for consequence abulia and difficulty in accomplishing acts by normal procedures. His attitude in general showed uncertainty. His vivacity and rapidity of actions, results of habit, disappeared. The timidity and continual want of determination presented the most striking features of the mental state in our patient.

There are other interesting points in this case. In the first place, through all his experience of doubts and obsessions his intelligence remained unaltered. In the next place he was perfectly conscious of his sufferings. It was a sort of a psychological paradox: persistence of doubts and obsessions on one hand, and realization of the absurdity of his doubts on the other. The want of harmony between the will and the inability to remedy the condition caused an overwhelming anxiety. The motor nervous impulse became diminished, the actions became spasmodic each time the patient made an effort to overcome the obsessions and encouraged himself to commence the act again and again. This patient presents a good example of association of various forms of neuropsychoses. We find here a distinct neuropathic family basis which gives these psychoses their *raison d'être*. This basis forms an integral part of the patient's existence, has and will always have a certain bearing upon his mental acts. It is to those psychoses exactly what dementia is to general paralysis of the insane. As to the psychoses, we have here phobias, *folie du doute*, or *Grübeln* of the Germans, or Dercum's insanity of indecision (which is a happier term, as it has a nearer relation to the act), *déire du toucher* and obsessions.

Falret, Legrand de Saule and Ritti consider *folie du doute* and *déire du toucher* as two different groups of one disease. Magnan, on the contrary, believes that they are independent, but may succeed each other and he calls them: "Psychic stigmata of mental degeneration." That the psychoses mentioned are stigmata of degeneration, it is too obvious to dwell upon. An attentive investigation will prove that they all have for basis a neuropathy. They are all obsessions, and while the *folie du doute* is their expression in the intellectual sphere, the *déire du toucher* is their motor expression.

Clinically degenerative stigmata may manifest themselves not only in the physical, but also in the psychic sphere. Individuals with physical signs present the inferior, those with psychic stigmata the superior degenerates (Morel). Magnan had described under the psychic degenerates patients that presented symptoms similar to those of our case. Our patient, therefore, is a superior degenerate.

In connection with the psychic stigmata of degeneration we wish to mention a symptom stated in our case which is quite a rare occurrence, viz. visual hallucinations. Hallucinations are usually considered as an accompanying symptom of delusions. But this is not always the case. In our patient they were not associated with delusions of persecution or an intoxication. The evolution of the symptoms does not authorize us to consider them in this relation. In our mind they not only developed under the same influence as the other symptoms, but they also present the same character. Like in the psychoses

the patient was perfectly conscious of the visions which were also of an obsessive character. The boy was constantly under the yoke of the false perceptions without being able to avoid them, but at the same time he did not believe in the reality of the visions. He was merely obsessed by them, but he was not delusional. It is therefore logical to classify the hallucinations in the same category as the obsessions themselves, i. e. among the psychic stigmata of degeneration.

Although cases of conscious hallucinations with obsessions are on record, nevertheless the majority of them are those of hearing, taste and smell. Exceptionally we find cases with visual hallucinations. Our case will therefore present a peculiarity from this standpoint. What we especially wish to emphasize is the interpretation of the hallucinations. We repeat, they are of the same order as the other forms of obsessions and they should be classified among psychic stigmata of degeneration.

The ensemble of the psychoses which our patient presents developed on a hereditary and neuropathic basis and coincided with the transition of childhood to puberty.

The manifestations that a degenerative factor is apt to produce varies according to whether it affects a fully developed individual or overtakes him at the epoch of life when his development is only commencing. When the hereditary neuropathic taint is reinforced by anemia, physical and mental overexertion, the morbid constitution of the nervous system will suffer still more with the coming puberty.

If the profound organic disturbances of puberty have their influence, if puberty opens the road for invasion of psychoses, we can readily see the prognostic importance, when we find ourselves in the presence of a child with psychopathic heredity, in whom puberty approaches.

A transition of obsessions to insanities is usually not observed in children. With Krafft-Ebing we explain the rarity of psychoses in children by an incompleteness of development of psychic life and absence of various exciting causes.

With the onset of puberty the exciting causes are certainly multiple, and insanities should be expected in degenerates. Recoveries are comparatively rare. The disturbed psychomotor phenomena persist, because they depend upon an original peculiar disposition of the nervous system. They may become attenuated to a certain extent, and, if they disappear, it is for a relatively short period. Under any physical or psychic influence they may return or be substituted by psychoses of a different nature.

Our patient presented periodic attacks of maniacal or melancholic outbreaks, which may have become permanent. At the onset of puberty these little patients are threatened with an affection of still graver character, as dementia præcox, which is probably the case with our patient.

I wish to acknowledge the kind assistance in taking the history of the case, given by Dr. John Wanamaker 3rd.

INFANTILE CEREBRAL PARALYSIS.

By E. J. HUHNER, M. D.,

of New Orleans, La.

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Cerebral paralyses are classified by Osler, Young and Moore as (1) hemiplegic, (2) diplegic, and (3) paraplegic. Tubby divides them into (1) infantile hemiplegia, and (2) spastic paralysis (paraplegia). Personally, the writer prefers Tubby's classification as being the simplest and easiest of comprehension. Of Osler's 150 cases, 120 were hemiplegic, 19 were diplegic and 11 were paraplegic. Hemiplegia is frequently congenital or begins during the first and third years of life. Diplegia usually results from an injury at birth. Paraplegia is generally congenital. These paralyses are the result, principally, of difficult or abnormal labor, asphyxia, premature delivery, microcephalus, postfebrile processes, infectious or otherwise, syphilis; cerebral trauma, pre- and post-natal; and thrombosis of the veins of the cerebral surface. Young, in the *Medical News*, July, 1889, says: "Of the congenital cases, fright and strong emotion during pregnancy and premature delivery, especially at the seventh month, deserve especial prominence." The lesions which occur in the hemiplegia and diplegia have been grouped under three heads, viz:

- 1. Embolism, thrombosis and hemorrhage.
- 2. Cerebral atrophy and sclerosis.
- 3. Porencephalus.

The morbid changes in paraplegia have not been worked out. In infantile hemiplegia the leg is less affected than the arm. The latter is slower to recover and seldom regains its more delicate movements. Slight atrophy is not uncommon and is most marked in the arms. Flaccidity of the paralyzed parts may obtain always, but rigidity comes on in the majority of the cases. Motion, active or passive, increases this rigidity, but sleep or anesthesia abolish it. Sensation is usually disturbed and the reflexes increased. Aphasia, often temporary, is present, according to Young, in about one-third of all the cases. Associated with these paralyses are mental defects, ranging from feeble-mindedness to idiocy. The following table shows the number of cases in which these defects occur:

	Total number of cases	Idiocy	Imbecility	Feeble-minded	Unclassified mental defects
Bradford & Lovett . . .	26				20
Gaudard	80	19		15	
Wallenberg	175		15		50
Osler	120				12
Penna. Institution for feeble-minded Children	23				23

Thus we see that of 324 cases, 154 (about 47.5 per cent.) were mentally defective. From one-fourth

to one-half of all cases are attacked by epilepsy manifesting itself, first, on the paralyzed side, but tending, subsequently, to become general. Trophic changes may prevent the growth of bone, shortening resulting. Diplegia is a spastic paralysis of the extremities. The arms are usually unaffected. Here we find the so-called "clasp-knife rigidity." There is no atrophy. Electrical reactions and sensation are normal, but the reflexes are exaggerated. The mind is usually affected. Paraplegia is characterized by the "clasp-knife rigidity." Firm, steady pressure corrects the contracture. The gait is uncertain and "cross-legged." The reflexes are exaggerated. The upper extremities are less affected than the lower. Mental deficiency is frequent, although it occurs in a smaller proportion of cases of spastic paraplegia than in the other varieties. Ketch based his prognosis and, to a certain extent, his treatment, on the mental condition. He agrees with McKenzie, inasmuch as he is opposed to tenotomy until "the contracture of the tendon had become more or less permanent, and the irritation **** had begun to lessen." Ridlon believes in early operation, because then the irritation is relieved. The indications for treatment are:

- 1. To maintain nutrition, by means of massage and electricity.
- 2. To correct deformity by surgical and mechanical measures. Circumcision may be necessary, but is usually ineffectual, or only of transient benefit. The greatest good is derived from tenotomy. Hemiplegia and paraplegia are much more benefited by this procedure than is diplegia. Not only is the deformity corrected, but the mental condition is improved. Some retention apparatus should be applied after operation. Mechanical measures alone are unsuccessful in view of the fact that braces are apt to cause pain on account of the great pressure necessary to overcome the contractions. Tubby in his "Treatise on Orthopedic Surgery" says "I have found it to be absolutely useless to divide the tendon of the rigid muscles in the upper extremity."

CASE 1.—D. White, male; aet. 7. Father and mother living and healthy. No history of syphilis or trauma. Had no convulsions or coma. The body is large and well nourished. There is paralysis of the left side (hemiplegia). The forearm is flexed to a right angle with the arm, and the hand drops at the wrist. There is one inch shortening of the left leg; the foot is held in a position of equinus. The muscles are rigid and slightly atrophied. The patient is idiotic. He is subject to attacks of true Jacksonian epilepsy commencing in the large toe of the left foot, then becoming general.

CASE 2.—E. S. White, female; aet. 6½. Father healthy, mother delicate. History justifies a suspicion of syphilis. The child is of fair size, but with delicate musculature. When 5 months old, she had a fever and convulsions, followed by loss of power in both lower extremities. Right leg ½ inch shorter than left. At present the right foot assumes a position of equinovarus. Slight atrophy exists. Patellar reflex on the right side diminished, on the left slightly increased. The muscles of the right leg are rigidly contracted; those of the left much less so. In March, 1900, she had an attack of chorea which was overcome by liq. *Kalii* arsenitis, gtts. V. t. i. d. Sensation is dull in the paralyzed parts. Convergent strabismus present. She is feeble-minded. The only treatment employed was massage and electricity.

CASE 3.—B. S. White, male; aet. 4: brother to subject of Case 2. Large and well developed. This child, like his sister, had never walked. No history of trauma. No balanitis, phi-

mosis or painful urination. Both lower extremities are slightly contracted. Mentally defective. Slow, measured speech, at times incoherent. Moderate hydrocephalus exists. Sensation normal. December, 1900, was able to stand when supported. There is another child in the same family who is perfectly sound, mentally and physically.

It will be seen that these cases, with the exception of case 1, were unfavorable for almost any treatment. Case 1 might have been improved by trephining, but the parents objected to any operation. Case 2 was so deficient mentally that operative procedure was inadvisable. Case 3 presented the same objectionable features, to say nothing of the hydrocephalus.

LA PRESSE MEDICALE.

April 5, 1902. (No. 28.)

1. Obstetrical Intervention in Dystocia. PAUL BAR.
2. The Care Necessary after Puerperal Hemorrhage. G. KEIM.
3. X-ray Burns. MAXIME MENARD.

1.—Bar believes that a parturient woman should be consulted by the obstetrician before any operation is undertaken; that her consent should be gained by judiciously telling her what is to be done and why it is necessary, not frightening her unnecessarily; that he should never operate when she refuses; that when she refuses one operation and prefers another, he should perform that unless not acceptable in his judgement; that her family need only be consulted when she is insane or intervention is urgent; and that, should the family object strenuously to operation, it should not be done. These conclusions are the result of an interesting discussion. [M. O.]

2.—When serious hemorrhage occurs after labor, the indications are to stop the hemorrhage and to prevent recurrence. The largely distended bloodvessels must be restored to normal. Repeated hemorrhage, such as occurs with placenta previa, is more dangerous than one severe hemorrhage. There are pallor, oligemia, lowered temperature, cyanosis, dyspnea, small rapid pulse and symptoms of cerebral anemia, delirium, etc. To prevent syncope the patient should lie upon her back, without a pillow, the foot of the bed elevated, bandages should be applied to the legs, friction to the skin, and oxygen or fresh air inspired. Finally salt solution may be given subcutaneously or intravenously. Even then collapse and death may follow. Should she regain consciousness, alcohol, caffeine and digitalis should be given. Later, rest, arsenic and strychnine will lead to recovery. [M. O.]

3.—To prevent burns in using the Röntgen rays, Ménard states that the tubes must be kept at a certain distance from the patient. He has measured this for the different parts of the human body. [M. O.]

The Treatment of Chorea.—Jules Comby discusses the treatment of chorea in *La Médecine Moderne* for July 2, 1902. Out of 240 patients observed in 8 years, in only 90 was the disease mild in character. He advises cold bathing or cool, moist applications every morning, a diet containing but little nitrogen, relative isolation and rest in bed. Of the 150 grave cases treated, antipyrine was used in 70, arsenous acid in 54 and other drugs in 26. Two deaths occurred from malignant endocarditis. He gives 7½ grains daily for each year of the child's age; thus 60 grains for a child of 8, 75 for a child of 10, and 90 for a child of 12. He begins by giving 15 grains twice daily and increases rapidly, continuing the antipyrine for from 9 to 15 days only. If there is no improvement by that time, he gives arsenous acid, in a 1-1000 solution, in gradually increasing doses for 10 days. In severe cases he gives the arsenic at once. [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending August 30, 1902:

SMALLPOX—United States.			C.	D.
COLORADO:	San Francisco.	Aug. 10-17.	8	
CALIFORNIA:	Denver.	Aug. 8-16.	1	
ILLINOIS:	Chicago.	Aug. 16-23.	4	
INDIANA:	Indianapolis.	Aug. 16-23.	3	
LOUISIANA:	Shreveport.	Aug. 16-23.	3	
MASSACHUSETTS:	Boston.	Aug. 16-23.	8	3
	Cambridge.	Aug. 16-23.	1	
	Lawrence.	Aug. 16-23.	2	
MISSOURI:	St. Joseph.	Aug. 16-23.	16	
	St. Louis.	Aug. 17-24.	1	
NEBRASKA:	Omaha.	Aug. 16-23.	4	
NEW HAMPSHIRE:	Manchester.	Aug. 16-23.	1	
NEW JERSEY:	Camden.	Aug. 16-23.	3	
	Jersey City.	Aug. 17-24.	1	
	Newark.	Aug. 16-23.	3	
	Passaic.	July 26-Aug. 23.	2	
NEW YORK:	Buffalo.	Aug. 16-18.	4	
	New York.	Aug. 18-25.	5	1
OHIO:	Cleveland.	Aug. 16-23.	50	8
PENNSYLVANIA:	Allegheny.	Aug. 16-23.	2	
	Altoona.	Aug. 16-23.	1	
	Erle.	Aug. 16-23.	6	
	Johnstown.	Aug. 16-23.	4	
	McKeesport.	Aug. 16-23.	3	
	Philadelphia.	Aug. 16-23.	3	
	Pittsburg.	Aug. 16-23.	9	1
SOUTH DAKOTA:	Sioux Falls.	Aug. 16-23.	1	
UTAH:	Salt Lake City.	Aug. 16-23.	1	
WISCONSIN:	Milwaukee.	Aug. 19-26.	1	

SMALLPOX—Foreign.			C.	D.
CANADA:	Quebec.	July 26-Aug. 16.	3	
GREAT BRITAIN:	Dublin.	Aug. 2-9.	1	
	Glasgow.	Aug. 8-15.	1	
	Leith.	Aug. 2-9.	1	
	London.	Aug. 2-9.	21	4
INDIA:	Bombay.	July 22-29.	8	
	Calcutta.	July 19-26.	1	
	Karachi.	July 20-27.	1	
RUSSIA:	Odessa.	Aug. 2-9.	4	

YELLOW FEVER.			C.	D.
BRAZIL:	Amazon Valley.	July 24, Raging.		
COLOMBIA:	Panama.	Aug. 11-18.	3	1
DUTCH GUIANA:	Paramaribo.	July 1-30.	1	1
MEXICO:	Coatzacoalcas.	Aug. 8-16.	9	2
	Vera Cruz.	Aug. 8-23.	39	17

PLAGUE.			C.	D.
EGYPT:	Alexandria.	Apr. 14-Aug. 6.	70	35
	Tukh, District.	May 2-Aug. 6.	39	21
INDIA:	Bombay.	July 22-29.	28	
	Calcutta.	July 19-26.	12	
	Karachi.	July 20-27.	20	15
RUSSIA:	Odessa.	July 26, Officially announced		

CHOLERA.			C.	D.
CHINA:	Niuschwang.	July 5-12.	98	31
	Tientsin.	Je. 30-July 14.	190	110
EGYPT:	General.	July 15-Aug. 6.	981	819
	Alexandria.	To Aug. 6.	5	4
	Assiout District, including Moucha:	July 5-Aug. 6.	459	372
	Cairo.	July 22-Aug. 6.	464	404
INDIA:	Bombay.	July 22-29.	4	
	Calcutta.	July 19-26.	34	
	Karachi.	July 20-27.	25	24
JAPAN:	Fukuoka Ken.	To July 28.	287	168
	Hiogo Ken.	July 29, Present.		
	Kanagawa Ken.	July 29.	1	
	Kumamoto.	July 29, Present.		
	Nagasaki.	July 29, Present.		
	Saga Ken.	July 29, Present.		
	Tokyo Fu.	July 29.	3	

Biliary Melanoderma With Splenomegaly.—Gandy and Gouraud recently reported a case of melanoderma of biliary origin, resembling Addison's disease, in a man of 28, accompanied by splenomegaly. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 10, 1902.) The conjunctivæ showed icterus, while the liver was evidently enlarged. An attack of hepatic colic had occurred 6 years before. In spite of existing phthisis, the condition is believed to be due to hepatosplenic infection and not to Addison's disease. The patient was present and examined. [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

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VOL. X. NO. 11

SEPTEMBER 13, 1902

\$5.00 PER ANNUM

Virchow.—It would be a vain effort adequately to characterize Virchow within the limits of an editorial eulogy. The man was so many-sided and so profound that his personality and his work elude the attempt to limit them within an impromptu description. It may be said at once that only one other man—Pasteur—has so shaped the course of modern pathology as has Virchow. To these two men, more than to all others, we are indebted for the fact that pathology, among all the medical branches, has come the nearest to holding a front rank with the other physical sciences. Of these men, Virchow perfected the stage and Pasteur introduced the actors. The one was an histologist, the other a bacteriologist. Both were masters, and the one was the complement of the other.

Virchow's name in medical science is inseparably associated with the cellular pathology. Professor Welch, in an appreciative address on the man, reminded us a few years ago that the cellular pathology is not a system of doctrines. It is a biological principle, and its foundations have been attacked, but have never been shaken. And yet, as is well known, Virchow did not originally demonstrate the cell. That scheme was Schwann's, and even in pathology Johannes Müller had already applied the microscope to the study of tumor-formation. The great discoverer—here as everywhere—was not the first man who saw, but the first man who comprehended. That man was Virchow.

But Virchow did not establish a school. He was too great a man for that. In his oration on Müller, Virchow said: "There is no school of Müller in the sense of dogmas, for he taught none; but only methods." This in turn is a description of Virchow himself, and we shall miss the true significance of the man, after all, if we do not seize firmly upon this truth in our estimate of him. Virchow continued the methods and was of the same type as John Hunter. In pathological anatomy these two represented the pure Baconian type of scientists. They spun no theories, they wove no webs, but they enriched science with a vast accumulation of

facts, which in their hands were made to assume new forms, and these forms we call *principles*. In the language of the Persian poet, "they broke up the tiresome old roof of heaven into new forms."

But it was not so much what he did as the man himself that conveys an adequate moral to us now that he is dead. By his methods we can gain knowledge, but from his personality we can gain wisdom. Virchow was not only a great scientist, but he was a great humanist. All things interested him that were human. In science he was profound; in philosophy, luminous; in languages and literature, erudite; in politics, liberal and indefatigable; in religion, reserved. These were the characteristics of a mind that was framed to be an exemplar and a leader among men. In his life the world enjoyed the constant fruition of a great intellect; in his death it inherits the lesson of high thinking and sane living. With the man himself medical science loses its most illustrious exponent of the nineteenth century.

Virchow in Politics.—It would take an admirable biographer, indeed, adequately to sum up the wonderful amount of work accomplished by the many-sided Virchow. No less remarkable than his achievements in many domains of science is the fact that he had the inclination and found the time to enter public life and to fulfil without an iota of neglect the exacting duties that were required of him. He was not discouraged by the failure of the liberal movement of 1848 and 1849, and stood ready at all times to serve his country in any capacity. He became a City Councillor of Berlin, in 1859, and served continuously for more than forty-two years. In 1862 he was elected to the Prussian Chamber as one of the Radical Party, and continued a member of that body to the day of his death. He was for twenty-five years Chairman of the Committee on Finance, and we are told that he, himself, laid the foundation of the present constitutional budget system of Prussia. As President of the German Fishing Association it was through his influence that the German laws in relation to fishing were enacted. From 1880 to 1893 he was a member of the Reichstag. He has been closely identified with

legislation on public health, and he is largely responsible for the Prussian vaccination laws, the laws for the inspection of food and those for the suppression of epidemics. Almost every hospital in Berlin and every museum is indebted to him for the enlargement of its facilities and fields of usefulness. The antagonism between Virchow and Bismarck was so great that Bismarck at one time challenged him to a duel, but their meeting was fortunately prevented by the intercession of friends. It was a glorious day for Virchow when in 1892 he was triumphantly reinstated as Rector of the University of Berlin, a position which he lost through his extreme radicalism in 1887. As a public speaker Virchow was logical and forcible, and his extemporaneous remarks differ but slightly in their finished sentences from his written work. Virchow's wonderful career may serve as a text for many an excellent sermon, and his biography should be placed in the hands of every student of medicine. He found time to distinguish himself in so many fields that it was often said of him that when he died it would be found that he was not one man but four men. The active part which he took in politics points clearly to his firm conviction that a citizen's full duty to the state lies not in holding aloof and permitting politicians to enact laws as they see fit, but that it is the duty of all men of education to take an active part in conceiving and enacting legislation in accordance with the most advanced ideas of science. In this way, to take one instance alone, may the health of the public be safeguarded, and if Virchow had done nothing else but render his Herculean services in behalf of preventive medicine by the vigorous part he took in securing the passage of these laws, he would have well deserved a crown of laurel. But he did more, and so much more, that we contemplate the mere recital of his achievements with astonishment, and proudly lay our small tribute of respect and admiration at the grave of Germany's Grand Old Man of Science.

Virchow as an Anthropologist.—The types of genius are various. There is one whose possessor has an amazing capacity to master a single field of endeavor, as Raphael in painting, Shakespeare in drama, Turenne in war, but who scarcely attains mediocrity if he attempts other fields. There is another in which success in the chosen field is merely the expression of an overmastering ability. Such is the career of a Cæsar, a Napoleon, a Michael Angelo, a Franklin. Such men have a faculty for attaining results that to smaller minds appears to be the expression of unremitting effort, although often they work only better, not more. Virchow was emphatically such a man. No matter what field he

entered, he rapidly conquered first position and then retained it. There is a story told of him, which might be true, that a small anthropological society in Berlin, of which he was a member, gradually dissolved because he accomplished so much more than all the other members that they were ashamed to attend. It is not unlikely that, if Virchow had not been a greater pathologist, he would have been a great ethnologist. His productions in this field, commencing in the sixties, are remarkable for those qualities that have characterized all his work—breadth and detail. Naturally his interest in natural science led him rather toward anatomical than toward philological and sociological researches; indeed, he freely expressed the opinion that deductions regarding racial relations, based upon linguistic similarities or differences, or upon the existence of similar religious rites or other social customs, were too often fallacious to be worthy of much attention. He preferred the morphology of crania and, always a favorite subject with him, the character of the hair. He was particularly interested in the different races of the Pacific islands, and as a result was able to seize the psychological moment some four years ago and to publish a long article upon the inhabitants of the Philippine Islands, in which, in addition to the negroes and the lighter type—for he did not recognize the diversity of Malay races described by other workers,—he calls attention to some interesting relics of prehistoric inhabitants. Virchow's interest in anthropology, or rather ethnology—for he worked chiefly in the narrower field—is more remarkable because he was not a traveler in the scientific sense of the term. Perhaps his work was in some respects more valuable because he was not governed, as the traveler is apt to be, by impressions more or less fallacious, gathered on the spot; but its greatest value must always be the intellectual intuition that he brought to bear upon it.

Virchow's Wide Culture.—Virchow surely could have had no sympathy with those medical educators who decry the need of a broad and liberal education for the physician. As a linguist his attainments were quite phenomenal, and his appreciation of literature for its own sake was never lacking. His devotion to archeology led him to study in person the relics of the ancient Greek and Egyptian civilizations. He was the friend and supporter of Schliemann, and took a personal interest in the discoveries at Troy. With Schliemann he traveled in Egypt and the Peloponnesus and took part in the excavations at Hissarlik. This devotion to the restoration of the records of a past age, in the very cradle of modern civilization, could not have been shown by one who

was blind to the inestimable advantages that come from a study of the philosophy, literature and history of the great peoples of antiquity.

It is too much to expect of most men that they should have the versatility of a Virchow; but his eminent example should at least indicate that modern science is not built entirely upon a recent foundation, and that he who is truly educated is one who at least has some glimpse into that great past whence has come so much of the inspiration of some of the greatest of modern minds. The history of the human race is a solidarity. A true education is an introduction to the knowledge of that great truth. Virchow knew this.

Recent Studies on the Plague.—Dr. W. Havelburg, of the Marine-Hospital Service, writing to his Government from Berlin, has presented a review of the valuable work of Professor Kolle and his colleagues on the plague bacillus and plague serum. The subject is one upon which considerable work has been done, and the profession is greatly interested in the results of these researches from a purely scientific, as well as from a therapeutic standpoint. Our new possessions have increased the intercommunication with the East, and the consequent presence of plague on our western coast has brought the subject home to American physicians. It has been determined that modifications of virulence in cultures of plague bacilli may be definitely detected in guinea-pigs and not in other animals. The peculiarity of the method of inoculation is important. It is necessary to shave a small area of the abdominal wall and to rub into this spot a definite quantity of culture. Without the passage of cultures through rats the virulence is soon greatly lowered. Kolle and Martini have verified the statement of Batzaroff that the most virulent plague germs were to be obtained from the pneumonic lungs of rats which have been infected by plugging the nasal cavities with infected cotton wool. It has been observed, however, that the infection by this means is not constant. The epidemiologist must be on his guard, since a chronic form of plague exists in rats, and must govern his deductions after inoculation experiments accordingly. The importance of the method of cutaneous infection of guinea-pigs lies chiefly in the direction of its diagnostic value. It is said that by this means plague bacilli may be demonstrated from suspected material, such as the blood in chronic cases in which but few germs are present and the virulence of which might be too low to infect rats. The shaved skin acts as an agar plate, not only multiplying the germ in the body of the guinea-pig, but producing a pure culture of plague bacilli. The experiments of Kolle upon the

value of plague serum show that upon animals its action is extremely slight when virulent cultures are employed, but curative effects were at times shown when cultures of low virulence were used. These results are in accord with those obtained in human beings with Yersin's and the newer Pasteur serum. In mild cases some favorable results have been secured, but in severe infections no serum has as yet prevented a fatal outcome. The dried serum of the Pasteur Institute has proven absolutely specific in causing the reaction of agglutination, and it is consequently a most valuable means for differentiating the plague bacillus from its allies, even when the plague bacilli have lost their virulence and are no longer capable of affecting the animals inoculated. Havelburg states that a single successful agglutination experiment with a control allows one to arrive at once at an opinion, but that only a small number of plague patients and convalescents exhibit this reaction of agglutination.

Unwashed Fruit as a Means of Infection.—The recent increase in the number of cases of typhoid fever in Philadelphia has led to some speculation as to the method of infection. One authority is quoted as saying that the water is not responsible, as bacteriological tests fail to demonstrate the bacillus. Attention is called to the fact that the increase is coincident (as in every year) with the greatest consumption of fruit, and the theory is offered that unwashed fruit may be the medium of infection. The same explanation has recently been offered by the health authorities of Chicago, in which city there is a wide prevalence of typhoid fever.

We think this subject should not be left as a mere speculative one. A thorough bacteriological examination could readily be made of specimens of unwashed fruit as sold in the markets and on the streets. Why is this not done right here in Philadelphia? Such an investigation was made this summer by the ever alert health authorities of Havana, and with positive results. The Chinese truck farmers in and around that city have certain objectionable methods. An epidemic of diarrheal diseases appeared and led to an investigation. In the washings from vegetables and fruits a very virulent colon bacillus was isolated and was found to be able to kill guinea-pigs in 48 hours.

This investigation in Havana should serve as an example to our city bacteriologists. Certainly the custom of eating unwashed fruit is a very reprehensible one. Such fruit is constantly exposed to the dust of the streets and to other possible sources of infection. Let us have the question reduced to a scientific certainty.

Plague and Politics.—We have learned with satisfaction that Governor Gage, of California, has failed of a renomination by his party. Governor Gage has made himself particularly obnoxious to the medical profession of the entire country by his stand on the subject of plague in San Francisco. He has either led, or been led by, the reactionary element in the State who have sought to conceal the facts and to throw discredit upon the scientists who investigated the plague in that city. It is needless now to go over the ground again, and we do not even know whether Governor Gage's defeat was in any way attributable to his record on the plague; but we can at least hope that his successor in office will be more enlightened and conscientious. Cases of plague continue to be reported in San Francisco, and it is time that the subject ceased to be a political issue.

Musolino the Bandit.—The recent exploits of Tracy, the Western bandit, who killed many persons before he was overcome, has a singular parallel in the case of an Italian brigand who has just been tried and convicted at Lucca. The two cases show that such outlaws are not peculiar to any one race or country.

Musolino, according to the *Outlook*, was a Calabrian peasant and was apprehended for shooting from ambush at an enemy. He broke jail, vowing vengeance on all who had testified against him. This vow he proceeded to fulfil, and killed in turn seven persons and attempted to kill six others. He secreted himself in the mountains of Calabria, where he was befriended by the peasants, who made a hero of him, and where he was hunted, for a long time unsuccessfully, by the Italian government. His recent conviction does not mean a hanging, for capital punishment unfortunately is abolished in Italy; and so Musolino will have another chance to break jail and to kill more of his enemies, as he vows to do.

Lombroso, of course, could not let such a choice case escape him, and has analyzed Musolino. He finds that the bandit is sprung from a degenerate race of Greeks and Albanians inhabiting one of the southern provinces of Italy. Musolino's uncle and three cousins are criminals; his grandfather and mother's brother are apoplectic; another cousin is epileptic, and his other grandfather is a drunkard. Two of his sisters are epileptic.

Musolino has religious exaltation. He believes that St. Joseph appeared to him and that the Savior commanded him to avenge himself on his enemies. This combination of criminality and religious exaltation is not uncommon, especially among Italian

peasants. They commit murder and say their prayers with equal readiness and gusto.

An interesting medico-legal feature of the trial of Musolino was that he had ten lawyers, who quarrelled among themselves and required to be disciplined by the court. Of course, the bandit has the "stigmata" of degeneracy. He smiles on one side of his face, and hitches up one shoulder higher than the other.

Judge Holmes on the Criminal Law.—Physicians, as a rule, have not much to do with the criminal law. This is gratifying and is a matter of course. Still, there are some physicians whose specialty often leads them into court and whose fondness for medico-legal science leads them not infrequently to contemplate the workings of the criminal law. The subject, therefore, has its anthropological and scientific aspects.

To all such physicians the opinion of Judge Oliver Wendell Holmes, who has just been appointed to the United States Supreme Court, will be refreshing. Judge Holmes is quoted as having told the graduates of the Harvard Law School on one distinguished occasion that "none of them could deny that half the criminal law does more harm than good." This opinion will coincide with that of some physicians who have made a scientific study of criminality. The criminal law is partly derived from a barbarous age when science was unknown. Judge Holmes is not only an eminent lawyer, but he is reputed to be interested in the science of anthropology. He is likewise the son and namesake of a celebrated physician—Dr. Oliver Wendell Holmes, the poet and essayist.

Current Comment.

OBJECTIONABLE ADVERTISEMENTS IN RELIGIOUS PUBLICATIONS.

It is, unfortunately, only too true that parsons and retired military men often prove the warmest supporters of "quackery." Doubtless more or less adequate explanation of the fact might be presented, but to afford such is not at present our purpose. We wish merely to direct attention to the widespread prevalence of objectionable advertisements in so-called religious publications. Papers which should have been guided by the highest ethical considerations have permitted their advertising columns to become the means for unscrupulous persons to practise the most cruel frauds upon the poor and ignorant, many of whom innocently imagine that whatever appears in a religious paper must be honest and altogether trustworthy. The editors of many of these "religious" journals cannot claim release of responsibility on the grounds of ignorance. We know that in several instances some of the honored members of our profession have seriously sought to abate this scandal, but hitherto, we fear, with but little success. It seems incomprehensible that "religious" papers should for the sake of financial gain stoop to accept such advertise-

ments as a high-class "lay" newspaper would rigorously exclude. Unless those responsible for the conduct of these "religious" papers can speedily make up their minds to clear their columns of such filthy and dishonorable advertisements as now find place in them, we venture to think it will become a public duty to expose them to the "wicked world" as well as to "the religious public."

—*The Medical Press and Circular.*

Correspondence.

A DOCTOR ON THE COAL STRIKE.

By W. A. NEWMAN DORLAND, M. D.
Ass't. Surgeon to the Second City Troop,
of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

Situated as we are up here on the crest of Indian Ridge, 1200 feet above the level of the sea, our location is an ideal one for a camp, not only from the esthetic, but from the hygienic point of view as well. The breezes, which sweep down from the north where the North Mahonoy Mountain lifts its head far above our level, are chill and bracing and at night necessitate the use of our capes and blankets. As I sit here before my tent with our camp street stretching away to the left, the laurel bushes in front of me barely suffice to hide from my view the tents of our neighbors, the men of the Eighth Regiment. Many of these soldiers are enlisted from this portion of the state, and I understand two complete companies come from the mining districts of the immediate vicinity. The men, though miners themselves, hold their vows to the state as obligatory and binding, and their captains claim that, when called to actual service, they are as zealous as those who are less interested in strike affairs. The little plateau upon which we lie is surrounded by a race-course which encircles the troop camp and affords an excellent site for the mounted troop drills. At the foot of our street beyond a deep ravine, which is our only means of approach to the city of Shenandoah, looms up an immense culm bank. These banks constitute one of the striking features of this region. Consuming many decades in the process of their formation, they have come to assume the proportion of veritable mountains. In many instances they rival the hills themselves in grandure of conformation. When the night has come, mysterious signal lights may be seen flashing irregularly from their summits—unintelligible communications, at least to us. It is the method adopted by the miners of keeping themselves aware of our movements. The culm bank opposite our street has taken over thirty years in building. In common with the others it is now being reworked for the finer grades of coal—rice and buckwheat—with which it is loaded. There is a strange conglomeration here. The Roman and Greek Catholics claim most of the foreign element, including the Poles and Lithuanians, who constitute the main portion of the striking miners and the most obdurate. The Protestant churches are not so numerous nor architecturally so aggressive, for though the population of Shenandoah numbers 27,000, the vast majority is foreign. Their grim and immobile features confront us wherever we turn, and muttered curses and imprecations follow the movements of our men. "Scabs" and "doughboys" they called us until the order issued from General Gobin's headquarters, making such supposed insults punishable by military law. They speak in frowns only now. It is remarkable how healthy the men are. With the exception of our troop, the men have been here for over a month. Thirty-six days have the troops been on duty in this section, and not a man has been lost either by sickness or any other cause. This is all the more noteworthy when it is remembered that there are here about 1500 officers and privates. Not a case of typhoid or any other serious illness has developed among the sol-

diers. In no previous similar affair has there been as little work for the surgeons as in this encampment of the provisional brigade. This unprecedentedly fine showing is attributed by the officers to the excellent physical condition of the men, the unusually cool weather this summer, the excellent sanitary condition of the camp, and the good quality of the food furnished. On previous occasions, the older officers say, there have been deaths and cases of serious illness, as was the case at camp here in 1900. The mounts have fared equally well. Not a horse has been lost by the cavalymen or officers of the regiments and staff.

Reviews.

Mother and Child. By Edward P. Davis, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College; Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic; Visiting Obstetrician to the Jefferson, Philadelphia and Polyclinic Hospitals, etc. Philadelphia, J. B. Lippincott Co., 1902.

This volume appears as a second edition of the one published some years ago by Dr. John M. Keating and Dr. Edward P. Davis, though it has been remodeled by Dr. Davis since the death of Dr. Keating. It is designed to help the family physician in the care of his patients, by placing at their disposal information which physicians commonly give to their patients. It explains in detail, plainly and scientifically yet not too technically, pregnancy, confinement, the puerperium and how to treat the infant and growing child. It is pleasing to note the warning that women drinking large quantities of tea, in spite of its reputation for stimulating the flow of milk, are usually in poor physical condition and their children are not well nourished. Milk, cocoa and water are advised. The importance of a mother's wholly or partially nursing her child is also well impressed upon the reader. When artificial feeding becomes necessary, the importance of obtaining clean milk and its superiority, when compared to that which has been sterilized, are also noted. That young children should never be given tea or coffee, is a most important observation which should impress the mother.

The cradle, crib, clothing, fresh air, exercise, dentition, etc., the feeding in health and disease, and medical emergencies, all receive attention. It can, in truth, be said that this little volume has been prepared for young married women to read. In it they will find answers to all the questions which they are sure to ponder over in the future. These answers are full and comprehensive, yet easily understood. Physicians should recommend the book to patients, since it refers the patient to a physician early, as soon as any abnormality is observed. [M. O.]

Ueber die Bedeutung der Funktionellen Nervenkrankheiten für die Diagnostik und Therapie in der Gynäkologie. By Dr. B. Krönig, Leipzig, 1902. Verlag von Georg Thieme.

Professor Krönig has had the advantage of a large clinical experience in Leipzig, and from the richness of his material he has drawn some very practical conclusions in reference to the functional diseases of women. He considers these from various standpoints, especially from a diagnostic point of view. He touches upon the practical questions of diseases of the ovaries in their relation to nerve-affections, the nervous disorders subsequent to castration, those resulting from anomalies of position of the uterus, those following endometritis and cervical erosions, the genital reflex neuroses, and those accompanying menstruation and its disorders. He calls attention to the nervous conditions associated with amenorrhea and dysmenorrhea and metrorrhagia and menorrhagia, and speaks of the uselessness of gynecological operations for the cure of diseases of the nervous system in a great majority of cases. A comprehensive bibliography completes this valuable contribution to gynecology. [W. A. N. D.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Typhoid Fever in Philadelphia.—Since August 1, when the present outbreak of typhoid fever was first noted, there have been 444 cases with 57 deaths. During the week ending September 6, 120 new cases were reported, with 8 deaths, as compared with 92 cases and 10 deaths the previous week. There were but 2 cases of smallpox reported. The majority of the cases occurred in West Philadelphia, while but 2 cases were reported from Manayunk, which is now receiving filtered water from the recently finished filter beds in lower Roxborough. There was but one case reported in Germantown. Dr. T. J. Beatty, assistant medical inspector, has found that 34 of the cases of typhoid fever now under treatment in the city were contracted outside of the city. Fifteen of these cases developed in Atlantic City and were later removed to Philadelphia.

Lancaster General Hospital.—The first stone of the new Lancaster General Hospital was laid September 2. The building will have a frontage of 200 feet, will be 3 stories high and will cost \$50,000.

Woman's Medical College of Pennsylvania.—Dr. Hannah T. Croasdale, for 30 years professor of gynecology, has resigned. She will be succeeded by Dr. Ella B. Everitt, for the past 6 years chief resident and operating physician at the Woman's Hospital. Dr. Alice Seabrooke, formerly resident physician in the Methodist Episcopal Hospital, succeeds Dr. Everitt as chief resident physician and superintendent of nurses.

Typhoid Fever in York.—An epidemic of typhoid fever appeared in York toward the end of July. The health report for the month of August shows 25 cases of typhoid fever, with 2 deaths within the city limits.

WESTERN STATES.

Mississippi Valley Medical Association.—The twenty-eighth annual meeting will be held in Kansas City, Mo., Oct. 15-17, 1902. The oration on medicine will be delivered by Dr. H. T. Patrick, Chicago; that on surgery by Dr. G. W. Crile, Cleveland. The president of the association is Dr. S. P. Collings, Hot Springs, Ark.; the vice-presidents are Dr. J. C. Culbertson, Cincinnati, and Dr. Paul Paquin, St. Louis; the treasurer is Dr. T. H. Stucky, Louisville, and the secretary Dr. H. E. Tuley, Louisville, Ky.

Typhoid Fever.—Oddly enough, the great majority, 73 of the 129 deaths from typhoid fever reported during August in Chicago, were found in that part of the city having the best water-supply and containing less than one-fifth of the total population of the city. Notwithstanding all investigations, there were 8 more deaths from typhoid fever during the week ending August 23 than during the previous week. Malaria is also prevalent in Chicago, while there have been 4 cases of smallpox isolated since August 1. Milwaukee also has a large number of cases of typhoid fever, as has Detroit, Cleveland and Duluth. St. Paul, on the contrary, is singularly free from the disease.

Mercy Hospital, Dubuque, Iowa.—The new hospital will be much larger than the old building and will contain a chapel, new wards, a new operating room and 50 private rooms. When completed, it will be one of the finest hospitals in the country. The old building will be remodeled as a hospital and home for the sisters.

Ripon College Hospital.—It is expected that a hospital ward will be built on the third floor of the dormitory building of Ripon College, Mo., for use by sick students. The expenses will be borne by the college.

Smallpox in Milwaukee.—There are but 7 cases of smallpox left in the city of Milwaukee. In January last there were 1521 cases, but 10 of which ended fatally.

Investigation of the Filaria.—Dr. V. L. Kellogg, of Stanford University, Cal., recently returned from a summer trip to Samoa. While there, he made thorough investigations of the filaria, which has produced elephantiasis in almost half of the native population. Dr. Kellogg has devised plans for limiting the occurrence of the disease by preventing the use of infected water among the natives.

Appointments.—Dr. George Howard Hoxie has recently been appointed professor of anatomy in the Medical School of Kansas University.—Dr. J. U. Barnhill, of Columbus,

Ohio, has recently been elected professor of surgery and clinical surgery in the Ohio Medical University.

Bequests.—By the will of the late Mrs. Katherine B. Aultman, who died at Canton, Ohio, August 26, aged 74 years, the sum of \$100,000 was left for establishing a home for aged women in Canton; a similar amount was given to the endowment fund of the Aultman Hospital, founded in 1888 by Mrs. Aultman and Mrs. Harter; and over \$100,000 was left to various colleges, churches and libraries.

Medical Society of the Missouri Valley.—The annual meeting will be held at Sioux City, Iowa, September 18, under the presidency of Dr. R. C. Moore, of Omaha. The secretary of the society is Dr. C. W. Fassett, of St. Joseph, Mo.

Plague in San Francisco.—Four cases of bubonic plague have occurred in San Francisco during the month of August, 1902, all in Chinamen and all fatal. One was reported August 7, one August 17 and 2 August 19.

SOUTHERN STATES.

The Bacillus of Summer Diarrhea.—It has been announced by Dr. W. H. Welch, of Johns Hopkins University, that the bacillus of the summer diarrhea of infants has recently been discovered, at the laboratory of the Thomas Wilson Sanatorium for Children, near Baltimore, by 2 students who are to become physicians next June. They are C. W. Duval, of Annapolis, a student in the University of Pennsylvania Medical School, and B. H. Bassett, of Aledo, Ill., a student in Johns Hopkins Medical School. While the latter discovered the micro-organism, the former successfully isolated it. Their investigations have been verified by Dr. Welch and Dr. James H. M. Knox. It is to be hoped that an anti-summer diarrhea serum may soon be prepared, which will reduce the mortality from summer diarrhea in infants. These investigations were pursued under the auspices of the Rockefeller Institute for Medical Research.

Rappahannock Valley Medical Association.—This society met in Fredericksburg, Va., September 11. Among the papers read were one on Diseases of the Eye, by Dr. J. M. Barney, and another on Phases of Chronic Nephritis, by Dr. M. D. Hodge, Jr.

The New Surgeon-General.—Brigadier-General Robert M. O'Reilly succeeded Brigadier-General William H. Forwood as Surgeon-General of the Army, September 8, when Dr. Forwood was retired, on reaching the age limit. As we announced in our issue of July 26, Surgeon-General O'Reilly, who was born in 1845, was graduated from the University of Pennsylvania Medical School in 1863. He only became colonel in 1900. His appointment as surgeon-general advances him over 5 senior officers. He will not reach the age of retirement until 1909.

American Association of Obstetricians and Gynecologists.—The next annual meeting will be held in Washington, D. C., September 16-18, under the presidency of Dr. Edwin Ricketts, of Cincinnati. The secretary of the association is Dr. W. W. Potter, of Buffalo.

Typhoid Fever.—During the first week of September, 376 cases of typhoid fever were reported throughout the district of Columbia, 164 of them being under treatment in Washington hospitals. It is believed that more cases have occurred during July and August of this year than have existed in any one year since 1900, when 61 deaths occurred. This year there were 60 deaths in the District of Columbia for July and August. Thirty-eight deaths from typhoid fever occurred during August in Baltimore, as compared with 21 during the previous August.

MISCELLANY.

Cholera in Egypt.—The theory that the rising of the Nile means the disappearance of cholera in Egypt has not proved correct this year. Under date of August 2, Consul-General Long, of Cairo, states that the death-rate from cholera has been slightly reduced, now being about 89%. The Nile is rising rapidly and is expected to reach its flood at the 15th. inst., when it is hoped that cholera will altogether disappear. Under date of August 25, however, Vice Consul-General Smith stated that 1874 new cases had appeared since August 17, in all Egypt, with 1476 deaths. Since the beginning of the outbreak there have been 3090 cases, with 2085 deaths, 2294 cases recovered. The provinces of Minieh, Assiout and Ghizeh have been most seriously affected. In

Cairo, August 24, there were 8 cases, 25 deaths and 39 cases under treatment.

Smallpox in the United States.—Reports from Washington, September 7, state that there is more smallpox in the State of Washington than anywhere else in the United States. Between June 28 and September 5, 1238 cases have been reported with but one death, while only 38 cases occurred during the same period last year. Ohio comes next with 1104 cases and 82 deaths, as compared with 3417 cases and 42 deaths last year. Alaska has had but one smallpox case, reported from a mining camp near Juneau. Alabama, Georgia, South Dakota, Texas and Vermont are equally free from the disease, there having been but one case in each of these states during this period. South Carolina has had 2. New York has had 167 cases, as against 496 last year. Of these cases 142 occurred in New York City, the rest coming from Auburn, Buffalo, Elmira and Niagara Falls. Pennsylvania has had 297 cases, as compared with 1077 last year; of these 121 were in Pittsburg and 65 in Philadelphia. North Carolina had 326 cases this year and 318 last year.

Smallpox at Barbados.—The steamer *La Plata*, which reached Kingston, Jamaica, September 7, brought the news that a riot had occurred at Bridgetown, Barbados, August 25, 500 people refusing to permit the authorities to remove a smallpox patient for isolation. The police were attacked and stoned, the riot act was read and the police charged. Many persons were arrested. On this account the British cruiser *Retribution* left Kingstown, St. Vincent, for Bridgetown, Barbados.

The Health of Cuba.—A letter from Major Gorgas, formerly of the American medical corps in Cuba, states that no case of yellow fever has occurred in Havana in 11 months, and that the general sanitation of Cuba is excellent, the Cuban authorities having maintained the high standard established under the military government.

Cholera in the Philippines.—During the week ending August 30, 330 cases of cholera were reported in the provinces, making a total of 27,929 cases, with 19,640 deaths since the outbreak. Assistant Surgeon Stansfield, on duty at Cebu, reports that the cholera was brought into Cebu by a man who insisted on bringing the body of a cholera victim from Leyte and burying it in Cebu, although a burial permit was refused. The authorities at Catmon, however, permitted the burial there. Several cases of death from cholera followed this at once, and it is most probable that the entire island and some of the neighboring islands were infected through this case. The health board of Manila has formed a comprehensive plan for reclaiming the city from the unsanitary conditions which prevail. The experience in controlling the epidemic of cholera during the past few months has shown that only the most rigorous measures will be able to protect Manila from pestilence, whenever occasion arises. Every building which is unsanitary must be removed, low places will be filled in, suitable sewerage will be insisted upon, walls are to be built to hold back tidewater and new buildings will be permitted only with strict regulations as to plumbing and construction. When the buildings are torn down, over 40,000 people will have to be moved into temporary camps. The city engineer states that it will be necessary to fill in over the whole site of the city, in order to secure the grades making it possible to grade the streets and houses safely. The cost will be large, since the reclamation of San Nicolas Beach alone will cost \$500,000.

Obituary.—Dr. Edward B. Van Dyck, at Sunset Point, Rocky Hill, N. J., August 31, aged 67 years.—Dr. J. Francis Hamilton, at Philadelphia, Pa., September 1, aged 32 years.—Dr. William J. Wentz, at New Providence, Pa., September 5, aged 64 years.—Dr. Mortimer V. Wilkie, at Cuddebackville, N. Y., August 31, aged 45 years.—Dr. G. T. Scarborough, at Richmond, Va., September 3, aged 66 years.—Dr. Reuben Morris Sutphen, at Short Hills, N. J., September 4, aged 83 years.—Dr. Claudius Buchanan Webster, at Concord, N. H., September 8, aged 87 years.—Dr. W. S. Waterous, at Syracuse, N. Y., September 5.—Dr. William Oscar Xander, at Philadelphia, Pa., September 5, aged 35 years.

GREAT BRITAIN, ETC.

Inoculation Against Typhoid Fever.—Professor A. E. Wright, of the Army Medical School, at Netley, has recently published the results of 5 years' investigation upon in-

oculation for typhoid fever in South Africa, India and Great Britain. A marked advantage was achieved by inoculation. Fewer cases occurred among those inoculated and fewer deaths among the inoculated who were attacked by the disease. As a result of the diminished mortality, super-added to the diminution of incidence of the fever, the mortality from typhoid shows fourfold reduction. He adduces statistics of the garrison at Ladysmith to prove his claim. The garrison numbered 12,234, of which 1,705 were inoculated and exposed to infection from typhoid. In the period from November 2, 1899, until February 2, 1900, there were 1,489 cases of typhoid among those who had not been inoculated, and only 35 among those who had been inoculated, instead of about 250, which would have been their due proportion. There were 8 deaths among those who had been inoculated to 329 among those who had not been inoculated. The death-rates of the two groups were respectively .047 and 3.12. Surgeon-General W. D. Wilson, chief of the Medical Corps in South Africa, is not so sanguine as to the effects of inoculation. He says that enteric fever could not be prevented with an army marching all day in the burning sun, and when the men, suffering from the great heat, could not be driven away from water which was slimy and muddy.

The King's Hospital Fund.—Lord Strathcona and Mount Royal, Canadian High Commissioner in London, and Lord Mount Stephen, president of the Bank of Montreal, have recently given property, estimated at about \$2,500,000, to King Edward's Hospital Fund. It is expected that the income from this will furnish \$80,000 a year for the Hospital Fund.

English Losses in the Boer War.—The final casualty figures for the Boer War, from August 1, 1899, to May 31, 1902, show 5774 killed, 23,029 wounded and 16,168 deaths from wounds or disease. In all, 386,081 men were sent from England, while 52,414 were raised in South Africa.

A Death From Glanders in London.—A man who drove a coal wagon lost his horse from what was called gangrene of the lung. Soon afterward the man died from glanders. In the light of the man's death there can be little doubt that the horse died of glanders, although witnesses at the inquest were confident that there had been no such disease in the stables. Had pathological examination been made to determine the cause of death in the horse, it would probably have been found that the 2 pathological conditions were identical. It is to be hoped that systematic examination of all stables where horses have died from septic disease will be made compulsory in London. If this were done, such diseases as glanders in human beings could readily be prevented.

CONTINENTAL EUROPE.

Fourteenth International Medical Congress.—The executive committee report great reductions in fare for members of this Congress upon Spanish and French railways and the Spanish and Italian steamship lines. The committee also procured a large number of desirable rooms for physicians during the Congress in Madrid. It is announced that the congress will be held in 16 separate sections.

An Epidemic of Ringworm.—Dr. Gunsett, of Strassburg, recently reported a small epidemic of ringworm, due to the microsporon Audouini. While this micro-organism is commonly found in ringworm in England and France, it is unusual in Germany and Italy and is very rare in Eastern Europe. Until 2 years ago it was unknown in Strassburg, and during these 2 years but 4 cases have been reported. The recent epidemic included 7 typical cases, in boys between 7 and 9 years, in all of whom the scalp alone was affected.

Dr. Lukjanoff Honored.—Professor Lukjanoff, a pupil of Ludwig, professor of pathology at the University of Warsaw, and Director of the Institute of Experimental Medicine in St. Petersburg, has recently been appointed Deputy Minister of Public Instruction by the Russian Government.

Obituary.—Dr. von Tappeiner, the well-known specialist in diseases of the lungs, died August 20, in Meran, Austria, aged 86 years.—The death of Dr. Paul Plosz, professor of medical chemistry in Budapest, occurred recently, at the age of 57 years.—Dr. Adolf von Remmert, surgeon-general of the Russian Army, also died recently.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

August 30, 1902.

1. The Advantages and Disadvantages of the Profession of Medicine.
2. The Portals and Prospects of The Profession.
3. The Medical Curriculum.

LANCET.

August 23, 1902.

1. A Clinical Lecture on Three Cases of Banti's Disease. JAMES BARR.
2. An Address on Heart Disease in Children. A. E. SANSOM.
3. Clinical Remarks on the Causes which prevent the Restoration of Normal Valve Function in Rheumatic Endocarditis. RICHARD CATON.
4. 70 Cases of Inguinal Hernia Treated by the Kocher-Bassini Method, with Remarks upon the Technique of the Operation. J. LYNN THOMAS.
5. On Some Cases of Operation for Chronic Nonmalignant Disease of the Stomach. ARTHUR E. BARKER.
6. 30 Cases of Gastro-enterostomy for Nonmalignant Affections of the Stomach. T. KENNEDY DALZIEL.
7. A Case of Postoperative Hematemesis. ARTHUR H. BUCK.
8. Methods of Uniting Divided Intestine, with Special Reference to a New Bone Bobbin for the Purpose. E. STANMORE BISHOP.

1.—Barr reports 3 cases of Banti's disease. The first case was that of a man, 48 years of age, who was admitted into the Liverpool Royal Infirmary on August 12, 1901. The patient, 4 years previous to admission, injured his abdomen and after this time he noticed swelling. In June, 1901, the patient stated that he strained himself while lifting heavy weights and after this time the abdominal swelling became more marked. On several occasions he had epistaxis and hematemesis. On admission the patient had a somewhat icteric appearance. The abdomen was very large, the spleen enormously enlarged, filling the greater part of the left half of the abdomen. The liver was large, firm and had an irregular surface. The ascitic fluid was drawn off on 2 occasions. Mitral and tricuspid systolic murmurs were audible and the liver pulsated. Salol and digitalis were administered; the patient was kept on a dry diet. With this plan of treatment the spleen diminished much in size, the patient's general state greatly improved and he was dismissed in a fair condition on October 16, 1901. He was readmitted on March 4, 1902. The patient was very weak and his condition closely resembled the above description. At this time a blood examination showed hemoglobin 40%; 2,400,000 red cells and 5,000 white corpuscles per cmm. The spleen was enormously enlarged. On April 11 the differential count of white cells gave the following result: Large hyaline 44%; lymphocytes 20%; finely granular oxyphiles, 35% and eosinophiles 1%. The patient improved under treatment. Case 2. This patient, 42 years of age, a male, 5 years previous to admission had several attacks of hematemesis. He had an icteric swollen appearance, a large abdomen, but no ascites. His liver was large and the spleen was also greatly increased in size. A tricuspid systolic murmur was audible and the bloodcount showed hemoglobin 30% and red corpuscles 5,000,000 per cmm.; the white cells were not counted, but there was about an equal number of mononuclear and multinuclear cells. The urine contained a trace of albumin. A later examination of the blood, after the patient had improved considerably, showed hemoglobin 66%; erythrocytes 6,000,000, leukocytes 12,000 per cmm. A still later examination revealed erythrocytes 7,000,000, leukocytes 13,000 per cmm. and hemoglobin 77%. The third case was that of a man,

33 years of age, who was admitted on June 14, 1901. The spleen was enormously enlarged and the liver rather large and smooth. He gave a history of an injury to the abdomen 5 years before admission. He had a slight icteric tinge of the conjunctivæ and was anemic. A systolic murmur was audible at the apex; the blood revealed 2,800,000 red cells and the spleen was very much enlarged. The abdomen was distended and the peritoneal cavity contained fluid. The patient improved under treatment. The author considers these 3 cases as examples of Banti's disease.

[F. J. K.]

2.—Sansom delivered an address entitled **heart disease in children** at the Manchester Children's Hospital, Pendlebury, before the Society for the study of disease in children. In this address the author mainly directs attention to examples of rheumatic heart disease, which he classifies as follows: (1) The temporarily swollen or enlarged heart of rheumatism; (2) the heart of rheumatic pericarditis; (3) the heart of rheumatic endocarditis with resulting valvular disease and (4) the heart of slow, insidious endocarditis inducing mitral stenosis. [F. J. K.]

3.—Caton delivered a clinical address at the Liverpool Royal Infirmary, on the **causes which prevent the restoration of normal valve function in rheumatic endocarditis**. He contends that the reason why the joints recover and the valves so often do not in rheumatic fever is found in the fact that the joints can rest while the toiling heart cannot abate its labors. The author reports 4 cases. The first 2 of these illustrate in a somewhat interesting manner the evil effects of too early a return to muscular activity and higher bloodpressures during the convalescence from valvulitis; the third points out the disastrous influence of rapid heart action and dyspnea on coincident valvulitis; the fourth exemplifies the evil result of mental agitation on a subsiding endocarditis even though absolute rest of limb and trunk be maintained, and all illustrate the several causes which, unless the physician carefully neutralizes them, ordinarily prevent the recovery of the endocardium from rheumatic disease. [F. J. K.]

4.—Thomas reports 70 cases of **inguinal hernia treated by the Kocher-Bassini method**. The sac of the hernia is treated by the Kocher method of lateral displacement and the posterior wall of the canal is closed after the method of Bassini. When the sac is very massive, it is inadvisable to invaginate it, the better way being to ligature the neck, excise the sac and pass the ligature by means of Kocher's forceps under the abdominal muscles for 2 or 3 inches, to bring it out through them, hauling the sac up as far as it will go, and fixing the ligature to the external oblique. Thomas prefers to use silk for buried sutures; he removes the superficial sutures at the end of 24 hours when the skin is tender or eczematous in order to prevent the formation of stitch abscesses. Two of the cases suppurred. The only dressing used after operation is gauze and colodion; no bandages are employed. [F. T. S.]

5.—Barker gives a table of 10 cases of **nonmalignant disease of the stomach** upon which he has operated during the past year. Gastro-enterostomy was performed 7 times for pyloric stenosis due to gastric ulcer, once for duodenal ulcer with severe hemorrhages, once for gastric ulcer with hour-glass contraction of the stomach and once for repeated bleedings due to gastric ulcer. All of the patients recovered from operation and remarkably improved in health; all were fed by the mouth as soon as the chloroform nausea had passed off; in almost all a tube was passed into the stomach during the first 24 hours with a view to relieving the stomach of blood and mucus and of regurgitated bile. [F. T. S.]

6.—Dalziel reports a group of 30 operations undertaken for **nonmalignant affections of the stomach**. Sixteen gave a definite history of ulceration. At operation, 18 presented well marked contraction of the pylorus; in 8 cases the obstruction was due to adhesions, the result of peritonitis originating from tuberculous glands behind the pylorus; in

3 the posterior wall of the stomach was found adherent to such an extent as to interfere with its muscular action; in one there was marked dilatation of the stomach without any apparent physical cause. Posterior gastro-enterostomy was performed 26 times, the anterior operation being selected in one case and being rendered necessary in the remaining 3 by the presence of extensive posterior adhesions. No mechanical aids were employed, the stomach and jejunum being united with 3 rows of sutures. As soon as nausea has passed, fluids are given by mouth, and at the end of 8 days semisolid food may be administered. In 3 of the above cases operation had been previously performed for the separation of adhesions with only temporary benefit. One patient died of shock as the result of a strangulation of a coil of intestine between 2 of the stitches which approximated the abdominal wall; 18 are as well as they ever were in their lives; 3 are improved but still suffer some pain; the remaining 9 are normal except for attacks of flatulence. [F. T. S.]

7.—Buck records a case of **postoperative hematemesis**. The patient was a spinster, aged 53 years, who was subjected to abdominal section for uterine fibroma complicated by salpingitis and ovarian cyst. Thirty-six hours after operation the patient vomited a large quantity of altered blood; this was repeated at intervals the following day. Recovery ultimately occurred. Buck thinks the vomiting of blood was due to reflex nervous action because of the severity of the operation. [F. T. S.]

8.—Bishop says **suturing of intestine** on movable forceps (O'Hara, Laplace) is easy and rapid, but no protection from the entrance of fecal matter between the line of union is afforded during the dangerous period immediately after operation. The crushing of the ends of the intestine may not be directly harmful, providing the necrosis proceed no further than the internal flange. Metallic couplers of the Murphy button type may be rapidly applied, but so many unpleasant results have followed their use that they should never be chosen unless the element of time is of the first importance. The method of suture over some absorbable material has great possibilities. Its advantages are that complete and satisfactory suturing is more easily and thoroughly carried out over its resistant surface; it protects the line of union from infective material until healing is complete; it maintains patency and decreases the possibility of postoperative stricture; and, when its period of usefulness is over, it disappears. In order to obtain the best results, such method should possess the following qualities: It should be easy of introduction; it should be simple and require no elaborate technique; it should be resistant and absorbable; it should be so made that the purse-string suture which encircles the ends of the gut should, as they are tightened, approximate these ends by the mere act of tightening; when in position it should present the ends of intestine in such a way as to facilitate their suturing; and it should be of such size and shape as to protect the line of suture during the period of plastic union. None of the bone bobbins on the market possesses all of these qualifications. Bishop presents 3 types of bone bobbin which attempt to supply all these requisites, one for enterectomy, one for gastro-enterostomy and one for pylorotomy. The ends are conically bevelled for ease of introduction, the bobbin consisting of one piece. In the center there is a depression for the bowel ends. The bobbins for gastro-enterostomy and pylorotomy differ from that for enterostomy in the flaring of one of the ends in order to fit the larger viscus. [F. T. S.]

MEDICAL NEWS.

September 6, 1902. (Vol. 81, No. 10.)

1. The Healing of Ulcerative Endocarditis. JAMES B. HERRICK.
2. Characteristics of Pulmonary Valve Affections, with Cases. THOMAS E. SATTERTHWAITE.

3. A Brief Consideration of the Scientific Treatment of a Few of the Diseases of the Heart.

I. NEWTON SNIVELY.

4. The Pathology and Treatment of Endo- and Pericarditis. WILLIAM HENRY PORTER.

5. Some Notes on Tricuspid Diseases.

THOMAS E. SATTERTHWAITE.

6. Embolism of the Mesenteric Artery.

ALEXANDER LAMBERT and W. B. COLEY.

1.—Herrick emphasizes the importance of being guarded as to prognosis in this disease and particularly in those cases in which the infectious agent is the pneumococcus or the streptococcus. In many cases reported as cured and in which the bacteria have been found in the blood, they have been streptococci or the treatment has been by anti-streptococcus serum. It is necessary to determine the particular microbe so that the prognosis and treatment can be made in the proper manner. [T. M. T.]

2.—Satterthwaite distinguishes the acquired from the congenital form of **pulmonary valve affection** in that there is less often cyanosis, and there are none of the characteristics of arrested mental and physical development. But if there is cyanosis, it is increased by coughing and there is dyspnea. The murmur is more definitely located than in the congenital form, because the force of the stream is undiminished by defects in the walls of the heart. It should be loud and rasping in the endocarditic forms. If the patient hold his breath, it should be somewhat fainter. The apex-beat is apt to be forcible and diffuse and there may be a thrill. The second pulmonary sound should be faint, but there may be insufficiency and a double murmur. The murmur is apt to be propagated from the middle of the base of the heart up toward the left shoulder as far as the clavicle. The point of greatest intensity is usually in the second left interspace. Usually there is an attendant pulmonary or bronchial disease of purulent character. [T. M. T.]

3.—Snively concludes his article as follows: (1) Each patient showing a **heart lesion** must be a study unto himself; (2) no heart medicine is needed unless the myocardium is unable to do its work in a physiological way; (3) the heart muscle should demand more consideration than the heart murmur; (4) rest is one of our best therapeutic agents; (5) we should try by every possible means to prevent myocarditis in all diseases in which this condition is apt to arise; (6) after any severe disease process we should insist upon the patient resting in bed long enough to allow the myocardium to be restored; (7) we should improve the general nutrition of our patients and restore the blood to a normal standard by the use of blood tonics; (8) we should investigate the kidneys in all cases showing signs of cardiac incompetency; (9) physical exercise, light gymnastics and properly selected diet are valuable aids in the treatment of cardiac disease. [T. M. T.]

4.—Porter states that the advisability or nonadvisability of **tapping the pericardium** is an interesting question, and one in which there is, as yet, no established rule of procedure. If the heart-action is positively embarrassed by the pressure of the fluid contained in the pericardial sac, it would seem that there is only one opinion and that is to relieve the pressure upon the heart at once by aspiration. In like manner, when the inflammatory effusion persists and resists all forms of treatment, judging from the satisfactory results obtained in connection with similar conditions in the pleural sac, the day may not be far distant when the pericardium will be more frequently aspirated successfully. True aspiration of the pleural and pericardial sacs is an entirely different problem from a practical and physiological standpoint, even though the pathological problem is almost identical. The former sac can be aspirated easily and successfully, while in the latter it will always be fraught with more or less danger to life. [T. M. T.]

MEDICAL RECORD.

September 6, 1902.

1. Organacidia Gastrica. MARK I. KNAPP.
2. Estivo-Autumnal Fever in Manhattan Island and Its Environs. HENRY STUART PATTERSON.
3. Why is Modern School Life So Often Disastrous to the Scholars, Especially to Girls?
RICHARD COLE NEWTON.
4. Prostatic Gonococcal Auto-Reinfections of the Urethra.
TERRY M. TOWNSEND.
5. The Effect of Ferric Perchloride in Large Doses in Erysipelas and Similar Inflammatory Diseases.
JENNIE G. DRENNAN.
6. Vaginal Operations for Retroversions and Retroflexions of the Uterus with a Critical Review of Fifty-seven Cases of Vaginal Suturing of the Round Ligaments (the Author's Operation). HIRAM N. VINEBERG.

1.—Knapp, discussing *organacidia gastrica*, says it is the most frequent of stomach disorders. The disease derives its name from the presence in the stomach of organic acids which to produce symptoms must bear a certain relation to the HCl. He divides the term into 3 distinct classes: (1) *Organacidia gastrica simplex*; (2) *gastrosis fungosa* and (3) *zymosis gastrica*. (1) Is caused by the transient presence in the stomach of organic acids in either absolutely or relatively large quantities; (2) and (3) are of a chronic character but can be cured by prolonged treatment. The most frequent of the 3 in this climate is *gastrosis fungosa*. Knapp introduces the term *gastrosis* in contradistinction to *gastritis* and by it he designates a pathologicochemical condition. *Gastrosis fungosa* signifies a pathologicochemical condition of the stomach due to the presence of molds. Knapp believes that there may be several varieties of mold in the chyme, but so far he has been able to differentiate but 2 varieties as most often occurring in the stomach. Macroscopically one is yellowish-green and the other is dark red. In microscopical quantities he has never missed seeing mold or its cause in the aspirated chyme. The symptoms of this condition can be summed up under the heading of the presence of irritating organic acids in the stomach. The diagnosis must be corroborated by an examination of the gastric contents. *Zymosis gastrica* occurs next in frequency. This pathologicochemical disease of the stomach is due to the presence of yeast-cells in their budding sporulating multiplying condition. This condition can be brought about by repeated ingestion of large quantities of the yeast-containing food and drink, by the diminution of the quantity of HCl or by the delayed secretion of the HCl. [T.L.C.]

2.—Patterson discusses *estivo-autumnal fever* in *Manhattan Island and environs*. Tertian intermittent fever has always been more or less common. The clinical experience of the last 3 summers has been such that we must infer that these cases have not been generally recognized or something has happened that has increased a variety of infection previously extremely rare. The writer states that the Spanish War would seem to be the period from which the more common occurrence of domestic cases of this fever dates. In the majority of city hospitals there are reliable records of cases from Cuba in 1898. The spring recrudescences of 1899 could well be the source of increasing infection of the anopheles in that year. [T. L. C.]

4.—Townsend presents a paper on *prostatic gonococcal auto-reinfections of the urethra*. His summary is as follows: (1) Early and vigorous efforts should be made to prevent gonorrheal prostatitis. (2) Once established, all care should be taken to prevent it from becoming follicular and chronic. (3) Auto-reinfections of the urethra from chronic prostatitis can be differentiated from acute infections. (4) An opinion on the probabilities of future recrudescences should be very guarded. (5) Each prostatic massage should be immediately followed by thorough irrigation of both portions of the urethra, to prevent recurrent acute urethritis. (6) Omission of this irrigation is sometimes permissible for diagnostic purposes. [T. L. C.]

5.—Drennan observes that the effect of ferric perchloride in large doses in *erysipelas* and similar inflammatory diseases is to circulate in the vessels surrounding the diseased area, the vessels in this area being obstructed, and here it exudes from the capillaries into the tissues in which they lie. This action of iron increases a clotted or

unsuitable area in which any bacteria, which have so far escaped being entangled, are prevented from advancing into new fields. The first was nature's barrier, that produced by the iron is a chemical one and requires large doses. [T. L. C.]

NEW YORK MEDICAL JOURNAL.

September 6, 1902.

1. A Contribution to the Differential Diagnosis of Appendicitis. EDWARD STAEHLIN.
2. A Résumé of Forty-eight Cases of Postoperative Crural Thrombosis. BENJAMIN R. SCHENCK.
3. Clinical Contribution to the Study of Empyema of the Frontal and Ethmoidal Sinuses, Complicated by Eye Disease. MAX TOEPLITZ.
4. The Age of Consent. ISADORE DYER.
5. The Use of Electricity in the Treatment of Habitual Constipation. SIGISMUND COHN.
6. New Mexico as a Health Resort. H. B. MASTEN.
7. Clinical Notes on Cardiac Diseases.

STANLEY S. CORNELL.

1.—Staehlin reports in detail the case histories of 12 patients, in all of whom the diagnosis was difficult. Some of these cases proved to be *appendicitis*, although they were not diagnosticated, while others, in which the diagnosis of *appendicitis* was made, proved not to have been *appendicitis*. But 2 of these cases were fatal, both of them primary attacks of acute, virulent peritonitis, followed by general septic peritonitis without perforation. One died of typical pyemia, the other of septicemia. [M. O.]

2.—Schenck has reviewed 48 cases of *thrombosis of the veins of the lower extremities*, found among over 7000 cases which entered Johns Hopkins Hospital for gynecological operations. By far the greater majority followed *hysteromyomectomy* and *myomectomy*. He concludes that *thrombosis of the crural veins* is more common after pelvic operations than is generally recognized. It occurs more frequently in those cases in which large tumors of the pelvic organs have been removed. It rarely follows extrapelvic operations. In this series it has been infrequent after infected cases. The anemia and cachexia in consequence of new growths seem to be factors in its causation. Constipation and the use of enemata play a doubtful part in the etiology. Traumatism at the time of the operation should be borne in mind and deep retractors used with extreme care. Infection is undoubtedly of great importance, but its frequency is difficult to decide. This complication often occurs when least expected and usually late in convalescence. Albumin in the urine is more frequent in these cases than in those running an uninterrupted course. The results of rest and elevation for the full length of time are excellent. When the time is lessened, swelling and pain persist, and the danger of pulmonary embolus is increased. [M. O.]

3.—Toeplitz reports a case of *empyema of the frontal and ethmoidal sinuses* in a man of 48, whose first headaches began 4 years ago. Epistaxis followed about 3 weeks ago. Last year his headaches returned, there was a foul odor from the nose, though the sense of smell was not impaired, his breath was bad, and he felt languid and tired. Examination settled the diagnosis of *empyema of the right frontal and ethmoidal sinuses*. Exophthalmia, diplopia and chemosis of the conjunctivæ followed. Operative interference was followed by recovery, an abscess being found in the lower eyelid. This is the first case of abscess of the lower lid reported in connection with frontal disease following intranasal curettement. [M. O.]

5.—By *habitual constipation*, Cohn means a primary condition of retarded intestinal peristalsis, due solely to atony of the muscular coat of the bowels. This loss of muscular power may be caused by diminished sensibility of the nerve filaments, changes in the muscles themselves or in the nerves governing the process of evacuation. The diagnosis is often difficult. This atonic condition can only be overcome by mechanotherapy. In starting the treatment, Cohn uses static electricity, having but one pole in contact with the patient. The static induced current, a current of high tension and high frequency, concentrates its strength between the 2 points of the body, upon which the electrodes are placed. Next in activity he places the sinusoidal and faradic currents, using the galvanic current only with enteroclysis. Out of 12 cases under treatment, 9 recovered

completely. He concludes that electricity should be placed first in the treatment of habitual constipation, especially with the static current. The reduction of abdominal circumference with electricity proves the influence of the current upon the abdominal muscles. This is best obtained by administering the undulating current. [M. O.]

6.—Masten reviews the many advantages of the climate of New Mexico, showing its value as a health resort.

[M. O.]

7.—Cornell reports 6 cases of cardiac affection, 4 of which were true angina pectoris. In one pleuropericarditis occurred with recovery. In the last case there was pericarditis, with death following suddenly. The symptoms of these cases are given in detail. [M. O.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

September 6, 1902.

1. The Modern University School—Its Purposes and Methods. JOHN M. DODSON.
2. Should the General Practitioner Have a Working Knowledge of the Ophthalmoscope and Trial Lenses? ALBERT RUFUS BAKER.
3. Teaching Ophthalmology to Undergraduates. FRANK C. TODD.
4. Psychology of Habit in Surgical Technique. R. C. COFFEY.
5. The Teaching of Therapeutics and Pharmacology from the Experimental Standpoint. TORALD SOLLMANN.
6. The Place and Importance in the College Curriculum of Materia Medica. WARREN B. HILL.
7. The Place and Importance in the College Curriculum of Therapeutics. HOBART AMORY HARE.
8. Mental Therapeutics and the Need of Psychology in the Medical Curriculum. HOWELL T. PERSHING.

1.—Dodson contributes an article entitled *the modern university school—its purposes and methods*. He discusses, at some length, the university teaching system in America and contends that the purposes of the university medical school, organized on the lines which he indicates from his paper, will be broader and more comprehensive than those of the existing medical schools because of its larger facilities and possibilities. He summarizes briefly: (1) The preparation of men for the practice of medicine—undergraduate instruction; (2) the training of selected students for teaching and research work; (3) to offer opportunities for practitioners to keep pace with the advance of medicine—such as we are now afforded by polyclinic schools; (4) the preparation of men for public health service; (5) to extend the bounds of medical knowledge by affording opportunity and encouragement for research work; (6) to investigate and pronounce authoritatively on alleged new discoveries bearing on medicine; (7) to educate the public along medical lines by methods of university extension. He thinks that the outlook of the university medical school is most hopeful and, while it has not yet come to its full glory and usefulness, we may rest assured that the signs are most encouraging, and that in the near future we shall have in operation in America medical schools in advance of any which the world has yet seen. [F. J. K.]

2.—Baker thinks the general practitioner should have a working knowledge of the ophthalmoscope and trial lenses. He believes that the knowledge of this work would hinder the spectacle venders from reaping the harvest which properly belongs to the medical profession. [F. J. K.]

3.—Todd discusses *teaching ophthalmology to undergraduates* and writes as follows: While there is doubt that too little attention was formerly paid to the specialties, he believes that we are going to the other extreme and trying too much. We are giving too much detail and are wasting valuable time in the attempt to cover the entire subject with all the theories and varieties of diseases that to us as specialists seem important. Neurologists, dermatologists, ophthalmologists and other ologists who work along specific lines are apt to become narrow and overestimate the importance of their particular branch, and to forget that there are other branches more essential in fitting a

man for practice. We must bear in mind that we are educating our students to become general practitioners and it is not within the scope of the undergraduate medical college to make specialists of them. If we occupy more of their precious time than is necessary to teach them only those things which are essential to their general practice, we are stealing time which should be devoted to the more important fundamental branches. [F. J. K.]

4.—Coffey, in discussing the *psychology of habit in surgical technique*, defines habit, refers to its nature and results and recommends its proper application to surgical technique. Great stress is laid upon the necessity of developing the habit of absolute cleanliness in all surgical work.

[J. H. G.]

5.—Sollmann contributes an article on the *teaching of therapeutics and pharmacology from the experimental standpoint*. This paper considers in detail an outline of the teaching of therapeutics and pharmacology. [F. J. K.]

6.—See *Philadelphia Medical Journal*, June 21, 1902. Page 1103.

7.—See *Philadelphia Medical Journal*, June 21, 1902. Page 1103.

8.—Pershing contributes an article entitled *mental therapeutics and the need of psychology in the medical curriculum*. So convinced is he of the importance of this subject that during the past year he has given the medical students of the University of Denver a course of lectures on psychology in its relation to the practice of medicine, and the trustees have made it an essential part of the course. He believes that the University of Denver is a pioneer in giving systematic, although elementary, instruction in this field, and he predicts that in a few years all schools will furnish more elaborate courses of the same kind. [F. J. K.]

AMERICAN MEDICINE.

September 6, 1902.

1. Surgical Features of Typhoid Fever. THOMAS McCRAE and JAMES F. MITCHELL.
 2. A Frame for the Application of Plaster-of-Paris Jackets in Pott's Disease. ROBERT W. LOVETT.
 3. The New Antiserum Method of Differentiating Human from Other Blood and Its Medicolegal Aspect. ARTHUR J. PATEK and WILLIAM C. BENNETT.
 4. Rupture of Heart. R. L. LEAK.
 5. Perforation in Typhoid Fever With Report of Severe Operative Cases. GEORGE L. HAYES.
 6. Atresia of the Vagina (Colpatresia), Unilateral Ovary and Tube, with no Uterus. CHARLES E. BARNETT.
- 1.—Will be abstracted when concluded. [T. L. C.]
- 2.—Lovett describes a *frame for the application of plaster-of-Paris jackets in Pott's disease*. The apparatus consists of an oblong gaspipe frame of the ordinary pattern. Fastened to this near the middle and hinged so as to be raised to any degree is another section of gaspipe lying on the frame proper and of the same shape and size as the upper half of the frame. To this movable section is fastened at right angles to it and movable on it a gaspipe bridge, rising about 18 inches from the movable section. The patient lies straight downward on 2 straps of webbing one inch wide, running from buckles attached to the bottom of the frame to buckles attached to the end of the movable section. A cross-piece of webbing runs across the movable section and furnishes a head rest, another cross-piece of webbing runs from side to side of the main frame and crosses just below the pelvis; a similar cross-piece supports the legs. The method of application is described. It is claimed that this method possesses the advantage in the proper regulation in the amount of force used and the localization of the force. [T. L. C.]
- 3.—Patek and Bennett present what they term a *new antiserum method of differentiating human blood from other blood* and discuss its medicolegal aspects. The method described is essentially that of Uhlenhuth. [T. L. C.]
- 4.—Leak states that, in the *St. Lawrence Hospital* (New York) since 1891, there have been 5 deaths due to *rupture of the heart* in 560 necropsies. He presents brief notes of these 5 cases. [T. L. C.]
- 5.—Hayes reports 7 operative cases for perforation in

typhoid fever. Three of the 7 operations were successful, which gives for the series a recovery of 42.85%. The clinical notes of the cases are presented. [T. L. C.]

6.—Barnett reports a case of **atresia of the vagina**. There was only one ovary and tube and no uterus. An enlarged right Fallopian tube supplied the uterine deficiency and by this means menstruation had been performed. [T.L.C.]

BERLINER KLINISCHE WOCHENSCHRIFT.

June 2, 1902. (39. Jahrgang, No. 22.)

1. Albuminuria in Pregnancy. J. VEIT.
2. A New Method of Preventive Inoculation in Anthrax. G. SOBERNHEIM.
3. Experiments in the Osmotic Analysis of the Urine of Infants. PAUL SOMMERFELD and HANS ROEDER.
4. The Gastric Splashing Sound Again. HANS ELSNER.
5. Acute Phthisis. ALBERT FRAENKEL.
6. Kreuznach Baths in the Treatment of Heart Disease. E. BOEHR.

1.—Will be abstracted when concluded.

2.—Sobernheim reports his experiments upon immunization by inoculating anthrax serum and then injecting a weak culture of anthrax bacilli into the animal. After giving the experiments in detail, he concludes by recommending his combined immunization. It is absolutely free from danger, not having killed one animal; it can be injected in one day, not needing a longer time, as does the Pasteur method; a stronger and more effective culture is used than the Pasteur vaccine, which explains the greater intensity and the longer immunity which results; and, finally, anthrax serum alone may cause recovery in animals, a result never obtained with the Pasteur method. [M. O.]

3.—Will be abstracted when concluded

4.—Elsner, who believes the sound of gastric splashing to be of little diagnostic value, examined 26 healthy women, who had born at least one child, and found it present in 10 of them. Their case-histories follow. Nor is its presence a sign of gastric atony, whether during digestion or later. In some cases, in which the sounds of gastric splashing occur easily and superficially, the stomach may be somewhat affected. [M. O.]

5.—Acute phthisis may be circumscribed, disseminated or diffuse. In the circumscribed form hemoptysis occurs early, with or without fever. As a rule the fever appears a few days later; for after hemoptysis the bacilli become active. The apex is first involved, because it is relatively anemic. Besides, chronic indurative processes are frequent at the apices, which cannot expand well. That the process often begins in the bronchi is due to continued irritation of the bronchial mucous membrane by inhaled dust, etc. In the disseminated form several tubercular foci exist, a cavity is found and tubercle bacilli are found in the sputum. Or hemoptysis does not occur while the symptoms are those of multiple caseous bronchitis and peribronchitis. Here, too, cavities are frequently the result. The third variety of acute disseminated phthisis is galloping consumption, with multiple cavity formation. Mixed infection or some intercurrent constitutional disease exists. When any of these forms of acute phthisis are so close together as to form pseudolobar caseous pneumonia, the condition becomes diffuse phthisis. The forms described increase in virulence as they reach the last mentioned form, that being the most fatal. Many complications are also given. Finally the tubercular process may result in a subacute fibrous phthisis. [M. O.]

6.—Kreuznach water, like that of Nauheim, contains about 1% of sodium chloride. Kreuznach, however, has but little free carbonic acid. Boehr reports 10 case-histories of patients with heart disease treated by Kreuznach baths. Three of them were recent cases, following rheumatism, but 2 were old cases, one 3, the other 4 years in duration.

The others had existed some months only. Eight were cases of valvular disease. The details of the baths, their preparation, length, temperature, etc., follow in full, as do the 10 case-histories. The patients gained in weight and looked better after a month's treatment. In 2 marked cases of lost compensation, all signs disappeared. In 3 cases the pulse improved greatly; while in one case cardiac hypertrophy disappeared. In 2 cases murmurs also disappeared. In all, the results were very good. [M. O.]

June 9, 1902. (39. Jahrgang, No. 23.)

1. Marriage and Venereal Disease. E. LESSER.
2. The "Blood-cleansing" Function of the Kidney. H. STRAUSS.
3. Acute Ascending Paralysis in Exophthalmic Goiter. M. ROSENFELD.
4. Albuminuria in Pregnancy. J. VEIT.
5. The Osmotic Analysis of the Urine of Infants Upon Various Foods. P. SOMMERFELD and H. ROEDER.

1.—Gonorrhea and syphilis enter into the question of marriage. Lesser divides patients into 3 groups, those who contemplate marriage: those engaged to be married; and those already married. In the first group, when gonococci are found, marriage should not follow: when the urethra is normal and no bacteria are present, marriage may be allowed; when there is doubt, yet gonococci are found, if there is secretion, and pus is noted in the urine, the patient had better not marry. In the second group the same precautions apply. In the third group, besides, care must be taken not to allow the wife to contract the disease. In all cases attempts should be made to cure the gonorrhea quickly. Unlike gonorrhea, syphilis is a chronic constitutional disease. If seen in men of the first group, thought of marriage should be deferred for 5 years at least, and energetic treatment should be begun. If the patient be engaged, this should be broken off. If it be contracted after marriage, care should be taken to protect the wife from infection, an almost impossible undertaking. Finally Lesser states that it is the duty of the physician to make patients understand when they must not marry and why. [M. O.]

2.—Strauss has examined the bloodserum and transudates of over 200 patients with nephritis for retained nitrogen after the removal of albumin, with the quantitative estimation of uric acid and ammonia. This was higher in patients with chronic interstitial nephritis than in normal subjects or those with chronic parenchymatous nephritis. Ammonia and uric acid were generally increased, the sodium chloride and ash showing but little variation. Molecular concentration was only raised with uremia. The serotoxicity was, however, greater with chronic interstitial than with chronic parenchymatous nephritis. In the latter a dilution of the retained nitrogen occurs in the circulation and tissue juices; in the former cardiac action increases, polyuria results, with increased total tissue fluids, but diminished sodium chloride and molecular concentration. In both conditions the heart should receive attention, for the change in some cases from parenchymatous to intestinal nephritis depends on the condition of the heartmuscle. The withdrawal of fluids, while indicated in many cases of cardiac insufficiency, is not advised when the heart's action is normal. To prevent uremia albumin should be cut down, carbohydrates and fat being used. Hot steam baths to promote perspiration are indicated in uremia. When given in nephritis, much fluid should be ingested afterward. Washing out the stomach and intestines is indicated in uremia. Transudates should be evacuated early and venesection is advised even before uremic symptoms appear. [M. O.]

3.—After a short review of the literature, Rosenfeld reports a case of acute ascending paralysis in a man of 19, with exophthalmic goiter of a year's duration. In spite of treatment emaciation has become marked and death is feared. [M. O.]

4.—After a long and detailed discussion of the physiology of albuminuria in pregnancy, Veit shows by his experiments that placenta implanted in the peritoneum of rabbits caused albuminuria: that the skin pigmentation of

pregnant women contained iron; that urine of pregnant women contained more iron than that of other women; that hemoglobin was rarely found in the bloodserum of pregnant women, while it was often present in that of women in labor; and that the bloodserum of newborn infants generally did not show hemoglobin. Thus albuminuria and sometimes hemoglobinuria result physiologically, even causing the so-called kidney of pregnancy. The literature is fully reviewed. [M. O.]

5.—Sommerfeld and Röder report in detail their experiments in investigating the osmotic analysis of the urine of 11 infants upon different food preparations. The molecular concentration of the urine is increased when sodium chloride is ingested. The freezing-point of the urine of infants is less than that of adults and varies with the food, being high with undiluted cow's milk and buttermilk, low with diluted cow's milk and mother's milk. Mother's milk gave the least variations. [M. O.]

DEUTSCHES ARCHIV FUER KLINISCHE MEDICIN.

Band 72. Heft 1.

1. Chloroma and Leukemia. ROSENBLATH.
2. Contribution to the Knowledge of Chloroma. RISEL.
3. Critical Days and Cosmic Influences upon Pathological Processes. BRUNNER.

1.—Rosenblath reports 2 cases of chloroma. The first, a boy of 15 years, had been ailing for 2 months. The right eyeball became prominent, but otherwise there were no physical signs of disease. After being 2 weeks in the hospital he suddenly developed an hemorrhagic eruption on the legs and buttocks. The spleen was enlarged and there was optic neuritis. A tumor was felt in the right orbital region. The condition of the patient continued to grow worse, he had severe bleeding from the nose, became anemic, there was hemorrhage into the left fundus oculi, the blood showed leukemic changes, there was fever and the patient finally died, 3½ months after the onset of the disease. Shortly before his death the bloodcount showed 1,000,000 reds, and 300,000 whites, with a predominance of large mononuclear forms. At the autopsy tumors were found in the muscles of the back between the dura mater and the spinal column and in the right orbital cavity. The mesenteric lymphnodes were greatly enlarged and some of them cheesy. A tumor was also found lying upon the spinal column in the lower dorsal region and another in the lumbar region. A diagnosis of chlorolymphoma was made. The second, a boy of 8 years, had fallen upon his head 10 days before his admission. Two days later it was noticed that the right eye was prominent. He became dull, both eyes became exceedingly prominent, there was a marked leukocytosis, but no other physical signs. Later he developed numerous white nodules in the skin, there were glands under the jaw, the hard palate was pushed into the cavity of the mouth, the nasal respiration was disturbed and there was tenderness over the bones of the legs. The spleen was slightly enlarged. The patient died 2½ months after the receipt of the injury. The most important feature of the blood was the excessive number of mononuclear leukocytes. At the autopsy tumors were found in the orbital cavity, in the nasal cavity, the lymphglands of the neck and thorax were enlarged, the mesenteric glands were also enlarged and the spleen was moderately enlarged. Tumors were also found attached to the spinal column. Microscopical examination proved the tumor to be a lymphochloroma and there were cheesy areas in the enlarged lymphnodes. Rosenblath discusses very carefully the clinical course of chloroma and acute leukemia. He believes that the disease has a rather typical symptomatology, and that in the future the diagnosis should be made frequently. In conclusion he reports a case of acute leukemia occurring in a cook, 24 years of age, who had suffered from chlorosis. The disease commenced with epistaxis, profuse menstruation, weakness, hemorrhagic eruptions on the skin, impaired vision and a marked leukocytosis. The red bloodcells were

greatly diminished. The mononuclear leukocytes were in excess in the blood. The patient died and the autopsy showed anemia, multiple hemorrhages into the tissues and an abscess of the lung. There was also pyoid bone marrow and lobular pneumonia. He believes that the leukemic condition of the blood is rather a symptom than a disease, properly speaking. [J. S.]

2.—Risel discusses the pathological changes in the organs of the first case reported by Rosenblath. Details of the histological examination can be summarized as follows: Fatty degeneration of the myocardium, greenish tumors consisting of small mononuclear round cells with a fine connective tissue reticulum resembling the structure of lymphomata or lymphosarcoma. The case is peculiar, because there is no metastasis or infiltration of the bones of the skull, the presence of an old tuberculous process in the enlarged and green mesenteric lymphnodes, and the absence of other tuberculous changes in the body. The occurrence of a leukemic condition of the blood in both cases is particularly interesting, because these tumors have been classed with the leukemic tumors. In regard to the relation of tuberculosis to these processes, Risel believes that, in his case, although the occurrence of tuberculosis is very remarkable, it cannot be positively stated that it is more than accidental. In regard to the nature of the color, after discussing the various theories, Risel reaches the conclusion that we do not know what it is, but inclines to the belief that it is some parenchymatous change. [J. S.]

3.—Brunner has prepared some very elaborate tables which tend to prove that the changes in the course of croupous pneumonia bear a certain definite relation to the phases of the moon. He believes that in organic life critical days occur that are due to some cosmic causes, perhaps the periodical variations in gravity. [J. S.]

ARCHIV FUER KLINISCHE CHIRURGIE.

1902. (Volume 66, Nos. 3 and 4.)

10. Abdominal Contusions and Peritonitis Following Subcutaneous Intestinal Injury. THOMMEN.
11. Diffuse Enchondroma of the Joint Capsule. W. MUELLER.
12. The Operative Treatment of Benign and Infectious Thrombophlebitis. W. MUELLER.
13. The Operative Treatment of Ascites from Compression of the Portal Vein. W. MUELLER.
14. The Anatomy of Gout. ERICH BENNECKE.
15. So-Called Fracture of the Neck of the Femur. PELS-LEUSDEN.
16. Pulmonary and Vertebral Actinomycosis. MARTENS.
17. A Communication From the Accident Department of the Charité Hospital. A. KOEHLER.
18. The Surgical Treatment of Aleppo Boil. THEODOR WALZBERG.
19. Acute Duodenojejunal Occlusion. THEODOR WALZBERG.
20. Brain Injury Following Blunt Force and its Relation to Fracture of the Skull. O. TILMANN.
21. The Surgical Treatment of Malignant Sarcoma of the Long Bones. W. KRAMER.
22. The Special Indications for Operation in Appendicitis. WETTE.
23. Multiple Bullet Wounds of the Small Intestine. C. FRANCKE.
24. The Old Surgeons of Hildesheim. ERNST BECKER.
25. The Nature of Acetonuria. WALDVOGEL.
26. Gastric Hemorrhage Following Abdominal Operation. M. LANDOW.
27. Arterial Injury With Dislocation of the Humerus. W. KOERTE.
28. A Case of Traumatic Gastric Ulcer. JAECKH.
29. Congenital Anal Fistula. KURT BARTHOLDY.
30. Left-sided Crural Thrombophlebitis After Laparotomy. RIEDEL.
31. Retrofascial and Muscular Hernia of the Anterior Abdominal Wall. RIEDEL.

32. Rupture of the Ligamentum Teres from the Umbilicus. RIEDEL.
33. Fracture of the Lower End of the Radius. J. ROSENBACH.
34. Foreign Bodies in the Esophagus. DOBBERTIN.
35. The Etiology and Treatment of Infectious Stricture of the Rectum. WEGNER.
36. Traumatic Ossifying Myositis. GRAF.

10.—Thommen reviews the cases of abdominal injuries seen during the past 22 years in Basle. The case-histories of 49 patients with abdominal contusions, 16 of whom underwent operation, follow. The viscera were injured in 27 cases, in 20 of which the intestine ruptured at the site of the contusion. In 28 cases the effect was widespread, the viscera being less seriously affected. Perforation generally follows crushing. The wounds were found in the ileum in 15 out of 18 cases. The abdominal glands and the bladder were injured in 10 cases. Symptoms observed were unconsciousness, shock, pain, irregular respiration, vomiting, dysuria, abdominal rigidity, etc. Local or general peritonitis may follow rapidly. In the diagnosis the presence of air in the abdomen, rigidity, tenderness, vomiting, shock and pain are important. Prognosis is bad. Thommen advises early operation for severe abdominal contusions. From experiments on animals he concludes that the peritoneal injury occurring with abdominal contusions causes a more severe effect through functional peritoneal changes than when the viscera are injured without any contusions. Peritoneal absorption is hindered, the secretion increased, the resisting powers and ability to produce antitoxin diminished. [M. O.]

11.—Müller reports a case of diffuse enchondroma of the joint capsule in a man of 25. The specimen is described in full with photographs. The patient recovered. [M. O.]

12.—Müller reports 12 case-histories of thrombophlebitis, in all of which patients immediate operation, resection of the affected vein, was successfully performed. If possible, the operation should be done before thrombosis occurs. He considers that thrombophlebitis with varicose veins of the legs is an indication for operation. [M. O.]

13.—Müller reports a case of ascites due to compression of the portal vein, in a man of 34, treated by laparotomy, freeing all adhesions about the liver, pylorus, etc. Ascites has not returned since operation. Müller considers such cases of inflammatory adhesions compressing the portal vein to be more frequent than is generally supposed. [M. O.]

14.—Bennecke has studied a preparation removed from a patient with gout, describing the histological details. Necrosis occurs and crystals are found dividing it from healthy tissue. Reaction follows with leukocytes which enter the necrotic area, taking up necrotic material. Absorption occurs and granulation tissue grows from the periphery, causing the disappearance of the necrosis and crystals, a cicatrix resulting. The poison causing the necrosis must be a powerful one. [M. O.]

15.—Pels-Leusden believes that the X-rays are the best means of finding the position of fractures. Out of 103 cases of fracture of the neck of the femur, 28 were not confirmed by radiographs. Sixty-two of the remaining 75 were in women, 41 in men, as a rule from 50 to 80 years old. The left femur was most often injured. But 15 died under treatment. Thirty-three affected the neck of the femur, 16 were in the intertrochanteric line, 15 were comminuted and 8 were oblique from one to the other trochanter. The occurrence of this fracture is explained hypothetically and several case-histories are given. He divides them into those of the neck of the femur, those of the trochanter, generally comminuted, and those of the epiphyseal line in adolescence. Most of the fractures about the trochanter occur in bending. True traumatic coxa vara is not always the consequence of a complete or incomplete fracture in the epiphyseal line, but often follows a fracture in the neck of the femur or intertrochanteric line. [M. O.]

16.—Martens reports a case of pulmonary and vertebral actinomycosis in a woman of 32, who had catarrhal bronchitis for 2 years. Then dulness was noted with suppuration of the cervical vertebræ, treated as tuberculosis. Later actinomyces were found in her sputum. In spite of potassium iodide she grew worse and died. A full autopsy report follows. The actinomycosis was probably primarily pulmonary. [M. O.]

17.—As most of the accidents treated in the Charité Hospital needed mechanical treatment, massage, active and passive motion and exercise were frequent. Therefore apparatus was necessary. A description of the appliances follows, with several case-histories to show their usefulness. In all, 330 patients were treated, including postoperative treatment, 50 women and 280 men. [M. O.]

18.—Walzberg reports a case of Aleppo boil in a traveler, after returning from the Orient. Cauterization made it worse, but total extirpation of the boil and surrounding inflammatory tissue, covering the defect with a skin flap, was followed by recovery. No bacteria of any kind were found. [M. O.]

19.—Walzberg reports 3 cases of acute duodenojejunal occlusion, treated by operation, with but one recovery. The mesentery is generally lengthened. Diagnosis depends on late vomiting, with long periods without vomiting, the patient remaining in good condition between attacks, the lack of symptoms after operation, gastric dilatation and the characteristic vomitus containing bile and red bloodcorpuscles. In the treatment gastric lavage is advised after operation. [M. O.]

20.—The skull may be crushed between 2 opposing surfaces, it may be struck when still or moving, or it may strike, by falling from a height. The effect depends on whether the surface striking it is flat or jagged. Though results vary, it is plain that, while the outer bony plate is always injured, the inner plate and the brain generally escape injury. After describing several cases and a large number of experiments, Tilmann states that the brain may be injured without injury to the skull, by the force with which the brain substance is thrown against the skull. When the skull is injured on both sides, fractures result. A fissured fracture may follow, with injury to the brain, if the dura be hurt. Injury by "contrecoup" is only seen when a force strikes the moving skull. In a fall, the brain substance, striking the site of injury, makes this worse. An indirect fracture of the roof of the orbit, with a gunshot wound, is the result of the wound on the brain. When the violence is a blunt force, it is probable that such a fracture is also the result of brain injury. [M. O.]

21.—Kramer reports the case-histories of 10 patients with malignant sarcoma of the long bones. Two, composed entirely of giant cells, did not recur after operation. In 3 cases he performed conservative resection, 2 of them dying of metastases, the other remaining well after operation. Of the other 5 patients, amputation was done on 3, exarticulation on one and one died without operation. Of those amputated, one died of metastases, the other 3 remaining well. Thus 6 out of 10 patients are living, without recurrence. He advises resection of the tumor only in small, slowly growing, well-encapsulated tumors, containing round or spindle cells. In all other cases exarticulation or amputation will be necessary. [M. O.]

22.—In a long exposition on appendicitis, describing 35 operated cases, Wette concludes that simple appendicitis should be treated medically in most cases, and that recurrent or chronic appendicitis can only be cured by removing the appendix. Immediate operation is indicated when acute diffuse peritonitis occurs, when the diagnosis of diffuse peritonitis is uncertain, when, in circumscribed peritonitis, perityphlitic abscess or acute purulent perityphlitis, symptoms do not improve by the third or fourth day, in all cases of circumscribed acute peritonitis of severe onset, and in acute recurrence in perforative appendicitis. In other cases of recurrent appendicitis operation should be performed during the interval between attacks. Narcotics should never be given. The appendix should be removed in all cases. He appends the case-history of a patient with tubercular appendicitis. [M. O.]

23.—Francke reports the case of a girl of 12 who shot herself in the abdomen. Laparotomy revealed 12 bullet wounds in the jejunum and ileum. Fifty cm. of intestine, containing the wounds, were resected, lateral entero-anastomosis being done. The child recovered slowly, a psoas abscess following as the bullet had lodged in the psoas muscle. The operation is described. [M. O.]

24.—Becker has reviewed the history of the ancient surgeons of Hildesheim, describing the life and actions of those who lived in the fifteenth and sixteenth centuries. [M. O.]

25.—Waldvogel has reviewed the literature upon acetone-

ria. This affection is not due to inanition, but to intoxication with fat destruction. It is found in many conditions. In diabetes it is due to decreased oxidation and too little carbohydrates. Following digestive disturbances alimentary acetonuria occurs. Acetone is probably elaborated in the glandular tissues, following fat destruction. Waldvogel concludes that the latest work on the subject shows that acetone is not a poison, thus disproving the theory of enterogenic auto-intoxication. [M. O.]

26.—Landow reports 3 cases of **gastric hemorrhage after abdominal operations**, incision for ileocecal abscess, cholecystotomy and removal of the appendix. In the first case, which ended fatally, embolism probably caused the hematemeses; in the others the vasomotor centers were probably affected by the chloroform. In the last patient chloroform icterus also occurred. Both patients recovered. [M. O.]

27.—After reviewing the literature of **rupture of the axillary artery with dislocation of the humerus**, Körte reports a case of subcoracoid dislocation in a man of 54, in whom the axillary artery was ruptured, aneurysm resulting. This makes the eighth reported case. The aneurysm was incised and the artery sutured. Erysipelas, secondary hemorrhage and partial gangrene resulted. The artery was ligated and finally resected. Paralysis of the forearm and hand followed. Other cases from the literature are given, with a description of the symptoms. [M. O.]

28.—Jäckh found 8 cases of **traumatic gastric ulcer** in the literature. He reports another, in a man of 35, following severe epigastric contusions. A perigastric tumor was diagnosed and laparotomy performed. An abscess was found between the stomach and liver, with a perforation of the gastric wall near the pylorus. This fistulous opening, with part of the gastric wall, was excised and the patient recovered. Three somewhat similar cases are quoted. In such cases gastro-enterostomy may be indicated. [M. O.]

29.—Bartholdy reports a case of **congenital fistula in ano** in a man of 53, which was excised. It contained fecal concretions. The patient recovered. Examination showed the absence of cicatricial tissue, and the continuity of the epithelium spoke for the possibility of its being congenital. Lymphatic and capillary telangiectasis was noticeable, as were typical embryonal cells. A full histological description follows. Bartholdy concludes that this anal fistula was the remains of a primitive anomaly. [M. O.]

30.—In explaining the frequency of **left-sided thrombophlebitis of the crural vein** after laparotomy, Riedel states that 3 veins empty into the left iliac vein almost at right angles, while but one enters the right iliac vein, and that at an acute angle. To this anatomical difference he attributes the occurrence of left-sided thrombophlebitis of the crural vein. [M. O.]

31.—Riedel gives the case-histories of 3 patients with **retrofacial and muscular hernia of the anterior abdominal wall**. The symptoms resemble those of gastric ulcer. In 2 cases a peritoneal lipoma was removed, in the other a peritoneal cyst. The patients all recovered. [M. O.]

32.—Riedel reports a case of **rupture of the ligamentum teres from the umbilicus** in a woman of 30. This had evidently occurred at the age of 3 months, with a paroxysm of pertussis. It was attached to the anterior abdominal wall by operation, with success. [M. O.]

33.—**Carpal fracture of the radius** is most frequent in children over 10 and in adults, while fracture of both bones of the forearm is most common under 10 years of age. This occurs more often on the left than the right side. Of 494 fractures of the radius the majority occurred between 10 and 20 years of age, 321 in men, 173 in women. In most cases the fracture followed falling upon the outstretched palm, in 16 it followed direct violence and in 41 a fall upon the back of the hand. The typical dislocation of the fragment was noted in most cases. In 8 patients carpal fracture of the radius occurred in both arms simultaneously. Reduction was easily accomplished by König's method. From 1877 to 1898 over 600 such cases were treated in the Göttingen Poliklinik, 494 of them being without complications. Of these only 238 could be found. One hundred and sixty-eight recovered without deformity, 48 with slight deformity and 22 with marked deformity. Of these, 174 had good use of the arm, in 53 function was slightly impaired and in 11 motion was restricted. A large number of statistics follows. [M. O.]

34.—**Foreign bodies in the esophagus** may vary in consist-

ency. Dobbartin reports 10 cases. The patient feels that he has swallowed something, this may be palpated and perhaps seen with mirrors or felt with the sound. The esophagoscope will be of service to locate it, while illumination and auscultation posteriorly along the left side of the spinal column may be of aid in diagnosis. The length of time which the object has been in the esophagus and its situation are important in the prognosis; for perforation may follow with abscess. When possible the object should be removed without operation; if digestible, it may be digested *in situ*. The operation done for removing foreign bodies are **esophagotomy, gastrotomy and opening the esophagus through the posterior mediastinum**. Operation is indicated when mechanical methods fail or hemorrhage or symptoms of abscess occur. Esophagotomy is most often indicated, because it is of use in removing objects high up in the esophagus; gastrotomy is indicated for removing objects in the lower third of the esophagus; operation through the posterior mediastinum is indicated when periesophageal abscess occurs. The 10 case-histories follow, in 7 of which esophagotomy was performed. [M. O.]

35.—The symptoms of **infectious stricture of the rectum** are constipation, bloody or purulent discharge, painful defecation and general weakness. By digital examination the stricture is felt. In 20 out of 32 cases observed in 6 years, the stricture was from 3 to 5 cm. above the sphincter. The mucous membrane above the sphincter is papillomatous and ulcerated. Out of the 17,000 patients but 32 rectal strictures were found. The condition is most common in women, and is generally venereal, due either to syphilis or gonorrhea. Fourteen cases were surely syphilitic, while 7 were surely gonorrheal. The minute histology of the condition is described and the literature quoted. **Palliative treatment** was sufficient in 19 cases, sounds and irrigation. **Resection** was performed in 7 cases, **colostomy** in 6. Colostomy is to be preferred to resection when the stricture is high up, when rectovaginal or purulent anal fistula exists, when stricture recurs after using sounds and when the rectum must be emptied immediately, in very weak individuals. [M. O.]

36.—Graf reports one of those rare cases of **traumatic ossifying myositis**, affecting the adductor magnus muscle of a man of 57, following a single injury. Such cases are rare, though ossification following repeated injuries is common in the muscles of officers who ride constantly. [M. O.]

LA PRESSE MEDICALE.

April 9, 1902. (No. 29.)

1. Leprosy and Syringomyelia. H. de BRUN.

1.—de Brun reports a case of **syringomyelia**, in a woman of 24, with **leprosy**. She showed deformity of both hands and feet, with muscular weakness. The deformity was more noticeable on the right side, with extension of the first phalanges on the metacarpal bones and of the other phalanges on the phalanges above them. Both thenar and hypothenar eminences were atrophied, as were the intermetacarpal spaces. This resembled progressive muscular atrophy of the Aran-Duchenne type. The muscles of the forearms and legs were not affected and sensory disturbances were marked. Sensation to pain and temperature had disappeared in the hands and feet, yet to touch and the muscular sense sensation was normal, a sure sign of syringomyelia. Trophic troubles confirmed the diagnosis. Her menstruation became short and scanty as syringomyelia developed, though there was neither tuberculosis nor any uterine trouble. She complained of "flashes of heat," and a circular bluish-red eruption appeared on the entire body, except the hands and feet, with the syringomyelia. From these symptoms the diagnosis of leprosy was made. de Brun believes that the nervous type of leprosy may be neuritic or myelitic in character; and that syringomyelia in this case was probably a symptom of leprosy. [M. O.]

April 12, 1902. (No. 30.)

1. Epilepsy and Retrograde Amnesia. J. SEGLAS.
2. An Incised Wound of the Liver. LOUIS LOUBET.
3. Appendicitis Following the Deglutition of Foreign Bodies. VERNON.

1.—Séglas, who already reported 2 cases of **retrograde amnesia in epilepsy**, now records the case of a man of 52, a chronic alcoholic, who, following a fall, had several convulsions. He was comatose 48 hours; bit his tongue and voided urine involuntarily during the convulsions. Though he knew facts and events before 1879, he knew nothing afterward. While admitting that he was born in 1849, he said he was 51 years old and that the present year was 1879. He then said that he never could calculate correctly. He knew where he was, the day of the month and week and all that happened, and showed no physical signs. After 2 weeks he realized that the year was 1900, but still forgot events since 1879. Later he was able to recall everything. The cause of his condition was alcoholism, which brought on the epileptic attack, followed by retrograde amnesia.

[M. O.]

2.—Loubet reports the case of a man of 20, stabbed in the right hypochondrium. The wound was 2 cm. long and the small intestine protruded covered with blood. Laparotomy was performed at once and a wound 3x2 cm. found in the left lobe of the liver. This was sutured and the wound closed. The patient made a rapid recovery. [M. O.]

3.—**Foreign bodies swallowed** are but rarely the cause of **appendicitis**. Vernon reports the case of a young man who swallowed a pin 13 years before. Five years afterward he noticed attacks of pain in the right iliac fossa. Operation during one of these attacks, 13 years after having swallowed the pin, showed purulent appendicitis, the pin being found in the pus of the abscess. Recovery followed. Pericecal abscess following the deglutition of a metallic body shows 3 characteristic symptoms, a long period without symptoms, attacks resembling recurrent appendicitis and severe appendicitis, often with fatal general peritonitis. [M. O.]

April 16, 1902. (No. 31.)

1. Mediastinal Serous Pleurisy. A. CHAUFFARD.
2. Neuronophagia. ALBERT DEVAUX and
PROSPER MERKLEN.
3. Injections of Digitalin. G. ROSENTHAL.

1.—**Mediastinal serous pleurisy** consists in a serous effusion confined to the mediastinum which may collect in the anterior or posterior mediastinal space. This condition is very rare. Chauffard has seen 4 cases in the past year. There is dulness posteriorly, to the left of the spinal column, downward from the sixth dorsal vertebra. In some cases a narrow horizontal band of dulness joining this, running to the left anteriorly, at the level of the eleventh dorsal vertebra, shows diaphragmatic pleurisy also. Exploratory puncture confirmed the diagnosis. [M. O.]

2.—Microscopical examination of cerebral and spinal tissue has shown cells which have apparently destroyed neighboring cells. This process is called **neuronophagia**. The condition has been observed in almost all nervous diseases post mortem. They are most frequently found in slow toxic infections. There are 2 theories to explain this, that the leukocytes or the neuroglia cells are the phagocytes. It is most probable that after the phagocytic leukocytes are absorbed, the neuroglia cells develop neuronophagia. [M. O.]

3.—Rosenthal states that digitalin in watery solution is dangerous, causing pain, abscess formation and necrosis, and that digitalin given by hypodermic injection is better than by the mouth. He employs an oily solution of digitalin, described by Nativelle, containing 1-8 mg. to the cc. One cc. is injected daily for 4 days or 2 injections are given daily for 2 days. [M. O.]

April 19, 1902. (No. 32.)

1. The Apex-Beat of the Heart. ERNEST BARIÉ.
2. The Accidents Following the Administration of Quinine. ALFRED MARTINET.

1.—Barié first reviews the anatomy of the heart with its relations to the other thoracic viscera. Normally the apex-beat is in the fourth or fifth interspace, with slight

variations. The apex is not in direct contact with the thoracic wall, for it is covered by the anterior border of the left lung, the so-called "Luschka tongue." He describes the pathological changes about the apex in pericarditis, anemia, myocarditis, etc. Pain is usually neuropathic, pseudangina. While the impulse at the apex becomes more marked with hypertrophy, it diminishes in intensity with emphysema or pericardial effusion. Pleural or pericardial effusion may move the apex, as occurs rarely from abdominal tumors, ascites, etc. When retraction occurs at the apex, it indicates pericardial adhesions. A variable impulse is felt and sometimes a thrill. The murmurs of mitral regurgitation and stenosis, the mechanism of which is described, are easily audible when present. Functional murmurs may be faintly heard at the apex. [M. O.]

2.—**Quinine** may produce tinnitus aurium, deafness and headache. Vertigo, vomiting, vesical irritation, uterine contractions and eruptions rarely result from its use. General weakness, collapse, complete deafness or blindness have been some of the severe accidents following the administration of quinine. These symptoms are as a rule overcome by stimulants and diuretics. [M. O.]

April 23, 1902. (No. 33.)

1. Preventive Injections of Diphtheria Antitoxin.

NETTER.

2. The Milk Question. P. DESFOSSES.
3. Quinine with Other Drugs. ALFRED MARTINET.

1.—**Diphtheria antitoxin** should be given to all who came in contact with a patient developing diphtheria. Out of 546 children in the families of diphtheria patients, 157 had Klebs-Löffler bacilli in their throats. Besides, out of 30 adults examined, parents and nurses, 13 had bacilli in their throats. Fourteen cases occurred, on the other hand, in which contagion was due to convalescents who had left the hospital with bacilli in their throats. Antitoxin, prophylactically given, caused no accidents. When diphtheria follows in spite of antitoxin, the dose may have been too small, or the injection given too late. Of 502 children injected prophylactically, 13 developed diphtheria, 7 of them inside of 24 hours after the injection, the other 6 in the next 28 days. The throats of 476 of these were examined, bacilli being found in 150. A great quantity of statistics show the efficacy of antitoxin. The immunity lasted from 2 to 28 days. When diphtheria occurred in inoculated children, it was mild. It is much like vaccination in effect, only the immunity to smallpox conferred by vaccination lasts much longer. Therefore, whenever a case of diphtheria is discovered, all exposed to it should be given an injection of antidiphtheritic serum at once. [M. O.]

2.—Desfosses describes **certified milk** as prepared in Montreal, New York and Philadelphia, giving an abstract of the reports of the milk commissions of these cities, showing how clean milk can be obtained. [M. O.]

3.—**Antipyrine** given with quinine increases its solubility, acts as an analgetic and diminishes reflex excitability. They can be given in capsule, pill, enema or suppository. For neuralgia, opium or aconitine may be combined with quinine. In malaria ether or ammonia may be given beside quinine; when coma occurs, venesection also may be performed; when delirium appears, chloral; for bilious fever, ipecac and calomel; for the intermittent afebrile periods, arsenic and iron are indicated. Tannin must never be prescribed with quinine. [M. O.]

April 26, 1902. (No. 34.)

1. Autoplasty by Sliding Large Folds of Skin.

H. MORESTIN.

2. Experimental Coccidian Cancer. LOUIS BRUANDST.
3. The Antivaccinationists. MARCEL LABBE.

1.—In performing **autoplasty** for covering large wounds Morestin slides the skin, after dissecting it, leaving the subcutaneous tissue. Especially is the skin of the abdomen applicable for this purpose. Following injections of serum in a girl of 22, a large abscess resulted which

left a raw surface about the right hip, extending half way round the body. He dissected off the abdominal skin anteriorly and posteriorly above and below, pulling the portions together over the wound and fastening them by sutures, leaving a drainage-tube in place. The knee was kept flexed on the abdomen for a few days. Dressings were changed on the second day, the drain removed on the fourth and the stitches on the fifth and twelfth days. In 6 weeks she was well. A linear scar and some depression remain. [M. O.]

2.—Two kinds of *coccidia* have been found in rabbits. The poor experimental results are due to the fact that the parasite will only develop in epithelial cells, and needs some peculiarity even then. After describing his experiments, Bruandt concludes that there is a great analogy between coccidiosis and cancer in animals. [M. O.]

3.—After quoting Alphonse Karr and Verde-Delisle, antivaccinationists, Labbé speaks strongly in favor of compulsory vaccination as the only means of stamping out variola. [M. O.]

April 30, 1902. (No. 35.)

1. Lumbar Puncture Following Fracture of the Skull.

E. ROCHARD.

2. Disinfection. ALFRED MARTINET.

1.—Rochard reports the case of a child who fell 4 meters, striking his head. Though the patient had been brought into the hospital comatose, recovery followed in 10 days. Lumbar puncture showed blood in the cerebrospinal fluid. In other cases of cerebral contusion, concussion and compression, relief followed lumbar puncture. The fluid withdrawn was always bloody. He reports 2 cases in which lumbar puncture was employed as the treatment of fractured skull with success. One man had fallen 8 meters and only regained consciousness 2 days later, following the removal of 18 cc. of cerebrospinal liquid. Once again, when headache returned, 16 cc. were withdrawn. In the second case, 8 punctures were made; recovery following in both cases. [M. O.]

2.—A disinfectant must be efficacious, innocuous, automatic and inexpensive. The best is formic aldehyde. It forms an odorless compound with ammonia, which becomes useful after disinfection, for removing the smell. It also makes gelatine insoluble, forming a hard, transparent mass. It is antiseptic, diffusible and penetrating. Martinet describes the methods of employing formalin as a disinfectant in France. [M. O.]

JOURNAL DES PRATICIENS.

May 3, 1902. (16me. Année, No. 18.)

1. Gastric Ulcer, Cancer and Hypochlorhydria.

ALBERT ROBIN.

2. Trunczek's Serum. HENRI HUCHARD.

3. The Treatment of Ophthalmic Herpes Zoster.

A. TERSON.

1.—Robin reports in detail 3 cases of gastric illness. A woman of 30 complained of vomiting and pain immediately after eating. The right lobe of the liver showed hypertrophy. Robin believed the diagnosis to be gastric ulcer with perigastritis. She was put upon milk diet, with hot applications to the epigastrium, over a faintly preceptible tumor. Besides, laudanum, belladonna, ergotine, alkalies, codeine or bismuth may be indicated in these cases for relieving the pain. He uses enemata for constipation. The second case was in a young man, whose gastric juice showed fermentation, without any hydrochloric acid. The diagnosis was hypochlorhydria with gastric insufficiency. Robin gave alkalies before meals and a bitter tonic afterward. The third case was in an old man whose gastric contents showed absence of hydrochloric acid, and some fermentation. The presence of pepsin showed that this was not chronic gastritis, but gastric cancer. He has also vomited

dark blood and resistance is felt in the epigastrium. Operation was advised, pylorotomy if possible. [M. O.]

2.—Huchard states that Trunczek's serum, a modified normal salt solution, is absolutely useless. It does no harm, but no good either. [M. O.]

3.—While it is now known that ophthalmic herpes zoster occurs, it is rare. It is a nervous affection and is noted in persons who are not in good health. Terson observes 5 cases out of 1527 patients seen in 1901. In the treatment there are 3 indications, to calm the pain, to prevent ocular complications and to treat the general condition. He formerly advised opening the larger vesicles and covering them with an ointment of cocaine and lanoline. Now he uses dionine, which stops all pain and prevents eye-ball disease. Should keratitis or iritis occur, an iodoform salve and atropine are needed. In some cases internal tarsorrhaphy may become necessary. Tuberculosis, heart disease, diabetes, alcoholism and other general diseases need appropriate treatment. Mercury acts well in some cases. [M. O.]

May 10, 1902. (16me. Année, No. 19.)

1. Dyspneic Uremia in a Boy with Infantilism.

CHAUFFARD.

2. The Radical Treatment of Migraine. LIEGEOIS.

3. Mucomembranous Colitis and Appendicitis.

FELIX BERNARD.

1.—Chauffard reports the case of a boy of 16, small as a child of 12, without any pubic hair, markedly dyspneic, with a subnormal temperature. Besides, there was but scanty urination. The Widal reaction was negative and the cerebrospinal fluid, at first clear, soon became bloody. He had been very thirsty for some days and there was albuminuria. His pupils were dilated. Cyanosis and death followed. Autopsy revealed hypertrophy of the left ventricle and interstitial nephritis. There was infantilism, not associated with myxedema, but with delayed development. The nephritis, with this delay in development, was probably fetal in origin. Uremia then resulted. [M. O.]

2.—Liégeois reviews a book by Kovalevsky upon the radical treatment of migraine. He prescribes milk, vegetables and much water. He advises galvanization of the skull, warm baths, salt bathing, massage and percussion of the head during attacks. Besides, he gives sodium bromide over 2 years, 30 grains a day on an average. With this he orders strophanthus and cocaine or nuxvomica. [M. O.]

3.—Bernard believes that mucomembranous colitis is frequently the cause of appendicitis. Out of 850 cases of mucomembranous colitis, 26 have had appendicitis with operation and 32 without operation. The enteroptosis and trophic changes so common with mucomembranous colitis affect the vitality of the appendix also. It is probably somewhat affected in all cases of colitis. The same bacteria are found in the intestines and the appendix and symptoms are alike. In two thirds of the patients, most of whom were women, intestinal sand was passed with pseudomembranes. The symptoms of appendicitis may appear suddenly during colitis, when the diagnosis may be exceedingly difficult. The treatment of appendicitis will be the same as though mucomembranous colitis were not present, though operation is rarely necessary. As the colitis improves under treatment, the appendicitis generally recovers. [M. O.]

May 17, 1902. (16me. Année, No. 20.)

1. Appendicitis. JUST LUCAS-CHAMPIONNIERE.

2. Exophthalmic Goiter Simulating Phthisis.

A. PEGURIER.

3. Pneumococcic Pericarditis. HENRI HUCHARD and BERGOUIGNAN.

1.—Lucas-Championnière states that the frequency of appendicitis is due to the ingestion of too much meat and the infrequent use of purgatives. The cause is often influenza bacilli. He considers the appendix an intestinal tonsil, which is passed by the infection when appendicitis

occurs. Among the early signs of appendicitis are vomiting, fever, pain, muscular rigidity, etc. When there is no doubt, operation is advised at once. He gives neither calomel nor opium. [M. O.]

2.—Pégurier reports a case of **exophthalmic goiter** in a man of 25, taken for phthisis. After being almost drowned, he noticed loss of flesh, cough, palpitation, insomnia, dyspnea, fever, sweating, etc., all suggestive of consumption. After 2 years of treatment, he remained about the same. He has become depressed, cachectic and nervous. Upon examination a tremor was noted, the thyroid gland was somewhat enlarged and, while there was no exophthalmos, von Graefe's sign was present. No tubercle bacilli were ever found. He gave quinine hydrobromate, theobromine, milk and vegetables, rest and baths. Upon this the patient recovered in 6 months. [M. O.]

3.—Huchard and Bergouignan report the case-history of a man of 71, with cough, dyspnea and death in 2 days. The autopsy revealed **pneumococcic pericarditis** and some myocarditis. [M. O.]

May 24, 1902. (16me. Année, No. 21.)

1. Aerophagia. G. HAYEM.

1.—Hayem presented a patient with **aerophagia**, a painter, now 30 years old. At 15 he had typhoid fever with a relapse and hematemesis; at 20 gastro-enteritis, lasting a year. At 21 he suffered from lead colic; at 25 gastro-intestinal symptoms became severe, with aerophagia, pain, burning, eructation, vomiting, etc. Tympanites followed, with belching and the passage of flatus. He improved and went to work, only to have a second attack of lead colic, at 27. He took sodium bicarbonate, but always had some gastric trouble, being constipated. He returned to the hospital last year, very thin with a much distended abdomen. Examination of the gastric juice showed the hyperchlorhydria of chronic gastritis. This change from his former hyperpepsia was the result of constant alkalis. Occasionally he had paroxysms of aerophagia, becoming more frequent lately, secondary to the gastric condition. Simple aerophagia occurs in hysteria, the air swallowed causing flatulence. It may follow much medicine, such as purgatives, etc. Stout people seem especially predisposed. There may be a purely gastric or a general, gastro-intestinal condition. Eructations may occur in patients with or without tympanites. This gastroneurosis is due to modified function of the peripheral nerves, though, when eructations occur, it is probably of central origin. Hayem calls it a paraneurosis. Suggestion may do good in some cases, early. Potassium bromide, mineral waters and bathing are indicated. [M. O.]

May 31, 1902. (16me. Année, No. 22.)

1. Chloroform for Patients with Heart Disease and Accidents in Chloroform Anesthesia.

HENRI HUCHARD.

1.—Physicians and surgeons are agreed that accidents in **chloroform anesthesia** are not more frequent in patients with aortic or heart disease than in patients with other illness. Nor does cardiac or aortic disease contra-indicate chloroform as an anesthetic, if the disease is not acute and infectious, if the patient is not too feeble or if dyspnea, asystole or symptoms of pericardial symphysis have not appeared. In some cases of atheroma and cardiac disease the heart condition even improved after chloroformization. The main contra-indication to chloroform in patients with heart disease is the presence of dyspnea. This is, however, but temporary. Accidents may be due to impure chloroform, its method of administration or to errors of the anesthetist. Rarely there may be an idiosyncrasy to chloroform, more frequent in nervous patients. Death may occur under chloroform, yet may not be due to the chloro-

form. The question whether ether or chloroform is to be preferred as the anesthetic has not yet been definitely settled. Ether is to be preferred in nervous patients, with kidney disease, low arterial tension, profound anemia and depression. It is contra-indicated in pulmonary disease, dyspnea, etc. Ethyl bromide has been given first by Richelot with success, following with chloroform after anesthesia has begun. Laborde advises atropine, morphine and sparteine, hypodermically, before chloroformization. Pure chloroform, well given, to a patient prepared for it almost never kills. [M. O.]

REVUE MENSUELLE DES MALADIES DE L'ENFANCE.

April, 1902. (T. 20, No. 4.)

1. Nonsuppurative Meningitis (Meningismus, Serous Meningitis). HUTINEL.
2. The Harmlessness of Epidural Injections in the Child. CATHELIN.

1.—The symptoms formerly called pseudomeningitic have been explained: (1) By a purely dynamic disorder of the function of the meningocortical zones of toxic origin. (2) By a more or less abundant serous exudation of toxic origin which modifies the quantity and the quality of the cerebrospinal fluid. (3) By a serous exudation containing micro-organisms that are more or less attenuated in their virulence and demonstrating by their presence the existence of a local infection. The first condition is known as **meningismus**, the second as **nonbacterial serous meningitis**, the third as **bacterial serous meningitis**. In the cases of bacterial serous meningitis the condition is a true infection which does not go on to suppuration and which is capable of being cured. The infection is more or less attenuated and produces a more or less profound modification of the cerebrospinal fluid. This fluid always contains a greater proportion of albumin than normal, which is composed, not only of globulin, but also of serum albumin. Leukocytes are present in greater numbers than normal, the majority of which are lymphocytes, although sometimes there are many polymorphonuclear leukocytes present. The cryoscopic point and the hemolytic power of the fluid are modified. But in no case has the permeability of meninges to methylene blue and potassium iodide been changed. The pathogenic organisms are generally present in small numbers and are usually of the varieties that are capable of producing suppurative meningitis. Thus, the pneumococcus, the influenza bacillus, the bacillus typhosus, the staphylococcus and the streptococcus have been found in the fluid. The toxins of these organs, however, are more often the causative factors than the organisms themselves, although they may both be present. In the treatment of these conditions, according to Hutinel, the most efficacious method is with the use of warm baths of from 38° to 40° C. (100.4° to 104° F.) which should be continued from 8 to 10 minutes and repeated frequently during the day. Lumbar puncture is often indispensable. It lessens the intensity of the symptoms and seems sometimes to cut short the duration of the disease. In all cases it relieves the patient, diminishes headache, causes the contractures and coma to disappear; but its good effects do not last long, and it is often necessary to repeat the operation several times. Bleeding by the application of leeches behind the ear or of wet cups along the vertebral column are often of considerable value, although they are not held in the same favor as formerly. Cold applications to the head, laxatives, particularly calomel, potassium bromide and chloral, are also indicated in some cases. [J. M. S.]

2.—Cathelin has treated 11 cases of **incontinence of urine** with **epidural injections of salt solution** in doses of from 5 to 15 cc. until, in several cases, 35 to 40 cc. have been given. In other cases he employed a 5% solution of cocaine hydrochlorate. None of the patients treated in this manner presented any accident beyond headache and nausea, except that in one instance the child vomited. The children were not kept in bed but were treated in the dispensary of the *Hôpital Necker*. A description of the method of operation is given. [J. M. S.]

ARCHIVES DE MEDECINE DES ENFANTS.

May, 1902. Vol. V., No. 5.

1. The Action of Ozone in Pertussis.
LOUIS DELHERM.
2. Compressed Air in the Treatment of Pertussis.
CHARLES ROCAS and J. DELMAS.
3. Recovery from Pertussis upon a Carbolic Acid Spray.
L. BAUMEL.
4. Sinus Thrombosis with General Hemorrhages.
JULES COMBY.

1.—Delherm describes the necessary apparatus for the use of **ozone in pertussis**. He concludes that ozone is not a specific in whooping cough, but is a strong antispasmodic. It is only efficacious during the stage of whooping in inhalations of 10 minutes, 3 or 4 times in the 24 hours. It causes marked diminution in the number of paroxysms and seems to prevent recurrence. It decreases cyanosis and seems to aid in the amelioration of a complicating pneumonia. The time between paroxysms is often shortened, and the cough is attenuated in intensity, violence and duration. The treatment should be kept up 2 weeks at least. Ozone even in large doses is never dangerous. [M. O.]

2.—Rocas and Delmas report their results from the employment of **compressed air baths** in the treatment of **pertussis**. They were given at a gradually increasing pressure of from 10 to 40 cm. of mercury, kept up from a quarter to half an hour. Those ill under 3 weeks rapidly recovered, while those ill a week or 10 days showed a decrease in the intensity, force and frequency of the paroxysms. The cough rarely occurred when in the bath. This treatment seems to shorten the disease markedly. The earlier it is begun, the shorter is the attack. It has a good effect on bronchitis, the general condition, complications and secondary infections. It probably increases the absorption of oxygen by the blood. No accidents have ever been observed from its use, even in very young infants. [M. O.]

3.—Baumel has treated 15 cases of **pertussis** with a 25% **carbolic acid spray**, held one to 2 yards from the patient for 20 minutes once a day. This causes decreased duration of the disease, to 20 or 25 days at most. It rapidly diminishes the intensity and the number of paroxysms. [M. O.]

4.—Comby reports a case of **sinus thrombosis** in a child, 13 months old, with diarrhea, vomiting and bronchitis. General contracture followed, with deviation of the eyes and death with hyperpyrexia. The autopsy showed thrombosis of the meningeal, cerebral and ventricular veins, with hemorrhagic thrombosis of the right renal vein and of all the sinuses of the dura. Comby believes that the thrombosis may have come from an original thrombophlebitis or from the slight areas of bronchopneumonia found. [M. O.]

UNIVERSITY OF PENNSYLVANIA MEDICAL
BULLETIN.

May, 1902.

1. The Intercommunicability of Human and Bovine Tuberculosis. MAZYCK P. RAVENEL.
2. A Contribution Concerning the Clinical Significance of the Readily Eliminable Sulphur of the Urine.
DAVID L. EDSALL.
3. A Series of Twelve Articles on Medical Men Prominent in the Civil and Military Affairs of Revolutionary Times—VIII. FRANCIS R. PACKARD.
4. Notes on Ten Years' Work of the University Ear Department. B. ALEXANDER RANDALL.
5. A Case of Unusual Development of the Platysma Myoides.
DAVID RIESMAN and HORATIO C. WOOD, JR.
6. A Male Presenting Certain Female Characteristics, with Hypoplasia of the Sexual Organs.
JOSEPH SAILER.
7. On the Toxic Action of the Decomposition Products of Lecithin. HORATIO C. WOOD, JR.

1.—Ravenel contributes a paper on the **intercommunicability of human and bovine tuberculosis**. The work reported was pursued in the Laboratory of the State Live Stock Sanitary Board of Pennsylvania. For several years past Drs. Pearson, Gilliland and Ravenel have endeavored to obtain material from cases of tuberculosis in children in whom there was evidence of infection through the

alimentary tract, reasoning that, if children contracted tuberculosis through the infection of milk from diseased cattle, they would be most apt to find bacilli of the bovine type in these intestinal or mesenteric lesions. They have succeeded in isolating from the mesenteric glands of a child, the immediate cause of whose death was tuberculous meningitis, a culture which has for cattle the most intense pathogenic power. Two calves inoculated in the jugular veins and peritoneal cavity died in 29 and 27 days respectively; and a grown cow, which was inoculated both in the jugular vein and peritoneal cavity, died in 18 days. All of these animals exhibited marked symptoms from the day of inoculation. Examination of the lesions, both microscopical and macroscopical, leaves no doubt that the animals succumbed to a pure tuberculosis. This culture which was obtained from a 17-months-old child, dead from tuberculous meningitis. The case was considered by Dr. Alfred Hand, in whose practice it occurred, as the clearest case of primary intestinal tuberculosis ever seen by him. A full report of the experimental work performed by Ravenel is included in the paper, together with an exhaustive résumé and a most valuable bibliography. In summarizing, Ravenel states that the evidence at hand forces us to conclude that human and bovine tuberculosis are but slightly different manifestations of one and the same disease, and that they are intercommunicable. Bovine tuberculosis is therefore a menace to human health. We are not in a position at present to define positively the extent of this danger, but that it really exists cannot be denied. In the past there has probably been a tendency to exaggeration, but, however great this may have been, it does not now justify any attempt to belittle the risk, and it is folly to blind ourselves to it. The eradication of bovine tuberculosis is amply justifiable from a purely economical standpoint; viewed in the light of its bearing on human health it becomes a public duty. [T. L. C.]

2.—Edsall presents a contribution concerning the clinical significance of the **readily eliminable sulphur of the urine** (using the term "eliminable" in the chemical and not in the physiological sense). There are two general classes of sulphur compounds found in the urine: the sulphates and those constituting the so-called neutral sulphur, the latter meaning that portion of the sulphur which is not oxidized to SO_3 . Of these the neutral sulphur has greater interest and importance than the sulphates. One fraction of the sulphates, the aromatic sulphates, shows such close relation to putrefaction processes in the intestine and to suppuration as to be of interest in connection with those conditions. But the total amount of the sulphates is largely dependent upon the diet and shows little definite relation to any special tissue changes. The neutral sulphur, on the contrary, may be found increased in proportion to the sulphates in most conditions in which there is unduly rapid tissue destruction; and, since recent work seems to show with a fair degree of certainty that ordinary changes in the diet have little or no influence on the relative amount excreted, the discovery, that the amount of neutral sulphur is abnormally large as compared with the sulphates, indicates that tissue destruction is excessive. The only well-characterized fraction of the neutral sulphur, which is subject to accurate study and which would seem likely to show important alteration in disease, is that portion termed the readily eliminable sulphur, the fraction which is readily split off by alkalis and is then precipitable as a sulphide. Such a sulphur fraction exists in most kinds of proteid tissues; it is highly probable that, early in the process of the break-down of the proteid tissue, some of the sulphur is split off in this form. Under even normal circumstances a small amount of sulphur compounds of this variety is passed in the urine. The most striking changes in the neutral sulphur have been found in connection with disease of the liver, but, as the total neutral sulphur is increased in many conditions besides diseases of the liver, present results indicate that the study of this variety of urinary sulphur offers no certain aid in investigating disease of the liver. Edsall reports several observations demonstrating that in certain conditions, in which there was unquestionably decided excess in tissue destruction, and in some of which, at least, there was reduction in oxidative processes, the excretion of readily split-off sulphur was normal. The results of his work lead him to conclude that, with the exception of the condition cystinuria, the readily eliminable sulphur showed no altera-

tions of any consequence, even in conditions associated with violent disorders of metabolism or after a procedure which so largely disturbs metabolism as does removal of the liver. [T. L. C.]

3.—Packard contributes a paper on the military services of the medical faculty of the College of Philadelphia (University of Pennsylvania) during the Revolution. [T. L. C.]

4.—Randall contributes a note on ten years' work of the University Ear Department. The table included shows that 4,514 patients were treated. The variety of pathological conditions is stated and comment made upon certain methods of treatment followed. [T. L. C.]

7.—Wood contributes a paper on the toxic action of decomposition products of lecithin. When lecithin is decomposed, there may result either neurine or choline. Wood gives a summary of the action of choline and presents the results of a series of experiments upon neurine, which is similar in its action to choline with certain differences. On the motor system studied in frogs, Wood finds that, like the majority of the motor nerve poisons, the paralysis seems to be especially in the intramuscular terminations of the nerve. In his own experiments, although the nerve was affected before the muscle, large doses of neurine, whether injected hypodermically or applied directly to the muscles, finally caused a paralysis of the muscle substance as well as the motor nerve. Although in the complete paralytic stage the motor nerve is incapable of carrying impulses to the muscle, there seems to be a depression of the spinal centers early in the paralysis. His results agree with those of Moriggia, who has found that the sensory system is affected before the motor nerves are paralyzed. The bloodpressure curve of neurine resembles that of choline, but is not identical with it. When neurine hydrochloride is injected intravenously, there is generally a slight primary fall of the pressure (sometimes lacking) followed by a distinct rise which may be very marked or entirely absent. The elevation of the bloodpressure rarely lasts over 5 minutes and then returns to normal. Slowing of the pulse was present in every experiment with one exception and is probably due to the stimulation of the peripheral ends of the pneumogastric. The changes in the pulse-rate also lasted about 5 minutes. The death of the animal, under an injection of neurine, was due in every case to respiratory failure. If respiration was maintained artificially, several times the lethal dose of neurine could be given without permanent effects upon the circulation. Large doses have some action upon the vasomotor center. [T. L. C.]

THE SCOTTISH MEDICAL AND SURGICAL JOURNAL.

April, 1902. (Vol. X, No. 4.)

1. On the Value of Abdominal Section. J. CRAWFORD RENTON.
2. On the Co-ordination of Medical Research in Edinburgh. D. NOEL PATON.
3. Note on Status Epilepticus. A. R. URQUHART.
4. Observations on cases of Pernicious Anemia. ALEXANDER GOODALL.

1.—Renton gives the following as conditions which most frequently call for surgical interference and which are invariably accompanied by pain: (1) Dilatation of the stomach due to pyloric obstruction, either of a simple or malignant form; (2) hemorrhage from gastric ulcer; (3) rupture of a gastric ulcer; (4) in some cases of great hyperacidity of the stomach gastro-enterostomy has been found of great value; (5) in gall-stones accompanied with pain and abscess of the liver operation has given very satisfactory results; (6) in acute obstruction of the bowels, whether due to intussusception, bands forming from old inflammation or obstruction induced by new growth in the intestine, large or small; (7) appendicitis; (a) in catarrhal ones with no distinct lump or swelling around the appendix; (b) appendicitis with a swelling which may entirely disappear either by absorption or by formation of a local abscess, which may require an operation, or may burst into one of the viscera, such as the bowel or bladder or, more seriously, into the free abdominal cavity; (c) acute

perforative appendicitis, which leads to general peritonitis and the formation of abscess in the general peritoneal cavity; (8) removal of the ovaries in cirrhotic disease and chronic inflammatory affections, accompanied or not by suppuration of tubes; (9) removal of the uterus, and (10) in wounds or rupture of the bladder. [T. M. T.]

3.—Urquhart quotes Sir W. R. Gowers' statement that status epilepticus seldom yields to any drug except chloroform, morphine or hyoscine. He emphasizes the necessity for caution in the administration of morphine in these circumstances. He believes that hyoscine is just as dangerous. He has used amyl nitrite with no benefit and has given oxygen without any apparent prolongation of life. It is well known that the treatment of advanced epilepsy is unsatisfactory. The absolute degeneration of the cortical cells and the production of toxins are, the author believes, unalterable by present day methods. The bromides are absolutely useless in status epilepticus and in every case they should be discontinued from time to time, especially when deterioration of mental energy is observable, for one has to determine how far obscuration of mind is due to drugs. [T. M. T.]

4.—Goodall differentiates between pernicious anemia and gastric cancer as follows: (1) The reduction of red cells is greater in pernicious anemia than in cancer; (2) the reduction of hemoglobin relative to corpuscles is not so great in pernicious anemia as in cancer; (3) the average size of red cells is greater and polychromatophilia is marked in pernicious anemia. In cancer the cells are small and may show fissures, but not so marked polychromatophilia; (4) megaloblasts are present generally in greater numbers than normoblasts in pernicious anemia; their mere presence is of great importance, as, although normoblasts are common, megaloblasts occur with very great rarity in cancer; (5) in the absence of complication there is no leukocytosis, and in the absence of fever there is lymphocytosis in pernicious anemia. In cancer leukocytosis is the rule; lymphocytosis does not occur. The author mentions 4 groups of cases and in each group the blood characteristics have something in common: (1) Acute favorable cases; (2) the chronic cases; (3) the subacute cases; (4) acute unfavorable cases. The treatment should be based on our knowledge of the symptoms and the information to be gained by the blood examination, rather than on our belief in any one of the various views of the pathology of the disease. Whatever view of the pathology we adopt, our main efforts as regard treatment must be directed to stimulate hemogenesis. This can be done: (a) When the color index is high, say above .8, arsenic alone should be employed in very gradually increasing doses. Iron will probably do harm; (b) when the color index is lower than .8, iron and arsenic should be given together. [T. M. T.]

ARCHIV FÜR EXPERIMENTELLE PATHOLOGIE UND PHARMAKOLOGIE.

Bd. XLVII, 5 u. 6.

1. Studies of the Paralytic Form of Poisoning by Mussels. THESEN.
2. The Action of the Substances of the Digitalis Group With Exocardial Application. BENEDICENTI.
3. The Chemical Constitution of Morphine in Its Relation to its action. VAHLEN.
4. On the Decomposition of Potassium Iodide in the Organism by Nitrites. STEPANOW.
5. A Method for the Qualitative Demonstration of Pentoses in the Urine, With the Exclusion of Glycuronic Acid. V. ALFTHAN.
6. Two New Laboratory Apparatus. HANS MEYER.
7. The Behavior of Adenine and Guanine in the Animal Organism. SCHITTENHELM.
8. The Demonstration of the Decomposition of Chloroform in the Gas Light. GERLINGER.

1.—See editorial Philadelphia Medical Journal, August 5, 1902, page 136.

2.—The conclusions reached are that the effects of sub-

stances of the digitalis group are different when applied endocardially from those obtained by exocardial application. The effect which they produce by external application is not inhibitive. The results indicate certain differences in the arrangement of the inner and outer muscle fibers of the heart. What these differences are cannot yet be stated. [D. L. E.]

3.—Vahlen has attempted to isolate pure some of the active substances in the mother-substance morphiganine, which is the mother-substance of those substances which have a morphine-like action. Chloride of zinc and sulphuric acid were tried, but no pure products were obtained. Substances with a morphine-like action were obtained, but not pure; undoubtedly the purification of these substances would be very difficult. The author, however, isolated **epiosine**, through the action of sodium acetate, absolute alcohol and methylamine, with heating. He finds that in **animals and human beings it has a morphine-like action**, and produces a quiet sleep, even when pain, cough and the like, are present. He recommends its use in human beings. No unfavorable collateral effects were observed. [D. L. E.]

4.—Stepanow refers to the various theories concerning the method of the breaking-up of potassium iodide in the organism, with the setting-free of iodine. He has suggested that nitrites might be active in this reduction, because they have been found in the saliva and in the pancreatic secretion. He has investigated the presence of nitrites in a series of tissues, and finds them free in the white matter of the brain, in the lung tissue, in the bronchi, in the parotid, in the small intestine, in the medullary substance of the kidney, in the suprarenal glands, in the testicles and in the lymphnodes, they were found absent in the gray matter of the brain, the liver, the stomach, the spleen, the brown substance of the kidney, the muscles and the blood. In one case he found them present in the liver, but this was probably due to the large amount of nitrates which had been ingested. The liver has a marked reducing power. The animals had been killed with potassium cyanide, and this would fix the nitrites produced before the injection; hence, any nitrites found might be considered to have been produced during life. The author believes, therefore that nitrites with carbonic acid are active in the decomposition of potassium iodide, although other agents possibly also act. [D. L. E.]

5.—Alfthan found, in some investigations concerning the animal gum of the urine (by the benzoyl chloride method), that, after saponifying the esters of the unfermented urine, he obtained a positive pentose reaction, both in the urine from cases of diabetes insipidus and that from normal persons. The reaction did not occur in the fermented urine. He then made some studies after the administration of compounds forming glycuronates and found that, by saponifying these esters with sodium ethylate, the glycuronic acid formed sodium salts, which are insoluble in alcohol, none of it going into solution, and, hence, not disturbing the reaction. He therefore recommends that the following method be carried out: **The esters from 500 cc. of urine (benzoyl-chloride method) are saponified with sodium ethylate and filtered. The filtrate is tested with phloroglucin or orcin and HCl. If the reaction is positive, we may state definitely that pentoses and not glycuronic acid produced it.** [D. L. E.]

6.—Meyer describes an apparatus for artificial respiration and also one for obtaining the juice of tissues. [D.L.E.]

7.—Schittenhelm makes the interesting statement that, contrary to the results obtained by Minkowski, in dogs he found that **adenine might be administered to rabbits in large doses, without producing any evident toxic effects during life** and that 25% of the adenine administered was obtained from the urine. The kidneys, however, showed very much the same changes that Minkowski had described in dogs, chiefly consisting in the decomposition of large numbers of crystals that looked like ammonium urate. The author also reports some results on a dog, in which there was no increase in the uric acid in the urine, but a marked deposition of uric acid and ammonium urate in the kidneys. Guanine has been administered to animals and man, with no increase in the uric acid, (excepting in the case of one man, and that was slight). Schittenhelm administered it to a rabbit, and found no increase in the uric acid or purine bases and no pathological changes of any kind in the kidney. [D. L. E.]

8.—Considered editorially.

WIENER KLINISCHE WOCHENSCHRIFT.

June 5, 1902. (XV. Jahrgang, No. 23.)

1. Hemorrhage into the Corpus Callosum.
MORIZ INFELD.
2. Nervous Symptoms in Typhoid Fever.
C. HOEDLMOSER.
3. The Hot Springs at Töplitz in Krain, Austria.
E. LUDWIG.
4. The Occurrence of Growths in Teratomata Like Chorion Epithelioma and Grapes.
FRIEDRICH SCHLAGENHAUFER.

1.—Infeld gives the meager history of a case of **hemorrhage into the corpus callosum** in a girl of 19, who only became ill 4½ hours before death. The autopsy revealed the fact that death had resulted from hemorrhage into the ventricles, showing a lymphatic constitution. The entire corpus collosum showed hemorrhagic destruction. Her convulsions closely resembled those common to hysteria. Hysterical symptoms are composed of 2 components, the psychical and the somatic. [M. O.]

2.—Headache and sleeplessness are common early in typhoid. Then somnolence follows, with delirium, subsultus, etc., but convulsions occur rarely. Hödlmoser reports a case of typhoid in a man of 40, with **epileptiform convulsions**. The Widal reaction was positive and the patient recovered. There was no albuminuria at any time. He believes that the typhoid intoxication caused organic changes in the temperature centers and this irritation resulted in convulsions. An increase in the pressure of the cerebrospinal fluid may cause marked nervous symptoms. Bathing had an excellent effect. [M. O.]

3.—Ludwig describes **Töplitz**, which consists of but 60 houses about the **hot springs**, its history, its waters, etc. The temperature of the water is 36.2°C. It is alkaline, containing mainly calcium and magnesium carbonates. The cure is indicated whenever warm alkaline waters are advised, for drinking or bathing. [M. O.]

4.—Schlagenhauser first describes a case of sarcoma of the testicle from the literature, and another observed by him in a man of 43. Histological examination showed both cases to be **teratomata of the testicle**, containing chorion epithelioma-like growths. There were also pulmonary metastases. This tissue had probably grown from the epithelium covering the chorionic villi or their rudiments, thus explaining its resemblance to the typical chorion epithelioma found in women. These researches show that the tumors are neither sarcomata nor carcinomata, but remnants of the epithelial covering of the chorion. Such teratomata, while generally found in the ovary or testicle, may appear in other localities. He then describes 5 cases of teratomata containing grape-like growths. Histological examination showed that the primary tumor in the bloodvessels of the testicle was a teratoma, containing grape-like growths resembling hydatid cysts, with pulmonary metastases in which chorionic epithelioma-like tumor formation was noted. The fetal membranes or their rudiments caused intravascular, grape-like degeneration. Thus both conditions are explained embryologically. These tumors are most malignant. Certain villi, with chorionic epithelium, probably become detached and perverted, resulting eventually in such teratomata. The cause is not pregnancy itself, but rather the embryonic material found during pregnancy. [M. O.]

A Teratoma of the Greater Omentum. Bernard Engländer describes a case of teratoma of the greater omentum in a young girl of 18, which was removed by laparotomy. His detailed microscopical examination follows. The tumor showed embryonal, endochondral ossification. It was atypical in structure, probably derived both from mesoderm and entoderm. The theory of the subject is fully reviewed. (*Centralblatt für allgemeine Pathologie*, June 20, 1902.) [M. O.]

Special Articles.

THE DEATH OF VIRCHOW.

By MAURICE OSTHEIMER, M. D.,
of Philadelphia.

Rudolf Virchow, the founder of modern pathology, died at 2 o'clock in the afternoon of September 5, 1902, aged almost 81 years. Born October 13, 1821, in Schievelbein, Pomerania, he attended the Gymnasium in Köslin and the Friedrich-Wilhelm Institut, graduating from the University of Berlin in 1843, his inaugural dissertation being entitled "*De rheumate praesertim corneae.*"

In 1845 he became assistant prosecutor to Robert Froriep in the Charité Hospital, succeeding him as prosecutor in 1846, in which position he controlled the whole anatomical material of that great hospital. In 1847, when he became a regular lecturer in the University, he founded, with Benno Reinhardt, the *Archiv für pathologische Anatomie und Physiologie und für klinische Medizin*, which now bears his name, the leading pathological journal of the world. In 1848 the Government sent him to Upper Silesia to study the epidemic of typhus fever due to famine among the handloom weavers, an excellent account of which he published on his return, remarkable, both from the scientific and political points of view, for its insight and comprehensiveness.

In June, 1848, with Leubuscher, he edited a paper, both medical and political, called *Medizinische Reform*. Even at that time, though but 27 years of age, he was offered membership in the Prussian Lower House, which position, however, he could not accept on account of his youth. He was deprived of his prosecutorship in 1849, on account of his political affiliations. The next year he was married. Soon afterward he was called to Würzburg as pro-

fessor of pathological anatomy, through the efforts of Scanzoni. While in Würzburg he assisted in editing the *Verhandlungen der physikalisch-medizinischen Gesellschaft*. In 1856 he returned to Berlin as professor of pathological anatomy, general pathology and therapeutics, and director of the newly erected Pathological Institute. Since 1852, when Reinhardt died, he has been the sole editor of the *Archiv*. In 1852 he studied the misery and disease in the Spessart, again making a memorable report. In that year he also began the publication of the *Canstatt Jahresberichte über die Fortschritte der Medizin*, with Eisenmann and Scherer. In 1867 this

was changed to *Jahresbericht über die Leistungen und Fortschritte in der Medizin*, edited by Virchow and August Hirsch. Since the death of the latter, in 1894, Posner has filled his place. From 1854 to 1862 Virchow edited his *Handbuch der speciellen Pathologie und Therapie*, in 3 volumes, and, in 1866, with Franz von Holtzendorff, he founded the *Sammlung gemeinverständlicher, wissenschaftlicher Vorträge*.

In 1859 he was summoned to the west coast of Norway by the Norwegian Government to study leprosy. In the same year he became a member of the Berlin Municipal Council, a position which he held over 42 years, and, in 1862, of the Prussian Lower House, where he was one of the founders and leaders of the progressive radical

party, antagonizing the imperial government to such an extent that he was challenged to fight a duel by Bismarck. From 1880 to 1893 he was a member of the German Reichstag, always a true and faithful exponent of the people. In 1866 he became a director of the "*Berliner Hilfsverein für die Armee im Felde*," and, in 1870-1871, by his own personal exertions, he organized the first Prussian ambulance corps and erected the hospital on the Tempelhof Field, Berlin. His influence was also noticeable in the erection of the new Friedrichs-



RUDOLF VIRCHOW.

hain Hospital, the Dalldorf Insane Asylum and the Municipal Hospital in Moabit, in the disposal of the sewerage of Berlin by its canal system, the new regulations concerning animal disease, slaughter-houses, fisheries, etc. He was one of the founders and president of the German and Berlin Anthropological, Ethnological, Archæological and Historical Societies. In 1879 he visited Greece and Asia Minor, gaining a practical knowledge of hieroglyphics, and writing *Beiträge zur Landeskunde in Troas* in 1879, and *Alttrajanische Gräber und Schädel* in 1882. In 1887 his political views were the cause of his being defeated for the rectorate of Berlin University, though he was reinstated in 1892. In 1891 he celebrated his seventieth birthday, receiving a gold medal, among many other honors. In 1893 he celebrated his fiftieth anniversary as a physician, visiting England the same year. He delivered the Croonian lecture in London, before the Royal Society, upon the position of pathology in the biological studies, in 1898. In England, too, he received the degree of D. C. L., and later the Copley medal. In 1896 he was made commander of the legion of honor. He made the opening address at the Congress of German Naturalists, in 1886, at the International Congress of Naturalists, in 1890, in Berlin, and at the meeting held for founding the Düsseldorf Pathological Society, in 1897. At the international medical congress, held in Rome in 1894; in Moscow, in 1897; and in Paris, in 1900, he delivered addresses in pathology. In 1897 he celebrated the fiftieth anniversary of his entrance into academic life, and, in 1899, his fiftieth year as a professor. On June 27, 1899, he dedicated the newly erected Pathological Museum, to which institution he gave his own collection of 23,066 preparations, specimens gathered by him ever since 1856. He celebrated his golden wedding August 24, 1900, receiving congratulations again from every part of the world. Finally, in October, 1901, physicians all over the civilized world met to celebrate the eightieth birthday of Professor Virchow. At the great ceremonies, held in his honor in Berlin, celebrated pathologists from the entire world were present. The medical men of Germany presented him with the sum of \$12,500, to increase the endowment of the Virchow Institute; the German Emperor gave him the great gold medal for science, possessed by no other living physician; the King of Italy sent him another gold medal; honorary degrees were conferred upon him by German universities, and several medical societies made him an honorary member. All the German medical journals published special numbers in his honor. And the new municipal hospital erected in Berlin last year has been called the Virchow Krankenhaus after him. His position as president of the Berlin Medical Society he held up to several months ago, when he resigned on account of ill health, being succeeded by Professor Waldeyer. January 15, 1902, Dr. Virchow fell, while alighting from a street car, and fractured his right femur. He recovered slowly, but improved steadily until six weeks ago. He was then spending the summer in Harzburg, up in the Harz mountains. One day he stumbled, and since then his condition has failed. On August 31 he

was removed to Berlin, where death occurred five days later.

No physician now living has attained a reputation equal to that held by Dr. Virchow. For his efforts, embracing, as they did, all the branches of medicine and the allied sciences, showed his interest in all subjects. There was nothing too small to attract his attention. He excelled as a scientist, politician, municipal reformer, medical discoverer, thinker and writer of the first order. In this respect perhaps no one resembled him so much as the late Dr. William Pepper. His fame in medicine rests mainly upon his work in the realm of pathology. Jacobi says (*Medical Record*, October 22, 1881) that the emancipation of pathology, its rise into the number of the independent sciences, with, in its turn, its fertilization of anatomy and physiology, dates from 1847, when Virchow wrote on the standpoints in scientific medicine, in the first volume of his *Archiv*. Virchow took no credit for having discovered the scientific methods of medical research, believing that the world would have found them in time. In the fourth volume of his *Archiv* he published the introduction to his cellular pathology, his great work, and a later contribution appeared in the eighth volume. Cellular pathology, "omnis cellula ex cellula," is not a system but a principle. He discovered the self-propagating power of the animal cell, and the results therefrom have been inestimably valuable. The basis of this work is his statement that "man is a cell state, in which every cell represents citizenship, the tissues, muscles and bones representing different layers of society. Disease is merely a conflict in this state between the citizens, caused by changes wrought by outside action." His three volumes on morbid tumors (1863-1867) are a work which might have filled the lifetime of a great student and thorough pathologist. The term mycosis was discovered and first used by Virchow. His works, over 125 large volumes and a thousand pamphlets, give the history of medicine and anthropology during the past 60 years.

Virchow first became widely known in America by the translation of his cellular pathology, made by Frank Chane, published in over seven editions. He has been popular in the United States since his friendly criticism of our sanitary achievements during the Civil War, which amounted to praise. And, last year, in honor of his eightieth birthday, banquets were held in a number of American cities, among which were Milwaukee, St. Louis and New York. Though of humble stock, no name known to the German-speaking world was more venerated than that of Virchow. His many-sided supremacy has long been acknowledged in Germany. He never practised medicine to any extent, but was always a teacher. It was a well-known fact that he always reached his lectures late. He was a great traveler and an accomplished linguist. He opposed the theories of Haeckel and Koch, but was rather a forerunner than an opponent of Darwinism, for he devoted much time to spreading the knowledge of nature among the poor. He could not believe in any hypothesis; what he could credit had to be proved. That he held a unique, international position was shown by Lord Lister, who, presiding

at a banquet in London in 1898, addressed Virchow as "our beloved master, the father of pathology."

As Professor Virchow was an honorary citizen of Berlin, the city magistrates decided to accord him a public funeral. The procession started from the Town Hall, September 9, at 11 A. M. Eulogies were delivered by the Burgomaster of Berlin and Professor Waldeyer, of the Medical Department of the University of Berlin. The expenses of the funeral were borne by the municipality. Professor Virchow is survived by six children, three sons and three daughters. Two of his sons are physicians, and two of his daughters married physicians. The latest reports from Berlin state that, owing to his great age, his fractured thigh never healed. As long as his strength lasted, Professor Virchow himself made daily observations of the wound and demonstrated to the attending physicians, by means of radiographs which he had had made, the nature of the fracture. A vast number of telegrams of sympathy, including despatches from all parts of the world, from the Kaiser and all the members of the Cabinet have been received by the Virchow family.

VIRCHOW.

A TRIBUTE.

By WILLIAM H. WELCH, M. D.,
of Baltimore, Md.

Rudolf Virchow, the great master, is gone. His death, although not unexpected, comes as a shock to the world of medicine and to the world at large. It is hard to realize what a void is left by his departure, how much poorer the world, so vastly enriched by the fruits of his work, is to-day by the removal of a man of character so noble, of intellect so great, of achievement so high and varied.

Virchow, the chief founder of modern scientific medicine, the highest glory in medicine of Germany and of our age, will rank for all mankind and for all time to come as one of the greatest figures in science. Important as was the reformatory influence upon medicine of the discoveries and work of the few leaders whose names are worthy to be placed beside his, such as Galen, Vesalius, Harvey, Hunter and Pasteur, it may safely be said that the establishment by Virchow of the principles of cellular pathology marked the greatest advance which scientific medicine had made since its beginning. Upon this foundation, embedded in the solid rock of truth, medicine has built for nearly two generations, and we may confidently believe that upon the same foundation future generations will continue to build with ever increasing benefit to science and to humanity. Investigation will penetrate deeper and deeper into the structure and the life of cells, but there is no reason to believe that ultimate analysis will ever be able to refer the primary seats of disease to any independent, vital units outside of the cells.

With what untiring industry, keen intelligence and skill and just discernment of the truth has Virchow cultivated for over half a century the new fields opened up by his greatest discovery, and how immeasurably has he enriched pathology in all directions by his contributions! Look up the de-

velopment of knowledge concerning almost any subject in pathology, and one is almost certain to encounter the name of Virchow, and, if he is not the discoverer, it is likely that he has left the subject so illuminated that we mark the knowledge of it as that belonging to the era before Virchow and that to the era after Virchow.

Virchow was an almost universal genius. The sanitary and sociological importance of the work which first drew public attention to the young physician—his report upon the epidemic of typhus fever in Upper Silesia—is well known. Here was exhibited strikingly the independent and undaunted spirit of the man who would allow no political considerations to stand in the way of truth and liberty and humanity. His services in the cause of public, especially municipal, sanitation are everywhere recognized as of the highest importance. The obligation to devote skilled knowledge to the welfare of town and state is one of the most impressive lessons of his useful civic life, as was so well emphasized by his friend, Dr. Jacobi, in his stirring remarks upon Virchow as citizen and statesman at the New York dinner in celebration of his eightieth birthday, last October.

It is simply amazing that, with his fruitful and uninterrupted activity as teacher, investigator and author in pathology, with his editorial labors, with his interest in medical societies, with his never neglected duties as an influential member of the municipal council of Berlin and of the imperial parliament, Virchow found time for work in anthropology, ethnology and archeology, only second in extent and importance to that in pathology.

The enthusiastic and inspiring celebration of his eightieth birthday last autumn afforded opportunity for an estimation by many competent hands of the significance and value of Virchow's manifold activities. The warm tributes then so gladly paid by the scientific and medical world are still fresh in our minds, and we can but rejoice that their recipient lived to accept a homage which no conqueror in war ever merited as did our hero of science, leader, as he was, in the contest for the preservation and not for the destruction of human life.

America mourns with Germany and with all other civilized countries in the loss of this great benefactor of his race, who belongs to all time and to all the world. But more, we rejoice in the rich and abundant fruits of his long and well-rounded life. The fame of Virchow is imperishable, and his name will be held in all ages and by all peoples in grateful affection and honor.

THE ENDURANCE OF VIRCHOW'S WORK.

By ALFRED STENGEL, M. D.,

of Philadelphia.

Professor of Clinical Medicine in the University of Pennsylvania.

It is always difficult for contemporaries to form a just estimate of the work of a prominent man, and as many instances of grossly exaggerated overestimation as of unrecognized talent might be recalled. Errors of this kind, however, are far more likely to be made in the case of artists, writers, musicians, metaphysicians or philosophers; in short, in the case

of those whose work is based on invention or, to some extent, upon speculation, and to a great degree, also, dependent for its recognition on peculiar originality or conformity with accepted standards of taste or thought. Scientists, or those who have passed as such, have also been overestimated or undervalued by their confrères, and much oftener by the world at large, but such misjudgments are the less likely to occur in proportion as the reputation of the individuals is established on scientific contributions rather than on deductions from the work of others. In the case of Virchow, misjudgment is unlikely, for his work has covered so long a period of time, and that, too, during the era of the greatest scientific activity in the world's history, that the opinion of to-day can hardly be regarded as that of his contemporaries in a strict sense. And in spite of the phenomenal advances in science during the last fifty years, most of Virchow's earlier and epoch-making work still remains unshaken and authoritative. Looking far into the future, one may form vague conceptions of new directions in which medical science may extend, and of new systems of pathology based upon entirely new principles involving a more intimate knowledge of physiological, cellular and organic processes and chemical activities; but, whatever advance is made in such directions, the foundations of cellular pathology, laid by Virchow, will still remain the firm basis upon which subsequent structures have been raised.

Virchow's name will forever rank among the master minds in the history of medicine, and unquestionably as the greatest genius among the medical men of the nineteenth century. When he first appeared upon the scene, the contributions of pathologists of the eighteenth century and of the beginning of the nineteenth century had begun the work of undermining the humoralistic theories that had endured from the time of Galen; but no one had had the comprehensive grasp of details nor the genius to construct a new system, based upon facts instead of theories, and to utilize for this purpose the recent discoveries of the microscope. His Cellular Pathology at once disposed of old systems and introduced a new era. It was the product of one who combined a great capacity for accumulating facts with a rare ability at generalization. His constructive genius made it possible for him to utilize his unequalled experience and knowledge of details. In both directions he was as nearly the equal of Darwin as any man in history.

It is needless here to enter upon a discussion of the scope or merits of his system of cellular pathology or of the subsidiary classifications that have grown out of it, but it is worth while noting that the accuracy of his views has been so universally acknowledged, and the system itself so embodied in every branch of modern medicine, that one now finds it difficult to realize how revolutionary his doctrines were, how subversive of all that had gone before.

The student of Virchow's life would, however, fall short of a just appreciation of his contributions to medicine if he regarded only his personal publications. No man has exercised an influence upon the workers in any branch of science greater than did Virchow upon medical men. His own method

taught accuracy of observation and logical reasoning, and was a powerful factor to set aside prevailing empiricism. In the earlier part of his career he was somewhat identified as a writer and editor with what may be called strictly practical medicine, and here his powerful influence was felt in the direction of more careful study of the natural history of disease and of methods of treatment based upon scientific facts.

One might enumerate subjects in which the individual work of Virchow is conspicuous, but so encyclopedic was his knowledge and so varied and numerous his contributions, that it may be truthfully said that there is scarcely a page in medicine or surgery that is not properly illuminated by his name. One marvels at the unexampled activity of the man, especially when one realizes that in political work and in archeology his labors were scarcely less arduous, and, particularly in archeology, scarcely less conspicuous. Notwithstanding the long continuance of his work and the multiplicity of his interests, he retained to the last a remembrance of isolated facts or cases learned or observed long years before that was astounding. The writer recalls an instance when he spoke without consultation of records of a specimen, afterward found in his collection, that he prepared fifty years before and details of which he recalled as clearly as if the experience was one of the day before.

It has sometimes been thought that the discoveries of the last ten years have tended to disturb the system of cellular pathology in favor of a new system of humoral pathology. The rapid succession of discoveries in the line of toxins, antitoxins, lysogenic bodies, and the like, does give some color to such a view; though with larger knowledge of the sources and activities of such bodies we find ourselves still closely bound to the conception of a cellular unit and as much as ever appreciative of the important position of Virchow's views.

PERSONAL REMINISCENCES OF VIRCHOW.

By JOSEPH McFARLAND, M. D.,
of Philadelphia.

Professor of Pathology in the Medico-Chirurgical College.

Contact with great men produces lasting impressions. Such impressions are, however, not always overwhelming, for the truly great have less the impression of greatness than of goodness, kindness, carefulness and thoroughness.

So from a few months of association with Rudolf Virchow during the summer of 1895, I brought away certain cherished impressions of the grand old man.

Virchow looked and acted less like a great man than almost any I have ever known. He had little place in his own thoughts. He was small of stature and very broad of shoulder, so that he was almost stunted in physical appearance. His face was Semitic rather than Teutonic. One would have passed him on the street without a comment.

When speaking, his face bore an expression of benignity and alertness. His conversation was somewhat rambling and his delivery as a lecturer extremely monotonous and tiresome.

He was ever the student's friend and always had time to say a word to those working under his direc-

tion—a word full of suggestion and encouragement. Kindness was one of his chief attributes.

He paid the most minute attention to what one might regard as unimportant details, and no doubt much of his success in life depended upon this care. A friend with whom I once walked through the Institute remarked that a great man should sit calmly before a table covered with jars and waste his time pasting labels upon them. It was, however, in all probability, one of those details the importance of which he grasped, and which helped to make the museum of the Institute great. How much depends upon the recognition of the importance of trifles!

Correct and careful himself, he required those with whom he came in contact to be so. I have seen him stop in the midst of his lecture to caution a student not to tilt a jar lest he injure the specimen it contained.

His lectures were excellent in substance but tiresome from the monotony of his delivery. There was no eloquence, no dramatic effect. Inattention was, however, intolerable to him. "Herr, sind Sie krank?" he one day asked a student who sat before him, his head resting upon his hands, his eyes closed and his thoughts wandering far from the subject at hand.

His perceptions were very keen. Things seemed plain to him. He classified facts readily and saw the subtle connections between related phenomena. "Professor," said a student, "I wish to do some experiments on inflammation." "Inflammation," said the old man, his eyes kindling, "inflammation is only a conception, an aggregation of phenomena: You cannot experiment on inflammation."

His keen appreciation of the value of the results derived from careful experimentation, and his own industry, perseverance and patience gave him a horror of unfinished work.

I was forced to leave Berlin in the midst of a research begun in his laboratory and under his direction. As I made my farewell visit, the old man grasped me by the hand, but though his greeting was friendly, he gave me the impression that I should not regret my departure because of the severed acquaintances so much as because my "Arbeit" was not finished. Since then I have always had a disagreeable feeling when I had unfinished work on hand.

Brief though my acquaintance was, I remember Virchow as a broad-minded, whole-souled man, generous toward all, possessed of a remarkable keenness of intelligence, careful attention to minutiae, unlimited patience, determined perseverance and a vast capacity for work.

The Curability of Tuberculous Meningitis.—In an interesting review of the rare cases of tuberculous meningitis in which recovery occurred, Paul Sépet states that in such cases the process is generally well localized. General tuberculous meningitis is always fatal. He reports 2 cases in children, aged 6 years, with tubercular family history and one tubercular parent in each case. Lumbar puncture was only performed in one case. While no bacteria were found, many lymphocytes were present. Both children had typical symptoms and recovered. The second patient died of phthisis later. Meningeal tubercles or other well circumscribed tuberculous meningitis is therefore curable. (*La Médecine Moderne*, July 9, 1902.) [M. O.]

Original Articles.

TUMOR OF THE PHARYNX; AN ACCESSORY THYROID GLAND. REMOVAL FOLLOWED BY MYXEDEMA.*

By E. L. SHURLY, M. D.,

of Detroit, Mich.

The following case would seem to be of interest, not only on account of its comparative rarity, but because such a case raises questions relating to the classification, histological nature and congenital development of accessory thyroid glands, and also whether or not veritable neoplasms composed of thyroid glandular tissue or degenerate accessory thyroid glands ever occur. These questions, as discussed from time to time, principally by French, German and British writers, may be epitomized by the following interrogatory statements: Are all accessory thyroids—in whatever situation found—congenital abnormalities and the result of accidental deflection from embryological lines, or are they catagenetic manifestations in the embryological evolution of lymphatic glands? Again, is the typical histological construction—so frequently found—sufficient to warrant the conclusion that they are not neoplasms, or, lastly, may not these cases embrace both normal and abnormal histological features? Of course, the settlement of these questions will depend upon the further researches of embryologists and histologists, aided by the accumulated experience of clinical observation. But the paramount practical problem involved relates to the question whether or not medical art should interfere with these abnormalities by removing them, when life is not threatened, and, if so, under what circumstances?

For instance, if an apparent tumor is really an accessory thyroid gland, secreting and furnishing to the system its peculiar colloid substance, and is thus so necessarily supplemental in performing this function that cachexia strumipriva will supervene upon its removal, the question at once arises: Should it be removed under any circumstance relating to its anatomical situation, *unless* its presence is a menace to life? The answer to this question would undoubtedly be negative—provided there was presented any evidence that the thyroid gland proper was atrophied or altered beyond its capacity to perform its function. Here, then, the point arises: How are we to know always whether the thyroid function in a given case depends wholly or almost wholly upon the offending thyro-neoplasm?

Then, too, aside from fibroid, fatty or other purely structural changes, there are to be considered chemical and biological alterations of the colloid matter—which Hutchinson has especially called attention to—in relation to its chemical constituents, such as iodothyron, iodine, xanthin, hypoxanthin, inosit, creatin, sarcolactic acid, and the molecular changes of its protoplasm, which may render it toxic

*Read at the meeting of the American Laryngological Association, Boston, May 26, 27 and 28, 1902.

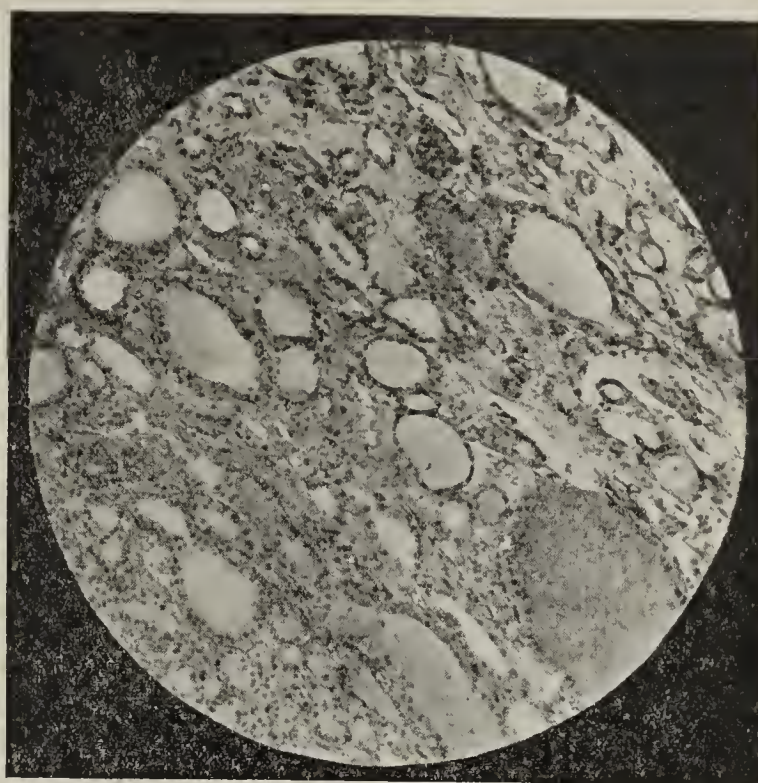
to the very organism in which it is formed—as illustrated by cases reported of death following surgical operations in which the thyroid gland had been accidentally cut, so that a little of its contained secretion directly entered open veins or lymphvessels in the wound.

Berry, Jannesco and other authors say that “a distinction should be made between true accessory thyroids of congenital origin and the encapsulated masses of thyroid tissue which have been extended from the gland.” Such tumors being analogous to the pedunculated subperitoneal tumors (fibromyomata) which have been extruded from the uterus. This practical aspect, it seems to me, is brought to view by the clinical history of the following case, which came under my observation:

Miss A. M., aet. 16. In boarding school. Of excellent family history. Generally well, excepting for frequent complaint of feeling tired. Of moderate pale appearance, but always plump and apparently well-nourished, with good voice, but articulation which had been a little “thick” for the last two years. She had been annoyed by progressive desire to swallow and a little difficulty of deglutition while eating, although never anything like obstruction to the passage of the bolus, coincidentally, she has of late been troubled with extra secretion of pharyngeal mucus, causing frequent acts of expectoration. There is no history of menstrual, renal or gastro-intestinal disturbance. She was taken to Dr. D. M. Campbell last September for treatment for supposed pharyngeal catarrh. He discovered the presence of a neoplasm in the pharynx and referred the patient to me for treatment.

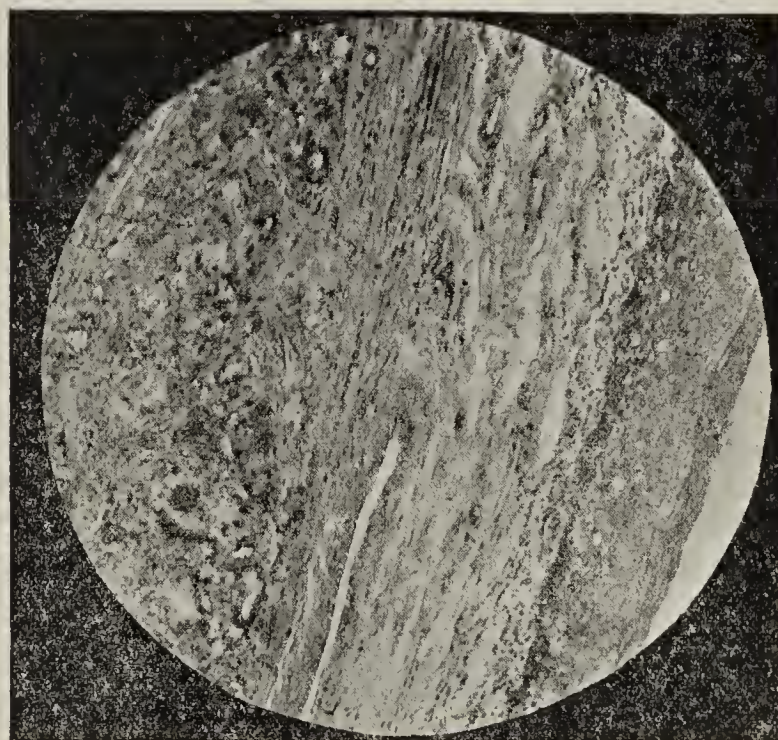
The patient's general condition when coming into my hands was apparently good. Though rather pale, she did not seem to be very anemic nor present any signs of cachexia strumiviva. Her mental faculties seemed excellent and she had a good school record. Her mother and teachers have stated that she was a “nervous child.” The contour of the neck seemed normal and palpation did not show absence or great diminution of the thyroid gland. The blood examination was rather negative.

Examination of the pharynx revealed the presence of a dark-red, globular, smooth, broadly pedunculated tumor about the size of a small hen's egg, attached well down at the very base of the tongue, a little to the right of the median line and in juxtaposition to the epiglottis but not infringing much upon that structure. The tumor was not visible by ordinary inspection with a tongue depressor, but plainly by the laryngoscopic mirror. I was uncertain whether it was an adenoma or an accessory thyroid gland. Its position to the right of the median line, the presence apparently in the usual situation of a thyroid body, the history (as given) of progressive increase of subjective symptoms, indicating that it was a growing neoplasm and the signs elicited by palpation, led me toward the diagnosis of adenoma. She was taken to Harper Hospital on the 14th. of September, 1901, and the tumor removed on the 16th., under chloroform anesthesia, by means of a heavy wire snare. This method was deemed preferable to a pharyngotomy, if it could be accomplished, in order to avoid the scarring of the skin of the neck which a pharyngotomy would cause. Preparation was, however, made for the performance of this latter operation, should it become necessary. No incision was made through the mucous membrane covering the tumor, but the whole was included in the snare. Considerable hemorrhage was encountered, which required the constant attention of my associate, Dr. V. S. Anderson, for about two hours. It was controlled, however, readily by holding a gauze compress saturated with adrenalin solution over the site of the growth by means of the fingers, the hand being passed well into the mouth. The wound healed nicely and she left the hospital in good condition, September 17th., 1901. Three weeks after this



Section Pharyngeal Tumor (Thyroid).

she was brought to my office (by her family physician, Dr. H. E. Smith) exhibiting well marked signs of myxedema, such as swollen skin, especially about the eyelids, mental dulness, headache, physical debility, etc. Thyroid extract in two-, increasing to five-grain doses, was administered three times a day regularly without untoward results and she began to improve rapidly. She is still taking the remedy intermittently, although she is very much better.



Section Thyroid (Pharyngeal) Tumor.

The clinical sequel to the removal of this tumor renders the diagnosis as to the nature of the growth absolutely certain, besides the supplemental proof offered by the histological examination. The most interesting lesson to be evolved from this case is the absence of evidence indicating atrophy of the true thyroid body. This organ, however, must have been abnormal in its functional activities, in a condition probably analogous to those cases of goiter in which the structure has undergone fibrous degeneration to the detriment of the vesicles and their secretory lining.

According to Berry, accessory thyroids are more often found in front of the larynx—anywhere between the upper border of the isthmus and hyoid bone, especially on the left side (in this situation he says they may be regarded as persistent portions of the pyramid of Lalouette); above and below the superior and inferior horns of the thyroid—where they may be regarded as extensions of the horns connected by bands of connective tissue; near the posterior border of the lateral lobe—lying upon the pharynx or esophagus; in more distant parts, as the root of the tongue, or even within the larynx. Berry thinks that most of the cases that have been described as “tumor of accessory thyroid” are really of this nature and are not examples of true accessory glands.

There is a very interesting article, written by Dr. J. A. Schadle (*Journal of the American Medical Association*, 1899, page 36), in which he relates three cases which came under his observation. One case was in a woman of 25, with a tumor at the base of the tongue. No pain, only the annoyance of knowing it was there. She was of good physique, but anemic; had some gastric disturbance and insomnia; the growth was the size of a walnut. The tumor was visible on protruding the tongue and more vascular during suppression of the menstrual flow. The treatment was first by electrolysis, afterwards removal by external operation (pharyngotomy).

Another case was also in a woman, age 23 years. The tumor was at the base of the tongue and the size of a hen's egg. The voice was changed somewhat and there was difficulty of swallowing.

Another case quoted by him, published in the *British Medical Journal*, Dec. 1, 1894, was in a girl, aged 17 years. The tumor was low down at the base of the tongue, against the epiglottis. It was the size of a small walnut. There was a normal thyroid. The mucous surface was cut through and the tumor removed by the raspatory and snare. The bleeding was profuse, but controlled by pressure with the finger upon a pledget of lint soaked with turpentine. This case is quite analogous to mine in very many particulars.

Butlin reports eight cases (*Transactions Clinical Society*), two of which were in females. They were treated by incision and the contents were scooped out. There was a recurrence in one of them.

Mayer, of New York, reported the case of a man with a tumor at the base of the tongue, which was thyroid tissue.

Holmes, of Cincinnati, has reported six cases, one of them in a woman with tumor on the base of the tongue and left tonsil.

Theisen (*Journal of the American Medical Association*, Vol. 37, October 26, 1891) has reported, with illustration, a case of a large tumor the size of a hen's egg in a woman, aged 67, at the base of the tongue. She had had goiter when young, but at the time of observation no thyroid gland was perceptible. He also reviews a number of cases of accessory thyroids and remarks upon the

peculiar fact that most of these cases have, so far as reported, occurred in women.

He also reported (*American Medicine*, Vol. 2, page 1013) the case of a tumor larger than a hen's egg situated at the base of the tongue. The growth was not removed. The treatment given was the administration of thyroid extract (five grains), strychnine (1-60 grain), three times a day after eating. The tumor apparently became reduced somewhat in about six weeks.

Watson reported (*Journal of the American Medical Association*, page 1091, October, 1899) two cases of thyroid tumor at the base of the tongue.

Dr. J. Collins Warren, of Boston, reported an interesting case, with illustration (*Amer. Jour. Medical Sciences* for October, 1892), in a woman, aged 52, which he thinks developed from a persistent upper part of the thyroglossal duct, which is formed in the development of the thyroid gland and opens at the base of the tongue at the foramen cecum.

H. Oderfeld (*Centralblatt f. allg. Pathologie*, Jena, March 5, 1901) had a case of supposed sarcoma, which was removed from the forehead of a man aged 58 years. It developed in three months to the size of an egg. In structure it was identical with thyroid glandular tissue. There were no other pathological manifestations.

Reidel reported a similar case of a tumor on the lower jaw.

Becker also reported a case of an accessory thyroid situated in the supraclavicular fossa.

Otto T. Freer reported in the *Journal of the American Medical Association*, March 30, 1901, the case of a woman, aged 32, in whom a ledge of tissue projected just below the true vocal cords and encircled the larynx. The thickening extended down the trachea over three or four rings—the thickened tissue, as shown by the microscope, proved to be typical thyroid glandular tissue. Operation for removal was proposed, but refused by the patient. Tracheotomy was performed to relieve dyspnea. She lived with the tracheotomy tube in position a long time. There was apparently no thyroid gland at the proper site. The growth was treated by electrolysis at first, but without good result. At the time tracheotomy was performed a small portion of the growth was removed and by microscopical examination was found to be true thyroid glandular tissue.

Meyjes, of Amsterdam, published a paper on the occurrence of accessory thyroid at the base of the tongue.

Altogether there are about twenty-five cases which have been recorded by American practitioners of these peculiar growths of the tongue or pharynx. The majority of these have occurred in women. In four only has it been noted whether the thyroid gland proper was atrophied or not. The method of removal (when attempted) has generally been by incision, either through the mouth or by external pharyngotomy, electrolysis or incision and curettement.

In one of Dr. Schadle's cases the growth was removed by the snare. In all of the reported cases alluded to there has been a marked absence of severe

or serious subjective or objective symptoms. Myxedema also has occurred very infrequently.

In conclusion, I might add that another probably similar case (in a middle-aged man) came under my observation during the past winter. I have learned that he was operated on in New York, but with what result I do not know.

NOTE OF A CASE IN WHICH THE TIME REQUIRED BY AN INAPPROPRIATE FOOD TO PRODUCE SCORBUTIC SYMPTOMS WAS ACCURATELY NOTED.*

By D. J. MILTON MILLER, M. D.,
of Philadelphia.

Infantile scurvy is now so frequently encountered and so well understood and recognized by the profession in general, that one almost feels that an apology is in order when he reports a case of the disease to a Society of this character. Not often, however, have we the opportunity, as in the case now reported, accurately to note the time when the scorbutic symptoms developed after the offending food or dietary was commenced. I am aware of no observations on this point in the literature of the affection. The usual history is that after a longer or shorter period of improper feeding the symptoms of scurvy appeared. In the majority of instances the use of the improper diet has been long continued, although Monti states that "several weeks" of such a dietary, as in the case related below, is sufficient to develop the disease. For these reasons, and not simply because of its scorbutic nature, it was thought that the following case would be of interest to the Society:

A. S., female, the child of well-to-do parents, was first seen in July, 1901, at the age of 3½ months. The infant was undersized, weighing but 9 pounds (2¾ pounds more than its birthweight). It had been breast-fed for 2 months, but not gaining in flesh, was given condensed milk (3i) and water (f. 3 iii). On this the weight increased until diarrhea supervened about 2 weeks before I saw her. Under a careful and painstaking dietary of modified cow's milk, partially peptonized, but not sterilized, the infant slowly increased in health and weight, so that by the following November the weight was 15 pounds, a gain of 6 pounds in 14 weeks. During the winter she had several attacks of indigestion, the last and severest in the beginning of March, 1902. After the trial of various modifications of milk, of whey and milk and whey alone, condensed milk was commenced in the proportion of one teaspoonful to 4 ounces of barley water. This was followed at once by normal stools and improvement in the general condition. In a few days fresh cream was added, and, with the other ingredients, gradually increased, until by May 1 the infant was taking 6 ounces of cream, 4 ounces of condensed milk and 5 ounces of barley water (or 1.25% proteids and 3% fat), and weighed 17¾ pounds (12 months old). One week later the mother wrote that for 6 or 7 days the baby had been fretful, sleepless and had refused its bottle. This was attributed to the eruption of one of the teeth. Five days later (May 12) word was sent to me that there was something wrong with the baby's left leg. On visiting the patient I learned that for 24 hours there had been unwillingness to move the left leg and cries of pain on attempts at motion when the limb was handled. Examination showed that the anterior and outer aspect of the leg, just above the ankle, was slightly swollen and exquisitely tender to the touch. No other limb was affected. There were no cutaneous hemorrhages, but the nose had bled somewhat profusely, and from no apparent cause, on the 2 days previous to my visit. The gums over the upper central incisors (there were 7 teeth) were slightly redder than natural and

on pressure bled freely. The condensed milk was at once stopped and a diet of fresh cow's milk and barley water (1.50% proteids, 3% fat, 6% sugar) was given, with fresh beef juice (1 ounce) and the juice of half an orange daily. Under this regimen the child recovered completely within a week.

The scorbutic symptoms in this case developed, therefore, exactly 8 weeks after the commencement of the condensed milk, or, if we regard the week of fretfulness and anorexia which preceded the actual scorbutic symptoms as the real onset of the affection, it took just 7 weeks for the improper food to produce the disease. This fact, it seems to me, apart from its intrinsic interest, is of value from a prophylactic point of view, in that it demonstrates how very soon scurvy may develop when we are feeding a baby temporarily, as we are sometimes compelled to do, on condensed, preserved or proprietary foods, and thus put us on the lookout, when we are so feeding, for the first symptoms of its appearance. It must be acknowledged that this infant was in a condition to develop scurvy, being undersized and with a digestion not capable of assimilating the amount of proteids suitable for its age; a deficiency of proteids, i. e., a too dilute food, being often a most potent factor in the production of the disease. But before the attack of indigestion which preceded the use of condensed milk, it was getting 2 per cent. of proteids (age of 11½ months) and was, barring the underweight, fairly well, so that it is more than likely that the scurvy would not have occurred had the condensed milk not been given.

SPINAL ANESTHESIA, WITH REPORT OF CASES.

By O. O. COOPER, M. D.,

of Hinton, W. Va.

Surgeon C. & O. R. R.; U. S. Examining Surgeon; Chief Surgeon of the Hinton Hospital.

This form of anesthesia is variously named spinal anesthesia, spinal analgesia, spinal narcosis, medullary narcosis, medullary anesthesia, subarachnoid anesthesia, subarachnoid cocainization, lumbar puncture, etc., etc. The first term used, spinal anesthesia, is the most commonly used to-day; while spinal analgesia is more strictly correct, since by this method only the heat and pain sense are abolished, while muscular sense and sense of feeling remain.

Corning, of New York, may justly be regarded as the pioneer in spinal anesthesia. October 31, 1885, he published an article in the *New York Medical Journal*, "Spinal Anesthesia and Local Medication of the Cord," but did not perform any surgical operation under its use.

Quincke, in 1891, wrote a classical article on "Lumbar Puncture." His idea was not to produce anesthesia, but in certain meningeal diseases to withdraw fluid for diagnosis and possibly to introduce other medicating fluids. The technique, however, is the same as for anesthesia.

In 1899, Bier wrote a paper, "Experiments with Cocainization of the Spinal Cord," which was immediately taken up by the profession and discussed the world over. Bier used the injection on his assistant, Hildebrand, and in turn was injected himself, being the first surgeon to give a practical dem-

*Read before the Philadelphia Pediatric Society, June 10, 1902.

onstration of the method. He was quickly followed by Tuffier, of Paris, who, in November, 1899, began its use and became the greatest enthusiast. His report of the first sixty-three cases shows success in every instance, but in a later report of two hundred and fifty-two cases he had five deaths—none, however, due directly to the anesthetic.

America has used it more often than any other country. The first five hundred cases were without death and, in fact, I have been unable to find a record of a death in America. In 1708 cases the world over there were 8 deaths due to the anesthesia, but the record is hardly fair, since in a great many instances spinal anesthesia was used because chloroform and ether were regarded dangerous.

It can be used in any surgical operation below the diaphragm and in obstetrical work. It is especially indicated in rectal work, in which the patient can assist by straining down; in hernia work, in which coughing will help to outline the sac; in cases of bronchial and kidney disease which contra-indicate ether; in fat, flabby hearts and arteriosclerosis in which chloroform is dangerous. Also when the patient refuses ether or chloroform and the surgeon sees no contra-indication to spinal anesthesia.

There are no after-symptoms in about one-fifth of the cases, but frequently there is nausea and there may be vomiting lasting from a few minutes to a few hours; headache is frequent and may be severe and persist 24 hours; occasionally there is a temporary paralysis of the anal and vesical sphincters. Sometimes there is a slight rise of temperature, but it is difficult to separate this from the ordinary slight rise of temperature following any surgical operation.

There are no permanent after-effects. Animal experiments, the few autopsies which have been made and clinical observation all prove this. There has never been a case of infection reported and I feel positive that, if there are no bad results in the first few days, there never will be any. You need not tremble for the cord. The cord cannot be injured. It ends at the first lumbar vertebra, and below this there is only the terminal filament which the needle would never strike. If it did puncture the cord, I see no reason why it would damage it. The injection is usually given below the fourth lumbar vertebra. The quantity of cocaine used is less than dentists use in pulling one tooth.

The technique is an important part, but is simple. The necessary articles are a hypodermic syringe that can be sterilized, a needle long enough to reach the spinal canal, with caliber large enough for the cephalorachidian fluid to flow through, and a sterile cocaine solution.

The patient, sitting on a table, the operator at his back, leans forward strongly in order to separate the spinous processes and laminæ of the lumbar vertebrae as much as possible. The back has been thoroughly cleansed as for the most important surgical operation. A line, either real or imaginary, is drawn between the highest points of the two iliac crests. This marks the fourth lumbar spine and fourth interlaminar space. Introduce the needle 2-5 to $\frac{1}{2}$ inch to right or left of the fourth spinous process down

through skin, fascia, lumbar muscles and meninges into the spinal canal, which can be recognized by the loss of resistance to the needle such as is felt in aspirating a pleural cavity; but the sure test is the escape of a few drops of the cephalorachidian fluid. Let about as many drops escape as you expect to inject minims of cocaine solution. Next attach the syringe containing the cocaine solution to the needle, previously having warmed syringe and solution to blood-heat. Inject slowly, consuming about one minute; hold in place about two minutes to allow the cocaine solution to diffuse in the spinal canal; remove the needle, seal the puncture with iodoform-collodion or Z. O. plaster or pad of sterile gauze and get the patient in proper position for the operation.

The injection may be made at any lumbar interspace. A few operators use the space between the fifth lumbar and the sacrum. Injections have been made in the cervical region. The fourth lumbar interspace is commonly selected.

The syringe I use is one with asbestos packing, the needles are ordinary hypodermic aspirating needles having a blunt bevel, the bevel tempered hard so it will penetrate, the greater part of the needle tempered soft so as to bend before it will break. These cost me 25 cents each. An iridioplatinum needle costs two dollars and a half and is not so good. A nice syringe is a glass one with glass piston and rubber washers. Any syringe that can be sterilized will do.

The solution injected can be cocaine, eucaine, nirvanin, antipyrine, morphine or a mixture of any of these, but the consensus of opinion favors cocaine.

The sterilization of the cocaine is an important item. Heat over 180 degrees is supposed to decompose cocaine and render it inert or at least ineffective. Fractional sterilization at 176 degrees from two to five times is safe. Bainbridge, of New York buys 5 grains of cocaine at the nearest drug-store puts it in a sterile medicine glass, adds 1 dram of ether and stirs with a sterile rod until all the ether is evaporated. The cocaine left in the bottom of the glass is considered sterile. To this is added one half ounce of sterile water, which gives a 2 per cent solution. Some operators prefer chloroform sterilization; others alcohol. I have used ether and chloroform.

Anesthesia begins in from 3 to 10 minutes or may be delayed to 30 minutes, generally beginning in the foot and creeping up to the diaphragm; it may reach the clavicle or even the upper extremities and entire head, but this cannot be depended on. The effect lasts usually from one to one and one-half hours and has lasted 5 hours. It may fail entirely, but the failures are likely due to faulty technique. If it fails you have to resort to ether or chloroform.

The three following cases in my own practice may be of interest:

CASE 1.—Colored, male, aged 28, healthy, coal-miner, bullet in ankle-joint of 3 years standing, located by skiagraph. Patient objected to chloroform. On April 11, 1902 I injected 15 minims of a 2% solution sterilized by ether in the fourth lumbar interspace at 10.46 A. M. At 10.50 A. M. analgesia to umbilicus; 10.53 reached clavicle and operation was begun. Used mallet and chisel; cut through external malleolus, and to a depth of $\frac{1}{2}$ inch in the tibia, a 38 caliber bullet was removed without pain. Patient

up several times and pointed out the place he thought the bullet was located. Fourteen minutes after injection had nausea and vomiting, one minute later bowels moved involuntarily; had taken salts before breakfast with no result. Operation lasted 18 minutes. Highest frequency of pulse 102. Analgesia lasted 2 hours and 10 minutes. One hour later got up and walked to buggy on crutches and drove home. Had some headache and slight rise of temperature. Complete recovery.

CASE 2.—White, male, aged 30, railway brakeman, inguinal hernia; operated on 2 years previously under chloroform, after which had vomiting and hiccoughing for 60 hours, his life in great danger. Anxious to have hernia operated on, but the surgeon was afraid to give chloroform. I advised spinal anesthesia. On February 13, 1902, used 15 minims of 2% cocaine solution, sterilized by ether. Anesthesia in 8 minutes, a little nausea and cyanosis, some sweating. Owing to effects of previous operation the layers were difficult to differentiate. It was a great help to have patient cough so as to outline the sac. No pain. Analgesia lasted 1 hour and 15 minutes. No further vomiting. Drank glass of milk in an hour. Some headache in 6 hours relieved by acetanilid. Uneventful recovery. Now at work.

CASE 3.—White, male, aged 34, stone mason, left inguinal omental hernia, treated 3 years previously by injection method by one of our leading quacks. Knew layers would be matted and advised spinal anesthesia so could cough and outline the sac for me. On May 13, 1902, used 15 minims of 1¼% solution cocaine sterilized by chloroform. Analgesia stole on him beautifully in 9 minutes. No pain throughout entire operation, which was a "Bassini." No nausea, said he wanted to eat while operation was going on, pulse not over 90, raised up to look at the wound when it was at its bloodiest stage. No headache and no elevation of temperature following. Drank a glass of milk as soon as he was taken to the ward. Ate ice-cream for supper. An absolutely perfect analgesia.

I have witnessed a great many operations under spinal anesthesia, most of them at Randall's Island, New York, by Bainbridge—appendicitis, amputation of thigh, talipes, hernia and bone operations, many of them on poorly nourished, rachitic children from 2 years of age up to 16. Some got blue, had clammy sweat, rapid pulse, requiring strychnine, but all reacted well. Several who had had previous operations performed under chloroform and ether were talked with. All preferred the spinal method. The nurses all preferred spinal anesthesia, as the patients had fewer after-symptoms, could take nourishment at once and required very little attention.

My final conclusion from reading reports to date, from witnessing other operators and from the few cases in which I have personally used spinal anesthesia, is that it should not be used without some special indication. My own opinion is well put in a letter of recent date from Rodman, of Philadelphia, who says in part, "Rightly used it is a good thing; but it should not be employed indiscriminately. I shall continue to use it in selected cases."

HOW TO RECOGNIZE TUBERCULAR CHANGES IN THE APICES OF THE LUNG ON PERCUSSION.

By HENRY E. STADLINGER, M. D.,
of Buffalo, N. Y.

Attending Physician to Erie County Hospital.

The subject upon which I am about to write is not altogether a new one, for Professor Krönig wrote an article and first called attention to it in 1889. But no effort has ever been made to obtain any statistics from a number of cases examined, so that some conclusions could be drawn of the conditions about to be alluded to, namely of the

difference of the two apices of the lungs by percussion. When we stop for a moment and think how important it is to recognize apical infiltrations (or shrinkages) before the tubercle bacillus is found, or even before elastic tissues appear in the sputum, the importance of this method should impress every physician who has to deal with the lungs.

In my opinion an earlier diagnosis can be constituted by this method than by the ordinary method of percussion by comparison, it is comparatively easy after a certain amount of practice, and a very slight involvement of the apex can be detected. The method according to which I proceed is as follows: In every patient that comes for examination I first find the amount of respiratory mobility of the lungs at their bases posteriorly, marking with pencil both expiration and full inspiration. This is to find whether the lungs functionate well; and the greater the respiratory mobility, the less likelihood is there of apical involvement. Then I proceed to the apices and map the lung tissue there from the surrounding solid tissues, just as I would map off the lung from the liver or heart dulness. It is of the greatest importance that percussion should be light and only finger to finger percussion. The patient should sit or stand as near the center of the room as possible, and away from table or desk; as this will often change the note of percussion.

The first thing I do is to compare by percussion the two apices; if a difference in pitch is found, I know that there will be a difference in the width of the apex resonance area, and it is needless to go further; but if no difference is found, which is so often the case by ordinary percussion, then I proceed to map out the apex from the surrounding tissues in the following manner. I first find the border line (height of the lung apex) on the inner side, and mark it, continuing this line to the sternoclavicular articulation, then following the percussion posteriorly and also mapping out the borderline. Thus I have the inner borderline of the apex. I next find the outer borderline, also starting in the supraclavicular space, percussing latterly to the border of the lung tissue, and mark it the same as the inner borderline. This outer line is curved with the convexity pointing toward the median line, and

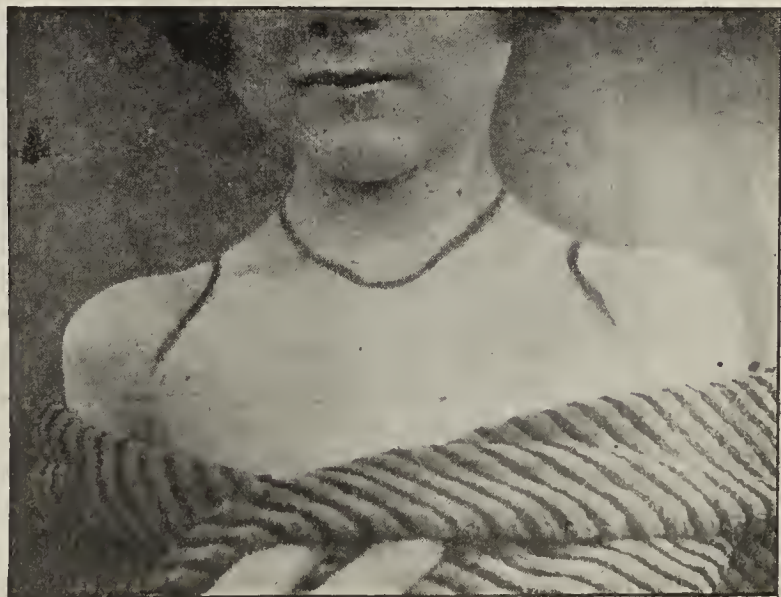


FIG. 1. Normal apices.

crosses the clavicle about in its outer one-third and disappears in the axilla. (See Fig. 1.) Then I follow this line posteriorly to the suprascapular region; here the borderline is difficult to obtain, especially so in stout individuals, in whom somewhat harder percussion is needed. After mapping out both sides I compare them by measuring them with an ordinary tape, from a point at the acromioclavicular articulation to where the inner borderline crosses over the shoulder. The tape should be adjusted so it will run along the top of the shoulder. Then I measure from the same point to the outer borderline, and subtract this distance from the first distance found and I have the width of the apex resonance.

In measuring this way I can also often distinguish in what portion of the apex, that is, nearer the inner or outer borderline, the pathological process is.

One exception must be noted, and that is where some deformity of the chest exists, such as spinal curvatures. In such an event one or the other apex may show the borderline higher or lower, as the case may be. But a most valuable point is to note whether or not both sides of resonance areas compare with each other in width. Even if a slight anomaly or curvature exists, and even if the apex resonance on one side is shifted as the result, the width of the apex resonance will be the same on both sides, and is then of no consideration. (See Fig.



FIG. 2 Deformed chest. Normal apices.

2.) But if one or the other side is narrowed, importance should be laid upon it.

The exact figure of the normal width cannot be given, it all depending upon the patient's "make-up," but about $4\frac{1}{2}$ to 5 cm. can be stated approximately.

In all cases the amount of respiratory mobility should also be noted at the apices. Pathological changes, which lessen the volume of air to the apices, displace the inner borderline out, and the outer inwardly, while processes which increase the volume of air widen the resonance area at the apices. The most important cases are those in which the tubercular process is of the subendothelial variety and involves the bronchus so as to shut off a portion of the volume of air to the apex.

Here the following presents itself upon percus-

sion: The borderline cannot be distinctly mapped out, but rather an indefinite borderline is found which would at once suggest that the process is located at one or the other edge of the apex, whichever the case may be. And again a variety of cases present themselves in which the borderlines can easily be mapped out, but, while percussing and trying to find the borders, a difference in pitch will be noted over a certain part of the apex resonance, still leaving the borderlines free and distinct, and producing no narrowing of the apex resonance. This would suggest that the process is near the center of the apex. This form is the hardest to recognize, but can be distinctly found in certain cases.

The foregoing two forms are very important, for, when recognized early, the treatment is many times good. But equally as important as the foregoing are processes located posteriorly near the inner borderline. Here I wish to omit entering into the discussion of the so-called anatomical and clinical borderlines of the lungs. After both apices are mapped out posteriorly, I compare the two inner lines and note whether the two lines meet the spine at the same point in height. If one or the other line meets a perpendicular along the spine at the third or fourth dorsal vertebra, instead of at the second (See Fig.



FIG. 3 Showing left-sided involvement.

3), it would suggest infiltration on the inner side of the apex; and the lower the borderline meets the perpendicular, the more extensive is the process.

One other important point must be considered, and that is, in some people with well-developed musculature, particularly on the right shoulder, due to the individual's occupation, a change upon percussion would be looked for; but out of 100 cases, examined in the Royal University Clinic for Internal Medicine, at Berlin, I could not find one in which this condition existed. On the contrary, the resonance was equal on both sides and in a number of cases more upon the right side than upon the left, which might be attributed to the more voluminous right bronchus.

In all cases the stethoscope should not be omitted for the following reason: Out of the above number of cases examined, 22 presented a somewhat higher pitched and sharper expiration at the right apex, and still the patients did not complain of any pul-

monary trouble. But in only five of these was there no narrowing of the apex resonance, and still the sharp high-pitched expiration was present. In two of these cases hereditary tuberculosis could be traced, the other three were over 30 years old and did not remember ever having had any symptoms pointing to the lungs. These cases might suggest some old healed process, and the patient never was aware that any pulmonary affection existed. Out of the remaining 78 cases 54 presented no change, and 20 cases showed from $\frac{1}{2}$ to $1\frac{1}{4}$ cm. difference of the apex resonance on one or the other side; 8 of these 20 gave a tubercular history. The remaining 4 cases had such a large amount of apical dulness that it was not necessary to map them out.

A CASE OF PUERPERAL NEURITIS.*

By CHARLES J. ALDRICH, M. D.,
of Cleveland, Ohio.

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Paralysis complicating and following the puerperal period has been described by many observers, yet it is sufficiently rare to merit a detailed report of all cases which are clearly defined and unquestionably due to the puerperal state. The following case possesses added interest, since it is a typical paraplegic neuritis, ataxic in type and certainly in evidence as a diseased process previous to the birth of the child. All other toxic influences, including alcohol, or other drugs and chemicals can be positively excluded.

Mrs. F. K., Bohemian, age 27, a widow with three healthy children, the eldest of whom is six years and the youngest about ten months. She was healthy as a girl, but has not been very strong since marriage. She has never lost any children nor has she had any miscarriages. Her husband died on the 16th. of September, 1901, of quick consumption. Careful examination reveals neither pulmonary nor cardiac disease in our patient. During all of her pregnancies she has been very sick at the stomach, vomiting continuously from the second month until her accouchement. During the latter months of her last pregnancy she suffered very much pain in her legs and states that they felt powerless and heavy; her arms, however, were strong. This weakness, powerlessness and numb feeling in her legs was very marked just previous to her delivery. Immediately after the birth of the child her legs became very painful and tender to the touch. After the usual stay in bed she attempted to get up, but found that, although the swelling and pain in the legs had disappeared, they were weak and numb. This weakness and numbness was particularly marked in the right leg. She states that when she attempts to go upstairs her feet feel heavy and if she does not watch where she is going her toes catch the carpet. Her legs are so weak and her ataxia so marked that she cannot go upstairs unless there is a banister for her support and guide. She cannot walk in the dark. She does not suffer from constipation and her sphincters are intact. She does not complain of shooting pains or backache, nor any affection except her inability to walk and the numbness in her feet and legs, which are no longer tender nor painful.

Examination:—She is of medium height, intelligent and thin to emaciation. The heart, lungs, abdominal and pelvic organs appear normal. There are no ocular affections nor any weakness or paralysis of any muscles or group of muscles in the face or upper extremities. She walks with

a distinctly ataxic gait and a marked foot drop is present on the right side. She cannot stand with her eyes closed, in fact she stands poorly with them open when the heels and toes are placed together. Both knee jerks are absent, front tap and Achilles jerk are also absent; plantar reflexes are absent. The gluteal and abdominal reflexes are present. A well-defined anesthesia of the sole of the right foot and toes is demonstrable. There appears to be distinct atrophy of the intrinsic muscles of the feet, which is most noticeable in the right foot, and there is evidently some atrophy of the anterior tibial and peroneal groups, most marked, however, on the right side.

Tendon reflexes in the upper extremities are quite indistinct. The tongue is protruded straight. The labionasal fold is deepest on the right side. The left pupil is larger than the right; both react promptly to light and accommodation; the palpebral apertures are equal; the disks and fields are normal, and a fine lateral nystagmus is present. Her sense of position is not good, she thinks I am "touching the great toe" when I am actually extending the foot strongly. On the anterior aspect of the left tibia is considerable periosteal thickening, which looks very much like a specific periostitis, although all other evidences and a history of specific diseases are entirely wanting.

The diagnosis of puerperal neuritis, paraplegic in distribution and ataxic in type, seems fully warranted.

THE PRACTITIONER.

April, 1902.

1. Bronchiectasis: A Clinical Study.

THEODORE DYKE ACLAND.

2. Infantile Ophthalmia. E. TREACHER COLLINS.

1.—Acland presents a clinical study of bronchiectasis. The dilatation of the bronchial tubes is associated with changes in their walls which may be inflammatory, degenerative or necrotic; it is generally coupled with excessive secretion which tends to become fetid before it is expectorated. There are many notable exceptions to these generalizations depending mainly on the causation, duration and localization of the disease. For clinical purposes the classification of bronchiectases according to the supposed shape of the cavities has little value. The extent and distribution of the dilated tubes depend so largely on the causation of the disease as almost to justify a classification based on the etiology rather than on the supposed physical characters of the dilatation, which are often unrecognizable by the ordinary physical signs of pulmonary cavities, and are frequently associated merely with the evidences of pulmonary fibrosis and thickened pleura. The most important causes are as follows: A. *In the lumen of the bronchial tubes.* (1) The impaction of a foreign body. (2) The inhalation of septic fibrinous plugs, as in diphtheria. B. (1) *Acute affections of the wall of the bronchial tubes*, resulting from (a) pneumonia, (b) bronchopneumonia, (c) tubercle, (d) diphtheria, (e) whooping cough. (2) *Chronic affections of the walls of the bronchial tubes*; (a) chronic bronchitis, (b) syphilitic peribronchial fibrosis and stenosis, (c) tubercle. C. *Affections of the parenchyma of the lung*; (1) chronic interstitial pneumonia, (2) collapse, from causes other than pressure. D. *Affections external to the lung*; (1) aneurysm, (2) neoplasm, (3) pleural adhesion, (4) thickened pleura. He presents a table showing the cause, as far as it could be ascertained, in 40 cases of bronchiectasis verified by post mortem examination. Chronic bronchitis had been present in 18; chronic cough since childhood in 6; pleurisy in 5; pneumonia in 4; tumor in 3; foreign body in 2 and aneurysm in 2. A second table shows the age incidence in 60 cases of bronchiectasis from all causes. Ages 0-10, one case; 10-20, 14 cases; 20-30, 15 cases; 30-40, 16 cases; 40-50, 8 cases; 50-60, 4 cases; 60-70, 2 cases. He presents the clinical histories, with illustrations, of 5 interesting cases of bronchiectasis. The data for forming a correct diagnosis seem to be in order of

*Presented to the Cuyahoga County Medical Society, February, 1902.

their importance as follows: (1) The sputum, especially as regards the fetor, daily amount, physical characters and method of expectoration; (2) fetor of breath on coughing; (3) physical signs in the chest including the signs of cavities, especially in relation to their size, distribution, occurrence and symmetry and their generally nonprogressive character and daily variations. The complications of bronchiectasis are numerous and important. The most frequent are due to: A. (1) The acute and chronic affections of the lung and pleura as the direct result of inflammatory processes from the seat of the disease and (2) hemoptysis. B. The direct results of the absorption of toxins and organisms; such as septicemia and pyemia, metastatic abscesses and pulmonary osteo-arthritis. C. Local results, clubbing of fingers and other extremities. D. General results, such as lardaceous disease of the viscera and emaciation. The tenure of life of a well-established case is extremely uncertain and is liable to be suddenly terminated by one of the complications which have been considered. In treating bronchiectasis 3 main objects must be kept in view, (a) the evacuation of the purulent and offensive secretion; (b) the disinfection of the tubes and the prevention of the fetor; (c) the obliteration of the cavities. He places the following methods in the order of their efficiency: (1) Inhalation of volatilized antiseptics, (a) creosote vapors, etc. (2) Subcutaneous and intravenous injections of antiseptic fluids. (3) Internal medication. (4) Surgical treatment (incision and drainage). He believes that the chances for successful results from operation (which has been performed in a number of cases in which there were signs of a large cavity, treated by incision and drainage), are extremely small. [T. L. C.]

2.—Collins discusses infantile ophthalmia and outlines the measures taken by the various countries in order to prevent the disease. In conclusion he gives the measures which at the present time seem to him best calculated to decrease the amount of blindness from this cause. These may be briefly summarized as follows: (1) Compulsory notification of cases of ophthalmia neonatorum by all persons attending women in labor, other than medical men. (2) instruction as to the importance of the universal adoption of prophylactic measures (preferably Credé's method, or the use of a sublimate solution, one in 2000, or protargol 20 per cent.) by all lecturers and writers of text-books on midwifery. (3) The appointment of ophthalmic surgeons to maternity institutions, more especially those which provide for attendance of women at their homes. (4) The provision in all midwifery-bags of a drop bottle labelled "drops for the eyes." (5) The better training of monthly nurses in the method of aseptic cleanliness. [T. L. C.]

Acute Membranous Pneumococcic Bronchitis.—Bosquier reports an interesting case of acute bronchitis in a girl of 12, with fever, moderate cough and slight dyspnea. She had had bronchopneumonia a year previous. Numerous rales were heard, both mucous and sibilant. She expectorated large membranous casts of the bronchial tubules. In one week she left the hospital much improved and has kept perfectly well since. A detailed description of the fibrinous bronchial casts expectorated follows. Pneumococci were found, virulent when inoculated in a rat. Bosquier believes it possible that the pneumococci remained in the bronchi from the pneumonia the year before. He states that the fact should never be forgotten that pseudo-membranous formations are due to pneumococci and streptococci as well as to diphtheria bacilli. Yet it is rare for membranes to occur in the expectoration in an acute condition. (*Journal des Sciences Médicales de Lille*, June 7, 1902.)

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending September 6, 1902:

SMALLPOX—United States.			C. D.
CALIFORNIA:	Los Angeles.	Aug. 16-23.	1
	Sacramento.	Aug. 16-23.	2
COLORADO:	Denver.	Aug. 16-23.	2
ILLINOIS:	Belleville.	Aug. 23-30.	1
INDIANA:	Indianapolis.	Aug. 23-30.	3
IOWA:	Ottumwa.	Aug. 23-30.	2
KANSAS:	Wichita.	Aug. 23-30.	3
MAINE:	Portland.	Aug. 23-30.	1
MASSACHUSETTS:	Boston.	Aug. 23-30.	5
	Brockton.	Aug. 23-30.	3
	Lawrence.	Aug. 23-30.	1
	Somerville.	Aug. 23-30.	2
MISSOURI:	St. Joseph.	Aug. 23-30.	9
	St. Louis.	Aug. 24-31.	12
MONTANA:	Helena.	Aug. 1-31.	1
NEBRASKA:	Omaha.	Aug. 23-30.	2
NEW HAMPSHIRE:	Manchester.	Aug. 23-30.	1
NEW JERSEY:	Camden.	Aug. 23-30.	7
	Newark.	Aug. 23-30.	4
NEW YORK:	New York.	Aug. 23-30.	6
OHIO:	Cincinnati.	Aug. 22-29.	2
	Cleveland.	Aug. 23-30.	76
	Hamilton.	Aug. 23-30.	3
	Middletown.	July 12-Aug. 9.	11
PENNSYLVANIA:	Erie.	Aug. 23-30.	1
	Johnstown.	Aug. 23-30.	12
	McKeesport.	Aug. 23-30.	2
	Philadelphia.	Aug. 23-30.	4
	Pittsburg.	Aug. 23-30.	12
SOUTH CAROLINA:	Charleston.	Aug. 23-30.	1
WISCONSIN:	Green Bay.	Aug. 23-30.	3
	Janesville.	Aug. 23-30.	1
	Milwaukee.	Aug. 23-30.	1
SMALLPOX—Foreign.			
ARGENTINA:	Buenos Ayres.	June 1-30.	3
AUSTRIA:	Prague.	Aug. 2-16.	1
	Trieste.	Aug. 8-16.	1
BARBADOES:		July 13-Aug. 12.	47
CHINA:	Hongkong.	July 12-19.	1
FRANCE:	Paris.	Aug. 2-16.	2
GIBRALTAR:		Aug. 10-17.	1
GREAT BRITAIN:	Dundee.	Aug. 8-16.	1
	Glasgow.	Aug. 16-23.	1
	London.	Aug. 8-16.	24
	Bombay.	July 29-Aug. 5.	5
INDIA:	Palermo.	Aug. 2-9.	5
ITALY:	Rotterdam.	Aug. 16-23.	1
NETHERLANDS:	Moscow.	Aug. 2-9.	1
RUSSIA:	Odessa.	Aug. 8-16.	2
	St. Petersburg.	Aug. 2-9.	4
SPAIN:	Corunna.	Aug. 8-16.	20
URUGUAY:	Montevideo.	July 9-23.	43
YELLOW FEVER.			
COLOMBIA:	Panama.	Aug. 18-25.	1
COSTA RICA:	Port Limon.	Aug. 7-14.	1
ECUADOR:	Guayaquil.	Aug. 8-16.	5
		Imported.	
MEXICO:	Coatzacoalcos.	Aug. 16-23.	5
	Vera Cruz.	Aug. 16-30.	23
PLAGUE.			
CHINA:	Hongkong.	July 12-19.	21
EGYPT:	Alexandria.	Apr. 14-Aug. 13.	72
INDIA:	Bombay.	July 29-Aug. 5.	5
	Calcutta.	July 26-Aug. 2.	2
	Karachi.	July 27-Aug. 3.	12
	Tamatave.	July 6-22.	13
MADAGASCAR:			
PHILIPPINE ISLANDS.	Cebu.	July 9-20.	90
CHOLERA—Insular.			
CHOLERA—Foreign.			
CHINA:	Hongkong.	July 12-19.	6
EGYPT:	Alexandria.	Aug. 5-13.	8
	Cairo.	July 22-Aug. 13.	556
	Assiout Province.		
	including Moucha.	July 15-Aug. 13.	536
	Behera Province.	Aug. 12-13.	13
	Beni Souef.	Aug. 11.	1
	Charkieh Province.	July 12-13.	6
	Galioubieh Province.	Aug. 6-13.	20
	Gharbieh Province.	Aug. 13.	1
		July 25-Aug. 13.	159
	Menoufieh Province.	Aug. 9-13.	6
	Minieh Province.	Aug. 9-13.	24
INDIA:	Bombay.	July 29-Aug. 5.	5
	Calcutta.	July 26-Aug. 2.	2
	Karachi.	July 27-Aug. 3.	21
JAPAN:	Osaka and Hiogo.	July 26-Aug. 9.	2
KOREA:	Chenampo.	Aug. 21, Severe.	
	North Korea.	Aug. 21, Severe.	

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8

VOL. X. NO 12

SEPTEMBER 20, 1902

\$5 00 PER ANNUM

Virchow and the Humoralists.—The death of Virchow makes us pause to compare the condition of pathology at the time his life-work ceases with its condition at the time when he commenced his professional career. When Virchow first took up the study of pathology it consisted of an immense accumulation of facts with little order, bound together by many theories which to-day we look upon as more or less absurd, but which explained satisfactorily to the pathologists and clinicians of those days the various phenomena of disease. The different tissues were considered more or less independently, and each was supposed to have a particular series of pathological changes. Indeed, to the present day, text-books on pathology classify morbid processes chiefly by the organs affected. The most interesting feature of early pathology was the doctrine of humors, which were supposed to pass from various portions, where they belonged, to parts of the body in which they were noxious, and in this way to produce many of the phenomena of disease. Virchow's great service consisted in reducing the unit from the organ to the cell, in showing that each individual cell is subject to certain general pathological processes and that, as a result, a disease agency could affect many different parts of the body. In fact, it may be said that his chief service consisted in showing us that the disease conditions of cells in many cases were due to certain general etiological factors, either introduced from without, or developed within the body. It is perhaps not too much to say that Virchow's cell doctrine remotely, but none the less certainly, paved the way for the subsequent application of bacteriology.

It has been claimed by certain writers that at the present day there has been a revulsion; that the cell doctrine no longer reigns supreme, and that we are returning in a sense—in a very much altered sense—to the old humoralistic theories. This statement is based upon the extraordinary development of the doctrine of toxins and antitoxins. These bodies are at present partly hypothetical, that is to say, we know them only by their effects. They can, it is true, be separated from the fluids of the cells

of the body, but only in combination with certain other bodies that are not identical with them, and they have hitherto eluded all efforts at analysis. They appear to be freely soluble, and the fluid of the body, particularly the serum, is capable of uniting with certain substances in the cells in some conditions and ultimately causing destruction of the cells, in others being themselves rendered innocuous. The substances found in the cells may in turn be dissolved in the serum and may act upon the toxins in the fluid portions of the body. It appears, moreover, that, in addition to the so-called antidotal substances, the toxins require for the development of their energy certain other normal substances, found either in the cells or fluids with which they may unite. These toxins resemble ferments in many respects and are, as far as we know, chiefly the result of bacterial activity. It will easily be perceived that this is no reversion to the humoralist theory; in fact, it is to a certain extent an exaltation of the cell doctrine, because the toxins themselves are produced by cells, and only in the presence of the cells, or of the peculiar bodies emitted by them, are they capable of acting. On the other hand, however, we are beginning to understand how certain soluble diffusible substances may exist in the fluids of the body and, in these fluids, be carried to different parts, giving rise to local disease processes exactly as the old humors were supposed to do.

After all, we are none of us, perhaps, either wholly at fault or wholly right. The pre-Virchowian generations were in error, more because they sought in the usual liquids of the body—the blood, the phlegm, the black and yellow bile—the source of disease. Virchow and the cellular pathologists devoted perhaps too much attention to the individual cell. The present generation, as all generations, is partially blind to its own defects, but our descendants may find us as grossly in error as we find the men in the early part of the last century.

Diphtheria Bacilli in Well Persons.—We have before us the report of a committee of the Massachusetts Association of Boards of Health on Diphtheria Bacilli in Well Persons. This subject is one

of the utmost importance and of wide general interest. It is the common experience that diphtheria bacilli frequently persist in the throat and nose of patients some time after recovery, and even persons not clinically diseased may, in many instances, harbor virulent bacilli. These facts are stated in the report to be quite in harmony with our knowledge concerning the relation of disease germs to the individuals liable to their attack. It has been the object of this committee to determine the frequency of the different forms of diphtheria—like bacilli in healthy persons and, secondly, the virulence of the different forms. A number of bacteriologists were requested to examine separate cultures from the nose and throat, according to the classification of Dr. F. F. Wesbrook, which is described in detail, and their reports have been carefully tabulated. The object of using a single satisfactory classification was to eliminate the personal equation to a great extent.

We regret that space does not permit us to discuss at length the bacteriological phases of the problem, i. e., the variations in form of the diphtheria bacilli and their virulence. The practical side which the question presents has been well considered, and two main conclusions are formed. It is stated that it is impracticable to isolate well persons infected with diphtheria bacilli, if such persons have not, so far as known, been recently exposed to the disease. The second conclusion is equally important. It is not advisable, as a matter of routine, to isolate from the public all the well persons in infected families, schools and institutions. Children of infected families should remain on their own premises, if possible. Wage-earners may usually be allowed to continue their work, unless they are brought into close contact with children. It is important to educate both children and adults in the necessity of properly caring for their persons and their secretions, so as to avoid, as far as possible, spreading of the infection. The practical difficulties in the way of isolating well persons who are carrying virulent bacilli in their throats are very great, and much hardship to the individual may thus result. The report before us handles the subject broadly and with due regard for the right of the individual and the community in which he dwells.

An Inorganic Enzyme.—This phrase will sound odd to physiologists and chemists who generally regard the enzymes as essentially organic and allied to the proteids. It is one of the functions of modern science to establish analogies and to correlate phenomena that are at first sight seemingly wholly independent. The functions of those complex bodies, classified provisionally under the terms "enzymes"

or "formless ferments," have been the subject of extended study, and although but little has been accomplished in proportion to the work to be done, yet it is evident that their actions are of the greatest importance in biochemistry. Most enzymes so far studied are "hydrolyzing," that is, bring about the taking up of water, but a few are oxidizing and others, again, have a different action. Several substances are known which exert in non-living matter changes analogous to those of enzymes, that is, seem to act by presence alone, suffering no apparent change in themselves and not being exhausted by repeated action. One of these has been for many years familiar in the chemical laboratory, namely, manganese dioxide, as a determinant of the decomposition of potassium chlorate. The latter compound, when heated alone, is not very easily decomposed, and when decomposition begins it is tumultuous, but the admixture of a small amount of manganese dioxide renders the decomposition of the chlorate easy and regular. The dioxide is unchanged and may be used repeatedly.

A striking example of this class of effects is found in the recently introduced "contact" method for making sulphuric acid. This acid is probably the most important manufactured chemical. It is necessary to a very large number of industries. It is to be expected, therefore, that a great deal of inventive talent should be applied to cheapening the cost of manufacture. For many years a process simple in general character, but complex in the molecular transformations involved, has been almost exclusively employed. This, known as the leaden chamber process, depended on the oxidizing action of nitric acid. Many years ago, however, a chemist noted the fact that finely divided platinum had the power to bring about combinations of substances, seemingly merely by its surface action. This knowledge was not followed up in a practical way until within a few years, when some German chemists undertook a study of the action and, after much patient labor, perfected a process which will probably supercede all others. In this, a mixture of sulphur dioxide and air is allowed to flow over finely-divided platinum at a definite temperature, when a combination occurs which will not take place under other conditions. The platinum retains its efficacy indefinitely, provided the gases that flow over it are of a certain degree of purity. Curiously, it was found that arsenic was the most objectionable ingredient, quickly rendering the platinum inert. Much research was given to the discovery of a method that would remove the arsenic. This was accomplished perfectly. An incidental advantage results from this fact, namely, that commercial sulphuric acid obtained by

the new method is likely to be free from that poisonous ingredient. That the manufacture is not a trifling affair is shown by the fact that in the year 1901 over 116,000 tons were made at one establishment. The industrial questions are of but little interest to doctors, but the phenomena upon which this great manufacture depends is so curiously connected with important biochemical problems that this brief note of the facts will be of interest.

The National Association of Hospital Superintendents.—We note with interest the fact that the next annual meeting of this Association is to be held in Philadelphia on October 14, 15 and 16. This body was organized three years ago and has been a success from the start. Meetings have been held in Cleveland, Pittsburg and New York, and the fourth meeting, to be held in this city, has every prospect of being one both of pleasure and profit. We have received a copy of the program, and note that it contains the names of superintendents of many of the large and representative hospitals of this country and Canada.

We also observe that many of these names have the M. D. attached to them, and we infer from that fact that a fairly large proportion of these officers are members of the medical profession. Some questions relating to hospital management are still in an acute stage, and not the least of these is the question of a fuller medical representation in their control. While we do not intend to discuss that question here and now, we should like to suggest that it is a good question for discussion in this association. Certainly no class of persons is more interested and more concerned in the hospitals than physicians. They do not always have the voice in their affairs that they might and ought to have, and we trust the doctors in Philadelphia will show a live interest in this meeting. While they are not officially invited, we doubt not that they will be cordially welcomed. There is no city in America that can offer more of interest and importance in the way of hospitals than Philadelphia. Here we have the oldest (the Pennsylvania Hospital) and also some of the best and most interesting. We trust the members of the association will find their visit in our midst to be one of exceedingly great profit.

Wanted—A Medical Man for Blockley.—We are not prepared to say that every hospital in the land would be better for having a medical man for its superintendent, but we are more than ready to say that some of them would. We cannot, and have no wish to, ignore the fact that some laymen make excellent superintendents, but we contend that some particular hospitals suffer because they do not have

a medical man as chief. We think we have such a hospital in Philadelphia.

No one will deny that the Philadelphia Hospital at Blockley is a great—a very great—hospital. None will deny also that it has achieved greatness not always because, but sometimes in spite, of the character of its administration. Blockley for many years has had laymen for its superintendents, and with the single exception of Captain Lawrence (who was a good administrator and the best incumbent the office has ever had) these laymen have not made brilliant records. Some of them have even been criminal.

There are special reasons why the Philadelphia Hospital should have a medical man at its head. In the first place, this hospital presents many vexed questions in hygiene and administration that are essentially medical; and, in the second place, it is a large teaching hospital. The reputation of Philadelphia as a medical center has grown, first, upon the reputation of its medical scientists and, second, upon that of its medical institutions; and of these institutions there are three especially that have been conspicuous—the University of Pennsylvania, Jefferson Medical College and the Philadelphia Hospital.

The opportunity is now offered to test the value of a medical superintendent for Blockley. It is idle to say that physicians have not the executive capacity. The answer to this criticism is found in the fact that such institutions as the Boston City Hospital, the Presbyterian Hospital in New York, the Episcopal, the Jefferson and the German Hospitals in this city, and many others, as well as nearly all the large insane hospitals, have medical superintendents. The truth is that more medical supervision is needed in some of our hospitals, and this is particularly so at Blockley.

The insane department at Blockley itself has been ably administered for years by a physician—Dr. Daniel E. Hughes. But Dr. Hughes' power has been limited by that of his chief.

The Summer Diarrhea of Children and the Bacillus Dysenteriae.—The discovery by Duval and Bassett (*American Medicine*, September 13, 1902) that the bacillus dysenteriae (Shiga) is a cause of summer diarrhea of children, perhaps the only cause, appears to be most important. Just what conclusions should be drawn from it is not yet entirely clear. At any rate we can no longer regard tropical dysentery as a specific disease, in the sense that it is the only result of a definite infection. Why this form of dysentery should be relatively uncommon in the United States and common in the Philippines, when the accepted etiological factor is found in both places, is difficult to understand. That it

is the etiological factor can scarcely be doubted in view of the positive serum reactions; and these seem to show, moreover, that there is no essential difference between the cultures obtained from different forms of disease. While in doubt regarding the pathological significance, let us at least hope that an efficient antidysentery serum will soon make us masters of all forms of infection with the bacillus dysenteriae.

The Pennsylvania State Medical Society.—We go to press too early to comment upon the proceedings of the State Society at its annual meeting, held this week in Allentown. At this writing the prospect for a successful meeting is excellent. The program is an especially attractive one, and if it "materializes" as well as it reads, the meeting will be an assured success. There is every reason why Pennsylvania should have a large, influential and hard-working representative society. While it is true that the medical journals to a large extent hold the field as purveyors of medical literature, and offer facilities which medical societies cannot compete with, the fact remains that these societies do in their turn what the medical journals cannot do. They offer (to a comparatively few, of course) the opportunities for fellowship that come but at long intervals, and the occasions for the authoritative expression of opinion that gives to the profession not a little of its hold upon the public. We expect to publish a full report of the meeting of the State Society at Allentown.

A Demand for Mrs. O'Leary's Cow.—The health authorities in Chicago evidently feel that they are in trouble, because of the epidemic of typhoid fever in that city, and they are not hesitating about unbosoming themselves to the public. Their regular bulletins are interesting reading. Their object is not only to warn, but also to "scare" the public into some hygienic common sense. The most infected districts are evidently some of the slum neighborhoods, and in these the health authorities have been going about with a kerosene can, sprinkling food that is unfit to be eaten and trying to clean things up. "But," says the bulletin, "the department has no authority similarly to sprinkle the dwellings unfit for human habitation. Mrs. O'Leary's cow would be a godsend in many districts of Chicago to-day." That historic animal, it will be remembered, started the great fire in Chicago in 1871. But did the Chicago authorities ever read Charles Lamb's essay on roast pig? If so, they will recall that after many ages it was discovered that in order to roast a pig it was not necessary to burn down the house. Perhaps Chicago might clean up without burning itself down.

Current Comment.

MEDICAL MALTHUSIANISM.

It is said the profession of medicine is badly overcrowded. To be sure. Crowding is nature's way of forcing us to climb. If we want more food, better air, success and other things, there are the altitudes to be reached by special effort. Special excellence, special ability, with some such crutch, we may climb if we will. There are not enough patients to go around? Pshaw! the whole world is sick, and yelling for remedies. The man who demonstrates a belief in himself and an intention to succeed is hounded with solicitation for help. We cannot all make a living in practice? That is because we are not all good business men. We do not want the money we have worked for as badly as the man who has it in his possession, consequently we do not put out much effort to get hold of it. The man who gives the world distinctly to understand that he is going to have what is his soon finds that it will not dispute with him.

—*The Medical Brief.*

THE METRIC SYSTEM.

It is only because precedent is so persistent, and grown people become lazy and hate change, that we cling to our old, unscientific system of weights and measures. We have a decimal system in our coinage, and it is the most sensible system in the world. It is easy to reckon change and make up interest. Yet, when the attempt is made to apply a scientific system to measures of weight, quantity and length, there are objections that it upsets the measures now in use. Of course it does. It considerably upset other things when the barons forced the King to sign the Magna Charta, and when the fathers of this Republic signed the Declaration of Independence. Men progress by upsets, paradoxical as it may seem. But the metric system is gaining slightly, yet steadily.

—*The Brooklyn Eagle.*

Correspondence.

A VISIT TO THE LEPER LAZARETTO AT TRACADIE, NEW BRUNSWICK.

By HENRY W. STELWAGON, M. D., of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

Your readers may be interested in a brief account of a visit to the leper lazaretto at Tracadie, New Brunswick, which I have just had the pleasure of making. Leprosy is thought to have been introduced by the sailors of a French ship wrecked here during the last century. While the disease is seldom observed among the natives in other parts of Canada, in this region, on the Gulf of St. Lawrence, extending in area fifty to one hundred miles or so, it is still occasionally encountered, but not nearly so frequently as some years ago. Tracadie and the immediate vicinity furnish but few cases at the present time, most of the patients now at the lazaretto coming from adjoining districts, more especially from Caraquet and thereabouts. It seems particularly confined to the French inhabitants of pure type. From an average of 30 to 40 inmates some years ago, the institution now only contains 18, and 4 of these are imported cases—3 Icelanders—so that the disease is gradually, but steadily, decreasing. It has been strikingly, although by no means exclusively, confined to certain families, attacking one to several or more members of succeeding generations. This fact formerly led Dr. A. C. Smith, the attending physician, to share the view held by some others, that the malady was of hereditary and not of contagious character. The discovery of the bacillus, however, and subsequent studies and observations, have led him to give up this opinion completely. He believes, and correctly, I think, that certain families have some hereditary tendencies or tissue weakness which make them more susceptible to the successful invasion of the germ than others.

and hence its frequent occurrence in several members, the disease being introduced by one and communicated to the others. His observations show that most of the cases occurring outside of such families are in those who have been intimately associated with those affected families. While such facts point to the communicability of the disease, its rare occurrence and the relatively few cases in this and other communities whose freedom of action and association are common, show that the probability of communicability is somewhat remote and that as yet imperfectly understood conditions, among which doubtless are family tendency, tissue weakness, improper and insufficient food, exposure, etc. are necessary for a successful implantation of the specific bacillus.

The gradual diminution in the number of cases, Dr. Smith believes, is due both to the segregation accomplished by the hospital and to the improved mode of living of the affected communities. The latter is doubtless a not unimportant factor, inasmuch as the segregation practised is not strictly compulsory; and, moreover, a number of patients with whom I talked stated that they had had the disease one to several years before entering the lazaretto. When the lazaretto was first established, the entrance of discovered cases was made compulsory, but its execution gave rise to so much opposition, concealment and frequent forcible attempts at escape that this law became practically obsolete. The present plan is a better and more efficient one. The doctor, as soon as he hears of a suspected case, makes immediate investigation and, if the diagnosis is established, advises the subject to enter the lazaretto, which advice is often refused. The friends of the patient are then told of his condition and his employers are also informed. The advantage of isolation and the possible danger of association are pointed out, so that finally from all influence thus resulting and the patient finding himself without the means of livelihood, sooner or later he gravitates to the lazaretto, where he willingly remains.

The cases now in the lazaretto differ but little if at all from cases observed elsewhere. They seemed to me to be of a relatively mild type, but the average duration of nine to ten years observed in other leprosy centers also obtains here. In exceptional instances, the doctor informed me, the malady has lasted thirty to forty years before death occurred. In many of the cases death resulted, apparently at least, from some independent intercurrent disease. In most, however, the final result was brought about by gradual exhaustion or by serious throat and lung complications. The frequent and marked involvement of the throat in many of the cases here, and often quite early in the disease, particularly impressed me. Likewise, the early nodular deposits in the cornea, sight being rapidly impaired. Upon the whole the cases here are of the mixed type, the majority, however, with the tubercular or nodular manifestations most pronounced. After admission to the lazaretto in some of the patients, owing to the sanitary situation, improved food and hygiene, the disease shows, temporarily at least, varying abatement or quiescence. In a few of the cases the administration of chaulmoogra oil, in increasing doses, had very materially influenced the disease favorably. The presence of the disease and the lazaretto have given rise to little, if any, concern, most of the people viewing the malady as purely hereditary and devoid, or practically so, of contagious properties. No nurse or other attendant has ever taken the disease, and evident examples of contagion, excepting its frequency in several members of a family, are rare indeed. In concluding I wish to acknowledge my obligations to Dr. A. C. Smith, the attending physician, who extended me all courtesies and full liberty of action in the examination and questioning of the patients.

Reviews.

Psychopathological Researches; Studies in Mental Dissociation. By Boris Sidis, Ph. D., Director of the Psychopathological Laboratory, New York. G. E. Stechert, 1902.

This is a hard book to read and a still harder book to understand. The reason for this, we are convinced, is that

the authors themselves (for it is a joint work) have not always very clear ideas of what they want to say, and moreover use a terminology that is cumbersome and unintelligible in the extreme. There is no excuse for this. Clear thinking in psychiatry, as in everything else, leads to clear writing, but mere misty speculation about things which no human knowledge has yet grasped, leads to verbosity. For example, we are told in the introduction that "psychologically, functional psychosis is co-extensive with the whole domain of the subconscious," and "physiologically, functional psychosis is correlated not with organic neuron degeneration but with functional disaggregation." Now we submit that this is rather a roundabout way of saying that a functional psychosis is functional, and that, when the authors talk about such a state being co-extensive with "the whole domain of the subconscious," and that it is due to "neuron disaggregation," they are simply taking their readers over their heads into deep water, and have no guarantee for such statements. We recognize here the theory of the neurons wiggling their tails and getting out of touch with their neighbors.

The whole superstructure of this book is speculative, as is shown in its introduction, in so far as it dogmatizes about the "subconscious" and about "neuron disaggregation." Much of it, however, is singularly commonplace when its obscure language is analyzed. Thus in this introduction there are said to be three stages of psychomotor decline. The first has been referred to above. The second is one in which the neuron is not only "out of touch," but is also beginning to be organically degenerated, but not irremediably. In this stage we have paralysis agitans, chorea, idiopathic epilepsy, mania, melancholia, periodical and circular insanities, dementia praecox and paranoia. What a mixture is this!

In the third group the neuron has become hopelessly degenerated, and the group includes tabes, general paresis, syringomyelia, the chronic insanities, amyotrophic lateral sclerosis, acute ascending paralysis, multiple sclerosis, secondary dementia, "and many other nervous and mental affections." One might almost ask whether there are any others?

What is all this more than saying that we have functional and organic diseases? Why employ an obscure phraseology to say it? What is to be gained by mixing up these incongruous diseases? What light is thrown upon the real pathology and etiology?

Finally, the authors tell us that "the symptomatic side of disease, the total psychomotor aspect of the pathological process, is a function of location, number and degree of dissociation and degeneration. The total complex of psychomotor manifestations depends on locality and number of neuron-aggregates involved and on the stage or degree of the pathological process of disaggregation, dissociation or degeneration." In other words, nervous diseases are diseases of the nerves, but of what nerves is not always clear. It is to expound all this that the authors have written this book.

From the clinical standpoint the book is highly interesting—not so much for anything especially novel in the cases as in the novel way in which they are discussed. We hear much of hypnotism and of "double personality" and other kinds of personalities. Thus Dr. Sidis describes a simple case of hypochondriacal melancholia in which the patient was infested with imaginary worms. This patient was hypnotized and put into various trance-like states. These are described in great detail, quite in the French fashion, and the mental contents noted. A most interesting fact was that, in whatever hypnotic state the patient was put, his central delusion remained unchanged, a fact in accord perhaps with the well-known other fact that it is extremely difficult to influence the insane by hypnotism. In fact, we venture to say that very few patients with this disease could be hypnotized at all.

This case and its treatment throw much light upon the attitude of the authors toward the problems of insanity. They doubtless regard hypnotism as an important agent in their investigation. With what profit such a scheme could be worked in unravelling the "subconscious," and in exploring the "disaggregation of neuron-aggregates" in relation to insanity, we leave to others to decide.

[J. H. L.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Orthopedic Hospital and Infirmary for Nervous Diseases, Philadelphia.—New buildings, at a total cost of \$150,000, have been begun at Seventeenth and Summer streets, as additions to the Orthopedic Hospital. An additional 5-story and basement hospital building is to be built, adjoining the present hospital building, with a power house and basement kitchen back of it.

University of Pennsylvania.—Dr. John Marshall, professor of medical chemistry and toxicology and dean of the medical faculty, has announced his intention of refusing re-election as dean for the coming year. He was first elected dean 7 years ago, succeeding Dr. James Tyson. He desires to be relieved of the many duties attached to the office of dean, that he may devote all his time to chemistry and toxicology.

The Health of Philadelphia.—Only 379 deaths occurred during the week ending September 13, many less than for the corresponding week of the last 3 years. One hundred and twenty-one cases of typhoid fever were reported during the week, with 13 deaths. Six cases of smallpox were reported, with no deaths. The Board of Health is enforcing stringent measures to prevent the spread of smallpox. Four of the 6 cases reported were in the twenty-eighth ward, where a house-to-house inspection was made last week, hundreds of people having been vaccinated.

Smallpox Near Coatesville.—Over 50 cases of smallpox have occurred at Rock Run, one mile north of Coatesville. The diagnosis first made was chickenpox. Eight special officers have been appointed to enforce quarantine.

Bequests.—By the will of the late Miss Harriet S. Benson, of Philadelphia, \$10,000 each were left to the Philadelphia Home for Infants, Children's Hospital, Home for Incurables and other charities; \$5,000 each to the Pennsylvania Hospital, Polyclinic Hospital, Medico-Chirurgical Hospital, Wills' Hospital, Woman's Hospital, Gynecean Hospital and many other charities.—The late Mrs. Mary E. Dunkel, of Harrisburg, left \$5,000 to the Harrisburg Hospital.

NEW YORK AND NEW JERSEY.

Diphtheria in Clayton, N. J.—Twelve cases of diphtheria have been reported, with one death, during the present outbreak, which appeared 2 weeks ago.

The Health of Camden, N. J.—For the month ending September 15, 41 cases of contagious diseases were reported. Fifteen of these were scarlet fever, 13 smallpox, 7 typhoid fever and 4 diphtheria and tuberculosis each.

More Hospitals For New York.—The trustees of Bellevue and allied hospitals consider their hospitals antiquated and unsanitary, and a disgrace to the city of New York. They have urged Mayor Low to provide a new hospital of modern design soon. The present hospitals are overcrowded, have inadequate facilities for patients and dark and unwholesome quarters for employes. Besides, the plumbing throughout Bellevue Hospital is unsanitary. There are but 16 rooms in the hospital to accommodate 43 physicians, who naturally are unable to obtain sufficient rest. In answer, the Mayor has virtually pledged his administration to increase the number of hospitals for the treatment of contagious diseases, and to provide for this purpose a fund of \$2,000,000, to be expended in the next 3 years. While London has 6500 beds, or one for each 1000 of population, New York has only 750 beds for the treatment of infectious diseases, one for each 5000 of population. Besides, only 9½% of cases of infectious diseases in New York were treated in hospitals last year.

Children's Home, New Brunswick, N. J.—The Children's Industrial Home recently received \$5000, to be known as the Lizzie Page Hillhouse Memorial Fund, from Mrs. C. P. Huntingdon, in memory of her sister, who was active in philanthropic work in New Brunswick.

New Jersey State Hospital for Consumptives.—The State Tuberculosis Commission, at its meeting at Newark, September 12, decided to purchase 400 acres of land at Glen Gardner as the site for the New Jersey Hospital for Consumptives. At the last session of the New Jersey legisla-

ture an appropriation of \$50,000 was made for this purpose.

Peabody Home For Aged and Indigent Women.—The new building at Boston avenue and 179th. street was opened September 8. The inmates are all over 70 years of age. The new building, called Dorothy Hall, is the gift of the Misses Stokes, and cost \$40,000, unfurnished.

Brooklyn Public Schools.—Fifty inspectors, on duty at 137 schools in the Borough of Brooklyn, examined nearly 200,000 children upon the opening day of school, last week, and found over 1500 of them diseased. The majority of these children were debarred from school on account of parasitic disease of the scalp. In one school alone more than 75 children were found so afflicted. Eye troubles were also frequent. This is the first time that physical examinations were made in the public schools in Brooklyn. In one school a little girl who was excluded was so wrought up over it that she went into hysterics.

CANADA.

(From our Special Correspondent.)

Calgary for Consumptives.—Dr. James Stewart, professor of medicine at McGill University, Montreal, who has returned from an extended tour of the Canadian Northwest, was much impressed with the climate around Calgary and considers that the neighborhood of Calgary offers exceptional advantages for a consumption sanatorium.

British Columbia Medical Association.—The third annual meeting was held at Vancouver, August 29 and 30, under the presidency of Dr. R. F. Walker, of New Westminster. Dr. J. M. Pearson, Vancouver, acted as secretary. Dr. E. C. Dudley, of Chicago, contributed a paper on gynecology. The association will extend an invitation to the Canadian Medical Association to meet at Vancouver in 1904.

The French Medical Society of North America.—The French Medical Society of North America was organized at Quebec in June. There were over 200 French practitioners from the United States and Canada present, to hear 80 papers read. The society will assemble in 1905 in Montreal with the following officers: President, Dr. Foucher, Montreal; vice-presidents, Dr. Ahern, Quebec, Dr. Petit, Nashua, N. H., and Dr. Rouleau, Calgary, N. W. T.; secretary for Montreal, Dr. LeSage; secretary for Quebec, Dr. Art. Simard; treasurer for Montreal, Dr. Boucher; treasurer for Quebec, Dr. Marois.

Infant Registration.—The physicians of Westmont, a suburb of Montreal, are objecting to a by-law, passed some time ago, which renders physicians liable for the registration of infants, under penalty of fine or imprisonment. The matter was brought up at the last meeting of the Montreal Medical Society and a resolution was drawn up to the effect that this law imposed an unnecessary and grievous burden upon the medical profession in Montreal and its suburb.

International Congress of Gynecology and Obstetrics.—Two professors of Laval University, Montreal, Drs. L. N. Delorme and M. T. Brennan, are attending the fourth international congress on gynecology and obstetrics at Rome, Italy. Five American physicians are also present.

Death of Dr. Price.—The death of Dr. Nelson Price, of St. John, N. B., is announced, at the early age of 28 years. Dr. Price had gone to South Africa with the hospital corps of the Canadian Mounted Rifles, but contracted typhoid fever shortly after his arrival, of which he has since died.

MISCELLANY.

Leprosy in Cuba.—The medical board has reported favorable progress in the 10 cases of leprosy now under treatment in the hospital in Havana. Two Cuban physicians, Drs. Duque and Moreno, have been allotted \$250 a month by the House of Representatives to investigate a cure for leprosy. They employ an extract of red mangrove, which is used both internally and externally.

Cholera.—Captain Southall, Surgeon, U. S. A., who recently arrived from the Philippines, states that the only remedy to check the epidemic of cholera now raging is a bountiful downpour of rain. The efficiency of the surveillance of the infected parts of Manila under native doctors is doubtful. In some cases the native physicians have openly defied the orders of the army surgeons. Several deaths have occurred recently in Mariquina, whence comes the city's water supply and there is danger of a further

spread of the epidemic in that vicinity. Four cases of cholera and 3 deaths occurred on the U. S. transport *Sherman* between Manila and Nagasaki, where she arrived September 11. She has been kept in quarantine at Nagasaki. She is bound for San Francisco. Colonel Maus, who arrived in the United States last week from Manila, says that the worst of the epidemic is over and that cases are growing less numerous day by day. It is his opinion that the disease will be totally eradicated by November 1. On account of the impoverishment of the people by war and cholera, the United States has remitted the land tax in the province of Batangas, Luzon, for the year 1902.—Latest news from Honolulu gives the details of the terrible destruction occasioned by cholera among the Borneo native soldiers. As we announced in our issue of July 12, the native troops were sent up the Batang Lubar River against the head hunters in June. Seven hundred boats started from Simanggang, carrying 10,000 soldiers. In the first 2 days 2 deaths occurred from cholera. During the next 2 days the disease spread rapidly. From a dozen deaths the third day, the death-rate leaped to over 200 the fourth, to 500 the fifth, and when they reached camp the next day, nearly 2,000 had died. Of the entire 10,000, scarcely 1,000 survivors reached Simanggang. Unconscious of the disease, or indifferent to it, bands of head hunters followed along the river banks and decapitated hundreds of the dying.—Official advices from Seoul, Korea, state that the cholera epidemic is still severe in Chenampo and further north. Russian official reports show that there have been 4043 cases of cholera with 2556 deaths along the Eastern China railroad up to August 28. It is now believed that the spread of the cholera has been checked.—Cholera returns from Egypt, September 11, show 1380 fresh cases reported, making a total number of 20,328 cases with 16,209 deaths since July 15.

Obituary.—Dr. Monroe T. Pultz, at Staffordville, N. Y., September 9, aged 50 years.—Dr. E. N. Clark, at Beloit, Wis., September 8, aged 85 years.—Dr. Henry P. Shattuck, at Brooklyn, N. Y., September 6, aged 58 years.—Dr. T. H. Phillips, at Canton, Ohio, September 1, aged 67 years.—Dr. George S. Hull, at Pasadena, Cal., August 28.—Dr. Frederick G. Ibach, at Mauch Chunk, Pa., September 12, aged 44 years.—Dr. J. P. Wayland, at Portage, Wis., September 10, aged 61 years.—Dr. John M. Wert, at Philadelphia, Pa., September 13, aged 52 years.—Dr. Lucretius D. Ross, at Pulteney, Vt., August 25, aged 75 years.—Dr. Francis W. Chadbourne, at Lowell, Mass., August 21, aged 59 years.—Dr. William McD. Struble, at Trenton, N. J., August 28, aged 42 years.—Dr. George G. Verbryck, at Salt Lake City, Utah, August 23, aged 43 years.—Dr. Thomas A. Mason, at Terre Haute, Ind., August 28, aged 58 years.—Dr. Joseph M. McManigal, at Hoboken, Pa., August 29, aged 39 years.—Dr. George O. Perkins, at Detroit, Mich., September 2.

GREAT BRITAIN, ETC.

British Association for the Advancement of Science.—At this year's meeting, held last week at Belfast, Professor Schafer, in the section upon physiology, said that the vermiform appendix was not the only item in the human anatomy which has been regarded as superfluous and useless. He has been experimenting with extracts from the pituitary body, injecting extracts of it into animals. The results of these experiments show that the kidneys have been stimulated into activity. He infers that the function of the pituitary body, formerly regarded as useless, is stimulation of the kidneys, although the pituitary body, situated at the base of the brain, is far removed from the kidneys.

Beri-Beri on a French Ship.—The French ship *Tarapaca*, from Caleta Buena, reached Falmouth, England, August 20, with 10 of her crew suffering from beri-beri. Three sailors had died of the disease on the voyage. It is believed that 4 of those landed at Falmouth cannot recover.

Memorial Cottage Hospital, St. Andrews, Scotland.—This hospital was opened August 27. It was started as a memorial to Lady William Douglas, but contains the Tait Memorial Ward, built by subscriptions from 145 golf clubs, in honor of Lieutenant Tait, one of the best English amateur golf players, son of Professor Tait, of Edinburgh, who was killed in South Africa.

Sanitary Organization of the British Army.—At the Sanitary Congress, held in Manchester, September 11, Sir James

Crichton Browne, M. D., emphasizing the necessity for reform in the sanitary organization of the British Army, stated that the British forces in the South African War had been reduced by typhoid fever by almost 80,000 men. But for this the war would probably have been ended 6 months earlier and \$300,000,000 would have been saved.

Against Malaria.—The Liverpool School of Tropical Science, which is waging a vigorous war against malaria, has decided to send out a number of fresh expeditions to the Gold Coast, Egypt and the Congo. Major Ronald Ross, of the School of Tropical Medicine, formerly in the Indian Medical Service, leader of the expedition which found malaria-bearing mosquitoes in West Africa in 1899, is soon to leave for the United States, in response to an invitation to investigate malaria. Major Ross is well known throughout the medical world as the discoverer of the connection between malaria and mosquitoes.

Obituary.—Dr. George Cleghorn died recently at Wanganui, New Zealand, aged 55 years. He was graduated from St. Thomas' Hospital, London, and took the degrees of M. R. C. S. and L. S. A. in 1872. He left for New Zealand in 1876. He received his M. D. from the University of Durham in 1891. He was one of the best known surgeons in New Zealand.—Dr. Accacio da Gama died recently in Bombay, aged 57 years. He took his degree at the University of Bombay in 1872. In 1884 he established the Bombay Eye and Ear Infirmary. He acquired considerable reputation as an ophthalmologist, having performed 1836 operations for cataract.

CONTINENTAL EUROPE.

Virchow's Funeral.—The funeral of the great scientist, one of the 4 citizens upon whom the freedom of the city of Berlin has been conferred, occurred September 9. The City Hall was profusely decorated with flowers, the assembly rooms of the magistracy where the services were held being most lavishly adorned. In the adjoining lobbies was a great display of magnificent wreaths, sent by medical, political and scientific societies, including many floral memorials from all parts of Germany and from several foreign cities. The American physicians in Berlin sent an exquisite wreath of Easter lilies and maiden-hair fern, bearing an inscription expressing the high esteem in which the American medical profession held the world-renowned pathologist, Rudolf Virchow. The assembly room was crowded with professors, physicians and officers. Among them were noticed Mommsen, Waldeyer, von Leyden, von Bergmann, König, many university professors and several city councillors wearing their golden chains of office. Deputations from the student societies were also present. After a short address by the Rev. Dr. Kertiss, eulogizing Virchow, Professor Waldeyer spoke upon Virchow's scientific work. Judge Albert Traeger, member of the Reichstag, discussed Virchow as a politician, while Burgomaster Kirschner extolled Virchow's work as a councillor of the city of Berlin, his activity in applying scientific truths for the benefit of the people, in organizing hospitals, drainage systems and museums. In the procession, which was unusually long, the Burgomaster and Councilmen followed the hearse, behind which were borne Virchow's orders and decorations on cushions. Student societies and University professors were also noted in the procession. The streets through which the procession passed were lined with people long before the hearse arrived. Virchow was buried in St. Matthew's cemetery, Schoeneberg, southwest of Berlin.

Possible Yellow Fever in Spain.—A number of cases, strongly resembling yellow fever in symptoms, have been reported at Pazos Bordel, Pontevedra, September 10.

The Seegen Prize.—Under the auspices of the Imperial Academy of Sciences, Vienna, a prize of \$1000 has been offered by Professor Joseph Seegen, for the best answer to the following question: "Is any part of the nitrogen of the albuminates which have undergone metabolism in the animal body eliminated either by the lungs or by the skin in gaseous form?" Essays may be written in German, French or English, and must be sent to the Academy of Sciences, Vienna, before February 1, 1904.

Obituary.—Dr. Pasternazki, professor of internal medicine in the Military Medical School at St. Petersburg, is dead.—Dr. Broes van Doert, the dermatologist, died recently at his home in Holland.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

August 30, 1902.

1. On Direct Endoscopy of the Upper Air Passages and Esophagus; Its Diagnostic and Therapeutic Value in the Search for and Removal of Foreign Bodies. GUSTAV KILLIAN.
2. A Case of Papillomatous Excrescences or Ozenic Incrustations, or Chalky Deposits, or Other Lesion Low Down in the Trachea. EDWARD LAW.
3. Discussion on the Diagnosis and Treatment of Foreign Bodies in the Upper Air Passages and Gullet. J. MACINTYRE, W. DOWNIE, W. T. THOMAS and DR. WILD.
4. Simplified Method of Operating for Deflection of the Cartilaginous Septum. D. GRANT.
5. Chronic Laryngitis; Correlation of Diagnosis and Treatment. N. C. HARING.
6. The Connection of the Isolated Respiratory Fibers of the Recurrent with the Sympathetic and Cardiac Nerves. A. ONODI.
7. A Discussion on the Ultimate Results of Surgical Operations upon the Frontal Sinus and Maxillary Antrum. M. LERMOYEZ, H. TILLEY, GRUNWALD, KILLIAN, D. GRANT, S. SPICER, L. H. PEGLER.
8. On the Operative Cure of Laryngeal Papillomata. G. MACDONALD.
9. Bromide of Ethyl Anesthesia in Operations in the Throat. A. B. KELLY.
10. Moure's Operation for Deflected Septum. L. H. PEGLER.
11. The Present State of the Ozena Question. L. GRUNWALD.
12. A Discussion on the Etiology and Diagnosis of Ethmoidal and Sphenoidal Suppurations. L. GRUNWALD, H. L. LACK, N. C. HARING, P. McBRIDE, G. MacDONALD, P. W. WILLIAMS, W. J. HORNE, A. BRONNER, S. SPICER, FELIX SEMON, H. TILLEY, DR. WILD, F. H. WESTMACOTT, A. ONODI, S. LODGE, JR.
13. The Study, Teaching and Prevention of Diseases of the Ear. WILLIAM MILLIGAN.
14. A Discussion on the Aims and Limitations of Intranasal Surgical Procedures in the Treatment of Chronic Nonsuppurative Middle-Ear Disease. P. McBRIDE, U. PRITCHARD, P. ROHRER, D. GRANT, L. LACK, S. SPICER, E. C. BABER, T. M. HOVELL, F. SEMON, H. TILLEY, C. H. FAGGE, J. K. LOVE, A. BRONNER, R. LAKE, W. H. KELSON, A. L. WHITEHEAD, H. L. PEGLER, W. MILLIGAN.
15. Remarks on Cholesteatoma of the Middle-Ear. D. GRANT.
16. On the Relation between the Formation of the Auricle of the Anthropoid Monkeys and Certain Congenital Malformation of the Human Auricle. F. ROHRER.
17. The Provision in London for the Education of the Deaf. A. THORNE.
18. The Treatment of Deafness of Middle-Ear Origin. C. WATSON.
19. Remarks on the Anatomy of the Temporal Bone. R. C. ELSWORTH.
20. Apparatus for Intratympanic Hot-Air Treatment of Certain Forms of Catarrh of the Middle-Ear. A. BRONNER.

1.—Killian discusses direct endoscopy of the esophagus and air passages. He speaks of the possible fallacies of the bougie and X-ray in the detection of foreign bodies and says direct inspection is the only reliable method. Local anesthesia with cocaine is sufficient for the introduction of the esophagoscope. Killian has removed a bone from the lower part of the gullet by means of the esophagoscope

in one case and in another he succeeded in breaking and removing piecemeal a tooth plate which was situated at a depth of 35 cm. Although one may obtain a view of the upper trachea with the Kirstein autoscope, Killian prefers using a straight tube of sufficient length and small enough in caliber to pass through the rima glottidis. In the adult, local anesthesia with a 25% alcoholic solution of cocaine and a preliminary injection of morphine is sufficient; in children it is best to give chloroform. We may, without fear, press the cocainized bronchi, which are highly elastic tubes imbedded in soft tissue, into the median line and bring the trachea, bronchus and primary branch into direct line for inspection. Bronchoscopy has been performed 20 times. In 11 cases in which the operation was conducted by Killian it led to a certainty of diagnosis 9 times. In 2 it failed, once because the foreign body was small feathers which were situated near the periphery of the bronchus and once because the foreign body, a pin, was imbedded in fibrous tissue. In 15 cases in which extraction was attempted, 13 were successful. [F. T. S.]

2.—Law reports a case in which laryngoscopy revealed a deposit on the walls of the trachea, the nature of which was doubtful; by bronchoscopy and probing the deposit was found to be chalky. [F. T. S.]

3.—MacIntyre, in a discussion on foreign bodies in the air passages and gullet, points out the great value of the X-ray, the esophagoscope, the bronchoscope and the telephonic probe. In some cases the electromagnet will prove useful for the extraction of extraneous substances. [F. T. S.]

4.—Grant's method of operating for deflection of the nasal septum consists in: Cocainizing both sides of the septum; straightening and transfixing with a pin after the method of Roberts; administration of nitrous oxide; cutting through the cartilage by means of Moure's shears, horizontally below the deflection, then obliquely in front of and below it, parallel to the ridge of the nose, the incisions not meeting below and in front and manipulating the cartilage at the incision so as to encourage over-riding. [F. T. S.]

5.—Haring divides chronic laryngitis into (1) systemic in connection with cardiac disease, cirrhosis of the liver, etc.; (2) with nasal disease, either the result of extension by continuity or of mouth breathing, caused by nasal obstruction; and (3) cases limited to the larynx, a very small class. He further divides the cases of chronic laryngitis into superior, middle and inferior, the latter of which are often neglected because of the difficulty of inspection. [F. T. S.]

6.—Onodi draws attention to the intimate connection existing between the isolated respiratory nerve fibers of the lower laryngeal nerve and the sympathetic and cardiac branches. [F. T. S.]

7.—Lermoyez treats acute frontal sinusitis by inhalations of mentholized steam; if this fails the sinus may be syringed by catheterizing its natural orifice. Removal of the head of the middle turbinated bone and curetting of the polypi facilitates drainage. When these methods have failed, the anterior wall of the sinus should be excised, the cavity curetted, and drainage through the nose established. The resulting disfigurement may be remedied by the injection of paraffin. Diplopia, due to interference with the superior oblique muscle, may be rectified by stretching the inferior rectus muscle of the affected side. The best operation for maxillary sinusitis consists in making a temporary orifice through the canine fossa for curetting and disinfection, and a permanent opening into the nose for drainage. [F. T. S.]

10.—Moure's operation consists in making a free incision through the septum nasi upward of an inch in length parallel with the floor of the nose, and another along the roof of the nose for about the same length. The wedge-shaped fragment thus outlined is forced over toward the roomy side of the nose with the finger. Pegler uses a

specially constructed cutting forceps and india rubber splints. [F. T. S.]

11.—Grunwald says that if properly examined, the secretion of all cases of *ozena* will be found to arise from focal disease of the accessory sinuses of the nose. None of the bacteria described as the cause of the disease has fulfilled the exigencies of a real pathogenesis, although the bacillus of Abel has a specific relation to *ozena* in that it causes the tenacious character of the secretion. Only radical focal treatment will cure the trouble. [F. T. S.]

15.—**Cholesteatoma of the middle-ear** is treated by dehydrating measures, unless pressure symptoms arise when operation is demanded. A free opening after the manner of Stack is made and the cavity inspected. In cases in which a shiny uniform membrane is found lining the cholesteatoma cavity, this should be preserved. Should the membrane be pulpy and not homogeneous it should be completely eroded and the cavity lined by skin grafts. [F. T. S.]

18.—Watson's method of treating **deafness of middle-ear origin** is as follows: A half dram of equal parts of rectified spirits and glycerine is instilled into the ear and the same quantity rubbed into the skin of and around the ear. After the excess of fluid has been removed 5 to 10 drops of warm myelocene is dropped into the ear and about 20 drops rubbed on the outside of the ear, the application occupying about 10 minutes. Jaw movements are employed because of their favorable action on middle-ear circulation, and the hearing is repeatedly exercised. This treatment is usually applied daily. The Eustachian catheter is employed at intervals. Mechanical appliances may be substituted for the digital manipulations and pneumatic massage of the membrane conducted simultaneously in the outer ear and in the middle ear through the Eustachian tube may be utilized. The principles of this treatment are the promotion and maintenance of a more vigorous circulation in the middle-ear thorough aeration of the nasopharynx and middle-ear and the restoration of a greater degree of flexibility to the tympanic membrane and associated structures. [F. T. S.]

MEDICAL NEWS.

September 13, 1902. (Vol. 81, No. 11.)

1. Empyema in Infants and Children; Its Frequency, Etiology, Symptomatology and Prognosis. HENRY KOPLIK.
2. Surgical Treatment of Empyema. A Report Based on Seventy-five Cases. Observed Chiefly in St. Mary's Hospital for Children. CHARLES N. DOWD.
3. Pathology of Empyema. DAVID BOVAIRD, JR.
4. Bronchiectatic Abscess of the Lung: With the Report of a Case Treated Surgically With Success. C. R. L. PUTNAM.
5. A Case of Hepatic Abscess. EMMA W. DEMAREE.
6. The Use of Simple Microscopical Methods by the General Practitioner. ROBERT L. PITFIELD.

1.—Koplik states that the greatest number of cases of empyema occurs before the fifteenth year. Fully 40 per cent. of the pleurisies in infants and children are purulent. In adults only 5 per cent. of the pleurisies are of this nature. The greatest frequency is found to occur in the male sex. Bilateral involvement was found in 2 or 12 per cent. of the author's cases. [T. M. T.]

2.—Dowd mentions: (1) Simple cases in which the treatment is as follows: Excision of about 1½ inches of the seventh or eighth ribs in the posterior axillary line; light ether anesthesia is usually employed; the purulent coagula are removed; short rubber tubing cut partly across, doubled and held by large safety pins, is used for drainage; abundant gauze dressing is applied and changed when saturated. (2) If the patient's condition contraindicates general anesthesia an incision into the chest may be made between two ribs under eucaïne anesthesia. (3) Aspiration is only used to give temporary relief in patients who are in great distress from the pressure of the fluid or temporarily to relieve the second side of a double empyema after the first side has been opened. (4)

The patients are allowed out of bed as soon as practicable and the expansion of the lung is encouraged by forced expiration. (5) Irrigation is only used where there is a foul smelling discharge from necrotic lung tissue. (6) Secondary operations are not done until good opportunity has been given for healing; usually 3 or 4 months should have elapsed after the primary operation and there should have been no noticeable improvement for about a month. (7) In the secondary operation the expansion of the lung should be encouraged by incising, stripping back and, if necessary, removing portions of the thickened pulmonary pleura. (8) The examination of 44 cases at long periods after operation indicates that recovery is usually complete in the simple cases and that there is surprisingly little deformity in most of the severe cases. [T. M. T.]

3.—Bovaird emphasizes: (1) The frequency in children. (2) The frequency of bilateral cases. (3) The impossibility of drawing sharp distinctions between serofibrinous pleurisy and empyema. (4) The creamy consistency of the exudate in many cases. (5) The frequency of sacculated effusions. (6) The frequency of pneumonia, especially bronchopneumonia as a preceding or accompanying lesion. (7) So far as concerns the bacteriology of empyema, the pneumococcus is present in the great majority of cases in children, especially in the thick creamy exudate. The streptococcus or staphylococcus pyogenes is found in a much smaller percentage of cases, especially in those not associated with pneumonia and characterized by this purulent exudate. (8) Tuberculosis is present in but a small percentage (6 per cent.) of cases. [T. M. T.]

4.—Putnam gives the principal conditions from which **bronchiectatic abscesses** must be differentiated: (1) Tubercular cavities; (2) lung abscess; (3) gangrene of the lung; (4) actinomycosis; (5) hydatid cysts. The author quotes from Borchet, who states that he had four deaths in cases between the ages of 21 and 52 years (one 3 months after operation) and one cure (requiring 2 years for healing of wound) making the outlook for adults seem bad. [T. M. T.]

MEDICAL RECORD.

September 13, 1902.

1. The Surgical Treatment of Chronic Bright's Disease. J. A. SCHMIDT.
2. What Shall We Do With Our Consumptive Poor. Being a Discussion of Dr. Knopf's Paper. ALFRED MEYER.
3. The Primary Treatment of Railway Injuries. J. N. BAKER.
4. A Further Contribution to Our Knowledge of Electric Ozonation as a Remedial Agent, Especially in the Treatment of Tuberculosis. G. LENOX CURTIS.
5. Two Unusual Complications Following Cataract Extraction: (1) Death After Cataract Extraction From Diabetes; (2) Delirium Tremens Following Extraction of Cataract. THOMAS R. POOLEY.
6. Sanitary Protection For Rural Districts. HARVEY B. BASHORE.
7. Hydrotherapeutics in Gastro-intestinal Diseases. GEORGE MANNHEIMER.

1.—Schmidt concludes a paper on the **surgical treatment of chronic Bright's disease** as follows: (1) In acute infectious diseases, **anuria with uremic symptoms** threatening the life of the patient, can be successfully combated by **capsular incision** or renal cleavage, which relieves congestive swelling and excess of intrarenal pressure. Operation on one side is sufficient to bring about an abundant urinary secretion, followed by a subsidence of the alarming general features. Whether the other kidney gains time to recuperate and resume its function, or whether reflex action plays a predominant role, are debatable points. At all events, nature seems to get along with a small portion of functioning kidney tissue. (2) **Anuria with uremic symptoms**, occurring in the course of chronic Bright's disease, has afforded an occasion for surgical procedure. To recognize such an indication on reasons which are analogous to those above mentioned is, of course, a matter of individual judgment. Temporary relief, in some instances, has been gained, a permanent cure however, has never been effected. (3) When the kidney has been operated

upon directly for the cure of chronic Bright's disease the outcome has been a failure. The apparent benefit manifested in the disappearance of dropsy, dyspnea, etc. occur just as regularly in the ordinary course of the treatment by medication and capillary drainage, or puncture. (4) In exceptional cases colicky pains and hematuria are caused by chronic Bright's disease. Capsular incision, or cleavage of that kidney to which the disturbances were traceable, has been attended by excellent results; there can be no doubt that, when medical expedients have failed, surgical interference has succeeded in checking the hemorrhages and alleviating the pains, but it does not inhibit the progress of chronic Bright's disease. (5) Nephropexy may cure the ailments incident to movable kidney; it may remove albuminuria, if this be the result of local irritation, consequent upon the displacement; if, however, the movable kidney is affected by chronic Bright's disease, this affliction will remain uninfluenced by operation. [T. L. C.]

2.—Meyer discusses the recent paper of Dr. Knopf on: **What shall we do with our consumptive poor?** The first difficulty, that of inadequate provision for these cases, has been growing rapidly less during the last few years, as is also the second difficulty, the advanced and hopeless stage at which many patients begin the active fight for recovery because of the earlier recognition of the disease. He agrees with Dr. Knopf in most particulars, especially accentuating the point that a large proportion of cures may be effected without exhausting journeys or complete isolation from the patient's family. He believes that finally each county may solve its own tuberculosis problem at home. To make this possible he suggests: (1) Institutions beyond the city limits for the incipient and presumably curable cases of tuberculosis, of which the Bedford Sanitarium of the Montefiore Home is a good example. (2) Institutions within the city limits for advanced or presumably incurable cases, like the Blackwell's Island institution in charge of Commissioner Folks, of the Department of Charities, New York City. (3) A series of separate wards in the city hospitals to act as clearing houses for cases of doubtful diagnosis and prognosis. (4) A system of financial aid to the families of adult patients to encourage early treatment. [T. L. C.]

3.—Baker discusses the primary treatment of railway injuries, and emphasizes the following points: (1) The importance of an understanding and appreciation of the nervous phenomena of shock. (2) The value of the saline infusion, intravenously administered, for the relief of this condition in its graver forms. (3) The importance of prompt surgical interference immediately upon the establishment of reaction. (4) The importance of a plantar flap where the foot is involved or a palmar flap where the hand is involved. Never uselessly sacrifice tissue; never sacrifice a joint; and ever strive to leave your patient with a smooth, painless, noncontracted, noncicatized stump. [T. L. C.]

4.—Curtis presents a further contribution to our knowledge of electric ozonation as a remedial agent, especially in the treatment of tuberculosis. By the method which he describes he claims that ozone is forced into the body, taken up by the circulation and carried to the tissues wherein pathological processes may be at work. There its effects are manifested in the arrest of the morbid operation and restoration of the structure and function of the affected organ. [T. L. C.]

5.—Pooley reports 2 unusual complications following cataract extraction. In the first patient death resulted from diabetes one week after the extraction. In the second patient delirium tremens set in 4 days subsequent to the removal of the cataract. [T. L. C.]

NEW YORK MEDICAL JOURNAL.

September 13, 1902.

1. The Diagnostic and Therapeutic Value of Ureteral Catheterization: With Report of a Case.

LOUIS GROSS.

2. What Means, Other Than Operative, Have We for Preventing and Combating Inflammation of the Mastoid Cells? SAMUEL THEOBALD.

3. A New Method of Staining the Malarial Parasites. With a Description of the Staining Reactions.

CHARLES F. CRAIG.

4. Ovarian Tumors: Suppuration and Malignant Degeneration. G. E. CRAWFORD

and J. LYNN CRAWFORD.

5. The Identification of Human Blood. JUSTIN D. LISLE.

6. A Case of "Blackwater" Fever From the Philippines. FREDERICK M. HARTSOCK.

7. The Logical Status of Vaccination and the Exclusion of Unvaccinated Children From the Public Schools. ALFRED W. HERZOG.

1.—Gross reports a case of chronic gonorrhea with prostatitis, in a man of 33, demonstrating the great value of ureteral catheterization. In diagnosis, ureteral catheterization is of value to determine whether the bladder or kidney is affected; the presence or absence of a kidney; which kidney is involved; the site of the lesion; the functional capacity of each kidney; the presence of a calculus in the ureter or pelvis of the kidneys and its exact location; the presence of strictures in the ureter and their exact location; the diagnosis and site of ureteral fistulæ; the presence of pyo-ureter; a differential diagnosis between diseases of the kidneys and surrounding organs; tuberculosis of the kidneys, at times; the diagnosis of pyelitis, pyonephritis, pyonephrosis, hydronephrosis, movable kidney, neoplasms of the kidney and renal lithiasis; and abnormal congenital conditions of the ureter. Therapeutically, ureteral catheterization is of value for curing pyelitis and some cases of pyonephrosis and hydronephrosis; for draining pocket formations; for dilating strictures of the ureter; for dislodging small calculi of the ureter; for draining the kidney after nephrotomy; for preventing injury to, and stitching together of, the ureter in certain operations; for preventing and curing renal fistulæ; and as a guide to certain operations on the pelvis of the kidney. There is little danger of infection, if the instruments are carefully disinfected and the ureter and bladder thoroughly irrigated. [M. O.]

2.—For preventing and combating inflammation of the mastoid cells, Theobald advises building up the system by tonics and eliminating habitual constipation. Besides, the ear should be kept clean and dry. He prefers using bichloride of mercury, in solutions of from 1 to 8000 to 1 to 4000, or boric acid in saturated solutions. As a tonic he uses elixir of the phosphates of iron, quinine and strychnine. Further, for the relief of pain, he uses a few drops of a solution containing atropine and cocaine, dropped into the ear, and gives a purgative. He also uses sodium pyrophosphate or salicylate. Besides his medicinal treatment, he advises incision of the drum head. This constitutional treatment, with the addition of mercury given for its specific effect upon the system, often suffices. By this means operation frequently becomes necessary. [M. O.]

3.—Craig believes that, for the diagnosis of the malarial parasite, there is no method so sure, so simple, and so scientific as the examination of fresh blood. For this he uses 2 staining solutions, methyl violet and eosin. The details of his technique follow. [M. O.]

4.—After reviewing the literature of ovarian tumors, the Drs. Crawford report 2 cases in full, one of the patients dying after operation. [M. O.]

5.—Lisle says that we have 4 reactions for the detection of human blood, microscopical examination of the blood-corpuscles, whereby we are able to distinguish the blood of mammals from that of other animal species; the production of hæmin crystals, by which we can identify blood as blood; spectroscopical examination of a solution of blood; and the guaiacum test, a reaction which is very untrustworthy, except when compared with the result obtained from the 3 others. He describes a biological test, using serum from rabbit's blood, which contains the special precipitum of human blood. This reaction, the technique of which is given in detail, has proved most valuable in the identification of human blood. [M. O.]

6.—Hartsock reports a case of blackwater fever in a soldier of 22, occurring at Cebu in the Philippines, with fatal termination. Quinine had no influence in this case. Post mortem cultures were negative. [M. O.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

September 11, 1902. (Vol. CXLVII, No. 11.)

1. The Symptoms and Treatment of Hepatic Cirrhosis in the Light of Seventy-Eight Autopsies.
GEORGE G. SEARS and FREDERICK T. LORD.
2. The Clinical Value of the Iodine Reaction in the Leucocytes of the Blood. EDWIN A. LOCKE.
3. Some of the Orthopedic Conditions of the Newborn Demanding Early Surgical Treatment.
CHARLES F. PAINTER.
4. Cirrhosis of the Liver in Childhood.
JOHN LOVETT MORSE.

1.—The more important conclusions drawn from the analysis of cases reported by Sears and Lord may be summarized as follows: (1) Hepatic cirrhosis is, in a majority of instances, but one expression of the effect of a systemic poisoning. The generative changes in other organs are to be regarded as part of this general process, rather than as complications; (2) the splenic tumor and dilated veins are due in part to portal obstruction, but also seem dependent on the underlying toxic cause, since they are occasionally associated with slight hepatic changes; (3) dilatation of the vessels may have some effect as a compensatory mechanism, but is rarely adequate to prevent ascites; (4) persistent jaundice and hemorrhage from the digestive tract seldom occur until the connective tissue formation is well advanced; (5) hemorrhage was found to be almost invariably due, when a full pathological description was given, to some gross lesion, which in most cases was an esophageal varix; (6) ascites occurred in practically the same proportion of cases in all 4 classes and was a late symptom. Its early appearance was, with rare exceptions, associated with some form of peritoneal inflammation; (7) continuous fever was never found, except in the presence of complications. A brief elevation of temperature occasionally occurred, for which no cause could be discovered; (8) no evidence was found to show that the course of the disease was not always progressive, but a high grade of cirrhosis was sometimes reached without incapacitating the patients; (9) surgical treatment may be indicated in a very small proportion of cases, but conclusive evidence is still lacking to show that the ascites in the cases successfully operated upon was due to hepatic cirrhosis and not to coincident conditions. [T. M. T.]

2.—The results of Lock's examination of the blood in various diseases with reference to the iodine reaction may be given as follows: (1) In septicemia, always marked; (2) in abscesses and local sepsis (non-tubercular) present, except in the early stages. The intensity varies within wide limits, according to the amount of toxic absorption; (3) in appendicitis variable, according to the extent and character of the inflammatory process. The action is negative during the intervals between attacks, absent or faint in the early stages of an acute attack, fair to marked in those cases which have progressed to the stage of abscess formation or peritonitis; (4) in general peritonitis uniformly striking; (5) in empyema invariably positive, generally of a marked type; (6) in dry and serous pleurisy always wanting; (7) in pneumonia (non-tubercular) present, and usually very marked in character. Following crisis, the iodophilia within a few hours becomes less marked, and if the resolution be frank, disappears in from one to 2 days. Abscess of the lungs and pulmonary thrombosis in the last stages give a positive reaction; (8) in simple bronchitis negative; (9) in enteritis, with severe symptoms, usually faintly positive; (10) in tonsillitis faint to marked, according to the severity of the constitutional symptoms; (11) in salpingitis positive in the presence of abscess formation or marked inflammation; (12) in gonorrheal arthritis, positive, though not striking; (13) in articular rheumatism negative; (14) in gallstones variable, apparently depending upon the presence or absence of toxemia; (15) anemia: (a) In pernicious anemia, in the late stages, a faint reaction; (b) in chlorosis, negative;

(c) in secondary anemia, of a very marked character, often positive; (16) in malignant diseases positive only in the late stages; (17) in acute intestinal obstruction negative unless the bowel becomes gangrenous; (18) in cardiac disease occasionally a faint reaction in the presence of badly broken compensation; (19) in diabetes mellitus positive only in the cases of coma and complication of gangrene; (20) in about 50 per cent. of the cases of malaria positive, often marked; (21) in nephritis in more than half the cases a faint reaction; (22) in typhoid fever positive in about 50 per cent. of cases, usually only when complications or pulmonary disease, furunculosis, hemorrhage or perforation are present; (23) in tuberculosis, uncomplicated, always negative; (24) in hernia, as in acute intestinal obstruction, negative, unless septic absorption has taken place in consequence of gangrene; (25) in extra-uterine pregnancy, with rupture, negative. [T. M. T.]

4.—Morse gives the following points in favor of primary cirrhosis: (1) the constant occurrence of cirrhosis in obstruction of the bile-ducts in infants, compared with its rarity after obstruction of the large ducts in adults; (2) the large size of the liver, which is usually small when due to obstruction in later life; (3) the enlargement of the spleen, which does not occur in uncomplicated biliary obstruction. It seems reasonable to suppose, therefore, that the disease is due to irritants derived from the mother, which cause a cirrhosis and cholangitis, the cholangitis descending and obliterating the larger ducts. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

September 13, 1902.

1. Linnaeus as a Physician. LUDVIG HEKTOEN.
2. Injection Treatment of Syphilis by Means of a New Mercurial Formula. M. L. HEIDINGSFELD.
3. Treatment of Tubercular Peritonitis, with Report of a Unique Case. M. F. PORTER.
4. Further Experiences with a Modification into the Operative Method for Inveterate Relapsing and all Aggravated Form of Pes Equinovarus.
A. F. JONAS.
5. The Prevention of Deformity. W. R. TOWNSEND.
6. The Legal Status of the Term "Reputable" as Applied to Dental Colleges. C. C. CHITTENDEN.
7. The Symmetry of Our Visual Apparatus as a Dual Organ. A Plea to Modify the Customary Notation of the Ocular Meridians. H. KNAPP.
8. Amebic Dysentery in Michigan. GEORGE DOCK.
9. What Cases of Placenta Previa Can be Best Treated by Cesarean Section. F. D. DONOGHUE.
10. The Advantages of the Vaginal Operation in Obese Patients. W. H. HUMISTON.
11. Post-Operative Intestinal Paresis. F. H. WIGGIN.
12. The Influence of Biliary Acids on Surface Tension, etc.
C. D. SPIVAK.

1.—Hektoen contributes an article entitled *Linnaeus as a Physician*. In the concluding paragraph he writes as follows: In terminating this fragmentary sketch of a small part of the work of Linnaeus it seems to me that he is fully entitled to a place among the founders of the scientific school of medicine whose object it is to understand the nature of disease and to find and remove the cause of disease. The underlying principles, the scope and result of his teachings and his labors entitled him to this distinction. At the same time as his predominating influence on the study of natural science in general, both directly, especially in Sweden, and indirectly, advanced the scientific study of medicine, he himself and his pupils made distinct and permanent additions to our knowledge of diseases. He fully recognized and urged the importance of theoretical investigation in medicine, unprejudiced observation at the bedside, anatomical inquiry and rational therapy. Finally, he saw glimpses of great etiological truths in regard to infectious diseases and at a time when the

great and populous microscopic world was indeed a mundus invisibilis. [F. J. K.]

2.—Heidingsfeld writes on the injection treatment of syphilis by means of a new mercurial formula. He recommends the following formula:

Lanolini	2
Hydrargyri bidistil	6
Conterature uspue ad perfect extinctionem hydrargyri	
Liq. albolene	2

He gives the injection every fourth day, using a grain dose (which approximately contains 1-1/3 grains of metallic mercury) and continues until 15 grains have been administered. [F. J. K.]

3.—Porter discusses briefly the treatment of tubercular peritonitis and reports a unique case. It is thought that the curative effect of light and air after the abdomen is opened is generally underestimated. The ascitic forms of the disease have yielded the best results from operative interference and the ulcerating and caseating forms the worst results. Other tubercular foci are benefited by the opening of the peritoneum. In operating for this condition the incision should be free, adhesions should not be disturbed unless for the removal of tubercular deposits or for the relief of bowel obstruction, drainage should not be employed, irrigation with hot water may be beneficial. Chemical antiseptics should not be used unless there is a mixed infection. The abdominal cavity should be freely exposed to light and air for from 10 to 15 minutes. The author believes that both the X-rays and the ultra-violet rays of Finsen will be found of great value in this condition. The case reported is that of a girl, 14 years of age, who suffered from tubercular ascitic peritonitis of the lower abdomen and pelvis, accompanied by hernial protrusion, the sac of which was the seat of tubercular disease. This case was cured by excision of the sac, obliteration of the canal, median laparotomy and removal of the fluid.

[J. H. G.]

4.—Jonas offers a modification in the operative treatment of inveterate relapsing and of aggravated forms of pes equinovarus. His conclusions are as follows: (1) The triangular flap is indicated in cases of pronounced talipes equinovarus wherever an open operation is necessary to overcome the deformity which involves the mediotarsal joint. (2) The astragaloscaphoid ligaments and capsule must not be incised or torn. (3) When the division of the soft structures is not sufficient to overcome the varus deformity an incision over the head and neck of the astragalus must be made and the bursa extirpated. (4) The neck of the astragalus must be divided transversely with an osteotome. If this is not sufficient, then remove a wedge from the neck; if that fails, remove the head. (5) If the astragalus has rotated so that its superior articular surface is inclined outward, and a replacement is impossible, the internal lateral ligament must be divided, which can be done through the opening made by the triangular flap. (6) The best possible guarantee against relapse is to divide soft parts and bone, so that the foot falls into its natural position with little or no pressure. [J. H. G.]

5.—Townsend urges, particularly upon the general practitioner, the prevention of deformities. It is shown that many of the cases of deformity which come to the surgeon for correction could have been prevented by the removal of the secondary causes which produce them, such as gravity, the action of nonparalysed muscles, the arrested development and growth of all tissues in proximity to the muscles paralysed, the results of weight applied to weakened structures, etc. More than half of the deformities which require correction could have been prevented.

[J. H. G.]

6.—Chittenden discusses the legal status of the term "reputable" as applied to dental colleges. He contends that "the only way in which this country can establish and maintain its supremacy in dental educational standards over

the rest of the world, is by a concerted national legal standard being made by the legal guardians on whom the sacred trust is imposed—and these guardians must deserve and command the confidence and co-operation of the colleges, as well as the profession at large. [F. J. K.]

7.—Knapp contributes an article entitled the symmetry of our visual apparatus as a dual organ; and makes a plea to modify the customary notations of the ocular meridians. This modification from the old system into the new would necessitate the following: (1) It will require a new plate on the spectacle frame for the left eye, placing zero on the nasal and 180 degrees on the temporal side. (2) A diagram of the prescription with the same change for optician marked symmetrical notation, to distinguish it from the customary notation, which may be called homonymous. (3) Perimeter charts marked symmetrically, i. e., zero at the nasal end of both horizontal meridians. Counting the meridians from the inner canthus up, along the brow, temple and cheek to 350 degrees or zero at the inner canthus. When these changes are made there will be no confusion and we shall be accustomed to the new system in less than a week. [F. J. K.]

8.—See Philadelphia Medical Journal, June 21, 1902, page 1093.

12.—Spivak discusses the influence of biliary acids on surface tension. His experiments were based on the test which depends upon the following: A pinch of flowers of sulphur thrown on water or bile-free urine will float on the surface. On the addition, however, of one drop of bile to a quart of water the sulphur will at once sink to the bottom. From his experiments he notes the following: (1) The specific gravity of the fluid has no influence on the accuracy of the test. (2) The reaction of the fluid has no effect on the test. (3) In order to obtain correct results, the fluid must be clear. Cloudy or turbid urine must be filtered. (4) The urine must be free from bubbles. (5) Urine examined immediately after it is voided gives invariably the reaction for bile. This was a source of great annoyance to me until I found out that heat reduces surface tension. The urine must, therefore, be cooled off before the test is made. (6) In several cases where the reaction for bile pigments by Gmelin's tests could not be obtained, the presence of bile acids could be demonstrated by the sulphur test. (7) In cases of syphilis of the liver, the urine gave the reaction for bile acids. (8) The urine of several patients in advanced stage of tuberculosis, with swelling of the lower extremities, gave the reaction for bile acids. (9) The stomach contents of a patient which I removed on two consecutive mornings, and which consisted almost entirely of bile, did not give the sulphur reaction. (10) Urine of three cases of pregnancy in their sixth, eighth and ninth months, respectively, gave the bile acid reaction. (11) After having experimented with more than 150 different powders, I have found that boracic acid, iodoform, acentanilid, salol, calomel, salicylate of bismuth and salicylic acid possess this property, as does sulphur, only in a feebler degree. [F. J. K.]

AMERICAN MEDICINE.

September 13, 1902.

1. Surgical Features of Typhoid Fever.
THOMAS McCRAE and JAMES MITCHELL.
2. The Extraction of Metallic Fragments from the Vitreous Chamber. S. D. RISLEY.
3. Eyestrain and Epilepsy. A Preliminary Report.
GEORGE M. GOULD and ARTHUR G. BENNETT.
4. The Etiology of the Summer Diarrheas of Infants.
C. W. DUVAL and V. H. BASSETT.
5. Are the Specific Biologic Properties of Milk Concerned in Nutrition. CARLYLE POPE and
TORALD SOLLMANN.
6. Loss of Sleep. J. ALLEN GILBERT.
7. Cases of Carcinoma and Sarcoma Recently Treated by Electric Sterilization. G. BETTON MASSEY.

1.—McCrae and Mitchell have thus summarized the cases of typhoid fever with surgical features which have been treated in the Johns Hopkins Hospital in the last 2 years. (1) There have been treated 275 cases. (2) Of these a certain number had unimportant complications, as boils or abscesses, the cultures from which in every instance yielded pyogenic cocci. (3) Peritonitis and perichondritis have been seen occasionally, always subsiding without surgical interference. (4) Glandular affections, especially mastitis, occurred but were not serious. (5) Abscess of the liver occurred once with recovery, the cultures being practically negative. (6) There have been symptoms of cholecystitis in 5 cases, of which 3 subsided without operation; 1 patient was operated upon and recovered, while in one the gall-bladder ruptured and general peritonitis resulted in death. (7) Appendicitis was suspected on admission in 3 cases and developed once during the course of typhoid fever. (8) Perforation of the intestine occurred in 8 patients. Of these 7 were operated upon with 2 recoveries, a third dying of toxemia after a week. All of these 7 were recognized within 9 hours, except 2, in which hemorrhage of the bowels accompanied the perforation. In one case operation was not advised because the patient was evidently in extremis. (9) Exploratory laparotomy was done in 2 cases in which no perforation was found. In one the symptoms proved to be due to intestinal hemorrhage; in the other to a low grade of peritonitis. The first patient died; the other recovered. (10) Eleven patients with suspicious abdominal symptoms were not operated upon. Of these 2 died and the autopsies showed no perforation. The remaining 9 recovered.

[T. L. C.]

2.—Risley discusses the extraction of metallic fragments from the vitreous chamber. The clinical notes of three cases are given. It is Risley's opinion that in the present state of our experience, in absence of definite knowledge as to the presence or exact location of the metallic fragment the powerful giant magnet is an invaluable aid; but that given the knowledge afforded by the skia-graph in exactly localizing the foreign body, the less powerful instruments are efficient, less costly, and more convenient in daily routine of office and hospital practise.

[T. L. C.]

3.—Gould and Bennett have examined the eyes of 78 patients in the Craig Colony for epileptics. Sixty-seven out of the cases considered had astigmatism and about one-half of the entire number of patients had unsymmetric astigmatism. These writers state that this incidence is about 20 times as great as in ordinary patients. The patients were fitted with glasses and their subsequent histories will be carefully recorded. [T. L. C.]

4.—Duval and Bassett have made a careful study of the bacterial flora in a large number of cases of summer diarrhea in infants and from 42 typical cases have succeeded in isolating from the stools the bacillus dysenteriae of Shiga. This organism was also secured from scrapings of the intestinal mucosa at autopsy and in 1 case from the mesenteric glands and liver. They conclude that the summer diarrheas of infants are caused by intestinal infection with bacillus dysenteriae (Shiga) and therefore are etiologically identical with the acute bacillary dysentery of adults. A full report of their investigation will be published in the *Journal of Experimental Medicine*. [T. L. C.]

5.—Pope and Sollmann discuss the question, "Are the specific biological properties of milk concerned in nutrition?" Their investigations lead them to conclude that the milk and serum reactions do not seem to lend themselves, at present, to the solution of any of the questions which are suggested by the specific nutritive quality of the milk. [T. L. C.]

6.—Gilbert reports the results of his studies of metabolism, mental acuity, etc., upon 3 healthy men who were kept awake continuously for 90 hours. [T. L. C.]

7.—Massey reports 15 cases of carcinoma and sarcoma treated by electrical sterilization. He states that 9 patients appear to be cured, 2 were temporarily helped and 4 died shortly after the application was made. The cases were widely different in nature and those which terminated fatally were in a desperate condition when treated.

[T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

May 22, 1902.

1. Concerning Endocarditis. M. LITTEN.
2. Concerning Pneumococcus Sepsis. A. PROCHASKA.
3. The Discussion Concerning Enteroptosis and Its Costal Sign. B. STILLER.
4. On Hydrotherapy in Tabes. S. MUNTER.
5. Remarks Concerning the Preceding Article.

A. EULENBURG.

1.—Litten opens with the statement that he was impelled to write this paper by the recent article of Lenhartz. He gives a review of his previous classification of endocarditis into: (1) Benign; (2) septic ulcerative and (3) nonseptic ulcerative and repeats the distinctions which he has previously made between these. A study of cases of heart disease in his polyclinic showed that about 400 cases of this kind were seen in 30,000 patients. Thirty to 35 per cent. of these 400 persons certainly had acquired the heart disease as a result of rheumatism. In 30 per cent. more, one or the other causes could be demonstrated. In the remaining 30 to 35 per cent. no cause could be determined. He insists that the name ulcerative endocarditis should be dropped and that it should be called septic instead. In septic endocarditis he insists upon the importance of septic thrombi; while in malignant nonseptic endocarditis thrombi may occur, they never lead to suppuration. If the joints are involved, the inflammation is never purulent. The same is true of a pericarditis or pleurisy, while directly the contrary conditions are true of septic endocarditis. Panophthalmitis, septic processes of the skin and phlegmon occur in the septic form, but do not in the nonseptic malignant form. In both forms micro-organisms have been found—more commonly in the suppurative form than in the other variety. The reason that micro-organisms are less commonly found in the rheumatic malignant form is that the micro-organism causing rheumatism is not well known and is perhaps very difficult to cultivate; but in 19 cases of the malignant nonsuppurative form of endocarditis Litten has in 7 instances obtained positive bacteriological results and 2 of these were certainly rheumatic. In both the latter he found the streptococcus parvus; in other cases he found the ordinary streptococcus and the pneumococcus. It is not possible to classify cases of endocarditis by the discovery or the nondiscovery of micro-organisms or by the characteristics of the micro-organisms. [D. L. E.]

2.—Prochaska describes 4 cases in which he believes that a general pneumococcus sepsis was present. All 4 cases presented the appearance of a primary pulmonary condition, but they did not develop signs of pneumonia. In the first case there was an acute febrile bronchitis, followed by an acute hemorrhagic nephritis. Pneumococci were found in the aseptically collected urine and the same micro-organisms in the sputum and in the circulating blood. In the second and third cases there was a moderate bronchial attack, with high fever and chill in the beginning. The symptoms gradually disappeared and the bronchial signs vanished, but after a few days there were repeated chills again, without new physical signs. Both the patients recovered. Both had pneumococci in the circulating blood. Malarial plasmodia were absent. The fourth patient had bronchitis, which was improving; and after four weeks there was suddenly an onset of fever, with cyanosis and signs of collapse. The blood was loaded down with pneumococci and the organisms could easily be demonstrated in smear preparations. The patient died and the post mortem showed no pneumonia, but a recent bilateral hypostasis. The physician who had treated him outside said that he had never had signs of pneumonia. No other changes were found except beginning verrucose endocarditis of the mitral valve. The author thinks that there was no reason to consider that the infection took place through the tonsils in

these cases. He is, on the contrary, inclined to believe that it took place through the bronchi, because of the marked evidence of bronchitis in the beginning of each of the attacks. [D. L. E.]

3.—Stiller goes into a further discussion of the importance of his sign, particularly considering the recent article of Blecher, who referred to 4 cases in which gastroplication had been carried out and one case of colopexy. In these the symptoms had been practically relieved; and Blecher believes this to indicate that the gastroplication and colopexy were themselves the cause of the symptoms, and not—as Stiller believes—merely parts of a general neurasthenic condition. The latter author admits that the gastroplication and enteropexy do themselves aid in the production of symptoms; but he again insists, as he has many times before, that the main condition is one of general neurasthenic relaxation. (To be continued.) [D. L. E.]

4.—Munter gives a detailed discussion of the use of hydrotherapy in tabes. Some of the recommendations which he makes are that in the treatment of pain, salt-baths that are not too concentrated (1 per cent.) and are of indifferent temperature are more valuable than more concentrated baths that have a higher or a lower temperature. The baths mentioned may be used for three-quarters of an hour to an hour. The mild warmth of the bath decreases irritation and is stimulating at the same time. Short cold baths have a tonic effect and are stimulating, but are also exciting. If there is a tendency to very ready exhaustion, the author gives these baths for only 10 or 20 minutes at a time; and the temperature should be kept within very narrow limits. If the stimulation may be increased a little, he gives a half-bath, which is gradually cooled down several degrees. He does not use rubbing during the bath, as too much heat is lost by this and it acts as an irritant upon the nerves. The bath is followed by a rapid douching of the extremities with cold water. This douching should not last more than 5 or 10 seconds. The use of complete or half packs should be watched with care, as their results are likely to be very uncertain in tabes. Packs at lukewarm temperature are commonly, but falsely, considered to be good treatment. They readily cause chills and increase the pain. One should be very careful of cool baths in tabes, because they very easily increase the pain. For the pain, ataxia, paresthesia, restlessness and other nervous disturbances, the author has frequently had good results from the use of faradic baths with slowly increasing current. The employment of higher temperatures in tabes is also often of doubtful value. Steam baths should never be used. The sand bath had no indication. The electric-light bath has no especial usefulness, and often increases the pain. A dry hot-air bath is not infrequently useful. In closing, Munter states that very satisfactory results may be obtained from the hydrotherapeutic treatment of tabes. [D. L. E.]

May 29, 1902.

1. Some Atypical Appearances in the Course of Secondary Syphilis. S. SCHOENBORN.
2. Two Cases of Cancer à deux, Together with a Contribution Concerning the Statistics of Carcinoma. Preliminary Communication. RADESTOCK.
3. The Etiology of Melliturias in Relation to Recent Researches. H. ROSIN.
4. Concerning Endocarditis. (Conclusion.) N. LITTEN.
5. The Teaching Concerning Enteropexy and Its Costal Sign. (Conclusion.) B. STILLER.

1.—Schönborn first reports a case in which it was impossible to reach a definite conclusion as to whether an eruption was due to scarlet fever or was a mercury erythema. He notes a case of very striking idiosyncrasy to mercury in a patient with florid syphilis. [D. L. E.]

2.—The cases reported were as follows: A woman of 37, with a family-history of carcinoma, died with cancer of the ovary. Seven years later her husband exhibited carcinoma of the intestine and died after a few years. In the second case, a woman, 70 years old, died of carcinoma of the esophagus. Three weeks after her death, her husband, 77 years old, showed the signs of cancer at the same point of the esophagus and soon died, after a rapid course. Radestock directs attention to the fact that 7 years elapsed after the death of the wife, in the first case, before the husband showed the disease; and that, in the second, both persons were of advanced years. He then provides some statistics

taken from the city of Chemnitz, which show the extremely large number of cases of carcinoma in iron-workers, as compared with others. He believes that this question of carcinoma in iron-workers should be further investigated. [D. L. E.]

3.—To be continued.

4.—Litten makes some very critical remarks concerning the views of Lenhartz. The latter author stated that, if micro-organisms are found in the blood, an endocarditis must be considered septic. Litten says that pneumococci are practically always found in the blood in pneumonia, if proper methods of investigation are adopted. He then asks whether Lenhartz would consider all cases of pneumonia septic or whether only those cases are septic in which endocarditis occurs; and he very properly inquires where Lenhartz would find himself with his teaching if to-morrow some one were to discover definitely a cause for acute rheumatism and were to provide a satisfactory method for demonstrating it in the circulating blood. As to the occurrence of bland infarcts and suppurating infarcts in the same case, Litten admits that such things may be found; but these are evidences of mixed infection or of the existence of a benign endocarditis in association with sepsis. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

June 3, 1902. (No. 22.)

1. Treatment of Gastric Ulcer. W. FLEINER.
2. An Experimental Contribution to the Knowledge of the Formation of Sugar in the Diabetic Organism. E. NEBELTHAU.
3. New Observations in Weigert's Stain. T. KAES.
4. Nasal Dysmenorrhea. F. LINDER.
5. A Pathogenic Streptothrix from the Sputum. W. RULLMANN.
6. A Rapid Method for the Determination of the Intensity of Light in Workrooms, Schools and Factories. E. PFEIFFER.
7. Acute Cardiac Insufficiency as a Result of Injury. JORNS.
8. A New Instrument for the Injection of Morphine and Camphor. KUSTERMAN.
9. The Diameter of the Thorax and a New Test for the Lungs. T. BUEDINGEN.
10. The Physician and Invalid Associations. LECHLER.

1.—Fleiner discusses the history of ulcer of the stomach with particular reference to the treatment. Of course the most characteristic symptom is the vomiting of blood, and for a long time all conditions in which the vomit is black were confused together. Hoffmann, in 1740, was the first to recognize that in many cases the black vomit is due to the opening of a bloodvessel by necrosis of the gastric wall. Probably the most efficient treatment is dietetic, and this was first systematized by Brinton about the middle of the last century. Later Trousseau suggested the employment of astringents, Ziemssen of alkalis and opium, and Leube insisted upon absolute rest in bed. The indications, according to Fleiner, are to promote the contraction of the stomach and the regeneration of the tissue. For this purpose the patient should keep absolutely quiet in bed, nutrient enemata should be employed to maintain nutrition and later the patient is kept on an absolute milk diet until the fourth week, when a small quantity of meat may be eaten, preferably chicken. After the sixth week red meat with a little rice may be given once a day, and between the fourth and sixth weeks the patients may be allowed to get up for short intervals of time. For the after-cure the patient should spend some time in a stimulating climate, although extended journeys are to be forbidden. [J. S.]

2.—Nebelthau has found that the injection of ammonium lactate, asparagin, benzamid, ammonium citrate and formate into starving dogs increases the quantity of glycogen in the liver. Sodium citrate, benzoic acid and sodium benzoate produce no effect. Dogs, made diabetic by the extirpation of the pancreas and given plasmon and at the same time asparagin or acetamid or sodium citrate, show a considerable increase in the quantity of sugar excreted. In one case, in which a small amount of pancreatic tissue accidentally remained beneath the skin, the glycosuria was moderate and the effect of the drugs doubtful. Other ex-

periments, practically variations of those described, are also mentioned and the results given in tabular form. Nebel believes that the diabetic organism is able to form sugar from the byproducts of the disintegration of the albuminous bodies. [J. S.]

3.—Kaes, discussing the disadvantages of the Weigert method of staining the myelin sheathes of the nerve fibers and the various modifications that have been employed, describes a curious result that he obtained chiefly by using Vite's method, a modification of Weigert's. The effect appears to have been due to a sort of electrolytic action of the Miller's fluid upon the pins which held the tags to the fragments of the cortical tissue. He believes that the projection fibers terminate as free ends in the cortex. He was also able to show some interesting relations between the fibers and the bloodvessels. He thinks that probably Weigert's method will be still further improved. [J. S.]

4.—Linder has observed a number of cases of nasal dysmenorrhea in which it was possible to overcome the pain by the cocainization of the nasal mucous membrane. In order to exclude a possible suggestive action he employed the treatment in 10 selected cases, all of whom responded to the cocainization very readily. These were subsequently treated with ordinary water and in 2 cases exactly the same effect was produced, in 6 a somewhat milder effect and in 2 no effect at all. On the third occasion the patients were told that they were being treated with water and no effect was produced in any of them. It therefore appears that the results of cocainization of the nose for dysmenorrhea are almost purely suggestive. [J. S.]

5.—Rullmann discovered in the sputum of a patient small nodules which, when examined microscopically, were found to consist almost exclusively of a streptothrix. These grew well upon bloodserum, but also in other media. The patient, a woman, was but little troubled with the disease. A Röntgen photograph showed that there were various foci of infiltration, and operation was therefore not attempted. The results of inoculations are not given. [J. S.]

6.—Pfeiffer describes an ingenious photometer which consists essentially of a small disk perforated by holes which are covered with tissues of various degrees of transparency. In using it the observer looks at a white paper and then rotates the wheel until it is barely possible to recognize one of the holes. The transparency of this hole is then read from a scale. [J. S.]

7.—Jorns reports the case of a man, 22 years of age, who had had inflammation of the lung. In holding a barrel he exerted himself to the utmost, suddenly felt weak and on attempting to rise had severe dyspnea. He became cyanotic, had orthopnea, the whole precordial region pulsated violently, the heart sounds were impure, and there was a loud murmur in the mitral region. The symptoms increased; there was congestion of the lungs, and the patient died. An autopsy was not performed. Toward the end the patient had symptoms of aortic as well as of mitral insufficiency. [J. S.]

8.—Kustermann has devised an interesting apparatus for the injection of morphine and camphor by which it is possible to keep the syringe, needles and solutions absolutely sterile. [J. S.]

9.—Büdingen describes an instrument devised by him in 1896 for the purpose of measuring the pressure of the thorax. This consists essentially of a hollow needle with a rather obtuse point, through which a rod with rounded extremity is pushed by a spring. The needle is forced through the skin and then the rod pushes the lung away and prevents its injury. The cannula can then be attached to any convenient manometer and the pressure measured. He believes that this apparatus is more valuable than that of Laczek. [J. S.]

10.—Lechler gives a description of the relation of the physician and invalid insurance in various parts of Germany. The paper is still unfinished. [J. S.]

June 10, 1902. (No. 23.)

The Capacity of the Heart for Work. G. GALLI.
Extensive Calcification of the Wall of a Partial Aneurysm of the Heart. F. v. PESSL.
Contribution to the Knowledge of Cysts of the Navel. K. WALZ.

4. Treatment of Gastric Ulcer. W. FLEINER.

5. The Physician and Invalid Associations. LECHLER.

6. Friedrich Leopold Goltz. KRAFT.

7. The Collection for the History of Medicine in the Germanic National Museum. H. PETERS.

1.—Galli discusses the possibility of recognizing the insufficiency of the heart when none of the ordinary symptoms usually associated with this condition are present. He believes that before these ordinary symptoms occur there is always a period of acute insufficiency that not infrequently is overlooked. He believes also that the splitting of the second pulmonic sound is exceedingly significant of this condition and therefore of great clinical importance. This splitting is heard best in the second interspace to the left of the sternum; rarely in the third interspace. In the course of a series of investigations upon 300 patients it was found that the splitting occurred more frequently after severe physical exertion and was rarest in the morning. It was more common in children than in adults; very rare among healthy men, for example soldiers. He accepts the explanation of Beneke, that it is probably due to the fact that the right ventricle is more readily hypertrophied than the left in adults. [J. S.]

2.—von Pessel reports the case of a man, 45 years of age, who had multiple swelling of the lymphatic glands. This improved upon arsenic, but later reappeared, requiring operation. The patient ceased breathing during the operation, was resuscitated by tracheotomy, but died 2 days later. At the autopsy a chronic sclerotic myocarditis was found with calcification of the anterior wall of the left ventricle and part of the ventricular septum. There was some dilatation in this place, forming a partial aneurysm of the heart. This is an exceedingly rare condition and has not previously been described in so detailed a manner. [J. S.]

3.—Walz reports the case of a man, 50 years of age, who had pain in the region of the umbilicus and diarrhea. There was a walnut-sized tumor at the navel which had lasted for some years. This was elastic, not tympanitic and very tender. A diagnosis of incarcerated omental hernia was made, operation was performed and a cyst containing clear fluid discovered. This was extirpated and the microscopical examination showed that it consisted only of connective tissue. Walz discusses the nature of these cysts. He regards his own case as a hydrocele of the umbilicus, rather than a dilatation of the urachus or allantoic canal. [J. S.]

4.—Fleiner continues his article upon the treatment of gastric ulcer. Old ulcers of the stomach require more time and more careful treatment in order to obtain a cure than more recent ones. If, as is not frequently the case, lavage of the stomach is indicated, small quantities of fluid, not more than 250 cc. should be employed, and never allowed to flow into the stomach very rapidly. After lavage, various drugs will have more effect locally. Among these drugs are nitrate of silver and subnitrate of bismuth, which were recommended by Kussmaul, and which Fleiner administers in doses of 10, 15 or 20 grains in suspension on 120 to 150 cc. of luke-warm water after the water from the lavage is no longer acid. Patients then remain on the right side for half an hour, providing, of course, the ulcer is in the pyloric end of the stomach. It has the advantage of lessening the amount of pain and diminishing peristaltic activity. Bismuth may also be employed in the later stages of the cure. The chief disadvantage is that it tends to produce constipation. Rarely it gives rise to the formation of concretions and it has been claimed, in Fleiner's opinion incorrectly, that it may have some poisonous action. [J. S.]

6.—Friedrich Leopold Goltz was born in 1834. He was educated in the Gymnasium, commenced the study of medicine and obtained his degree in 1858 with a dissertation upon "De Spatii Sensu Cutis." He resolved to devote himself to physiology, paying particular attention to the relation of the nervous system to the heart. In 1870 he was made professor of physiology in Halle. In 1872 he was called to Strassburg, where he accomplished the greater portion of his scientific work. He died in 1902. [J. S.]

7.—Peters discusses early German medicine as illustrated in the collection at the German National Museum. Our

information regarding this subject consists of certain extracts from early German literature, some chemical apparatus, etc. [J. S.]

June 17, 1902. (No. 24.)

1. The Diagnosis of Carcinoma of the Colon. F. CRAEMER.
2. The Microscopical Appearances in Fatty Muscles. W. SCHEFFER.
3. Treatment of Rachitis with Phosphorus. E. UNGAR.
4. Transplantation of Bovine and Human Tuberculosis. HUELS.
5. Transportable Röntgen Apparatus For the Use of the Practising Physician. METZNER.
6. The Capacity of the Heart for Work. G. GALLI.
7. The Treatment of Gastric Ulcer. W. FLEINER.

1.—As the only treatment of carcinoma of the colon is surgical removal, it is very important that the diagnosis should be made as early as possible in the course of the disease. The earliest symptoms are usually irregularity of the bowels, attacks of colic and constipation alternating with periods of regularity. There is often hemorrhage, the blood being bright red. Attacks of colic usually occur when the patient is apparently quite well, and very frequently they are associated with tympanites, eructations, loss of appetite and moderate fever. Enemata may relieve the accumulation of fecal masses. Colic, however, is not present in all cases. It may be simulated, according to Crämer, by symptoms produced by excessive indulgence in tobacco. If, however, it is associated with even commencing stenosis of the bowel, there is always rigidity of the intestinal wall from time to time. The peculiar sounds and murmurs produced by stenosis of the bowels are also of considerable diagnostic significance. Crämer has observed them in 6 cases. These murmurs can sometimes be heard at a considerable distance from the patient, they are of a hissing character, as if a liquid was being forced through a narrow opening. Tenesmus is frequent in proportion as the tumor is nearer the rectum. It is always an indication for careful digital examination of the rectum, and investigation with the speculum or mirror. It is not usually necessary to employ anesthesia for this purpose. Investigation usually shows an injected mucous membrane which bleeds easily, and occasionally small fragments of tissue may be detached which show the characteristic structure of carcinoma. In addition to blood, pus is sometimes found in the stools. The peculiar form of feces produced by stenosis is not always as significant as is generally supposed. It may also be produced by proctitis and cramp. The loss of flesh and weight does not invariably occur. The presence of a palpable tumor is sometimes difficult to determine, because in some cases fecal accumulations have been mistaken for tumors by the most careful and experienced investigators. [J. S.]

2.—Scheffer has made some studies upon the muscles of the frog examining them microscopically before and after tetanizing with electric currents, and using both weighted and nonweighted muscles. He found that the primitive fibrillæ lose their peculiar beadlike appearance and show irregular cylindrical thickenings. These swellings do not appear to follow any regular arrangement. The investigations are not completed. [J. S.]

3.—Ungar criticises the article of Leo who reported 2 cases of rachitis treated with phosphorus in which he believed the symptoms of phosphorus poisoning occurred and also a case reported by Nebelthau and Franke, of a similar nature. Ungar does not believe that the clinical symptoms are typical of phosphorus poisoning. He thinks that the absence of any benefit is probably due to the unfavorable circumstances under which the children were living, and he believes that phosphorus should be given in rachitis in the usual doses, that is to say .005 gm. per day (1-130 gr.). He does not believe that phosphorized cod-liver oil is better than pure phosphorus. [J. S.]

4.—Hüls reports the case of a family consisting of father, mother, 5 sons and 2 daughters in whom there was no trace of hereditary tuberculosis, and yet in the course of 5 years the entire family, with the exception of 2 of the sons, died of this disease. The cases appeared after a new race of cattle had been introduced into the district, of which the

father was an earnest supporter and raised them exclusively on his farm. These cattle were practically all infected with tuberculosis, and it was almost impossible to sell the meat on account of its infected condition. He believes that the circumstantial evidence is strongly in favor of the transmission from the animals to man. [J. S.]

5.—Metzner describes an ingenious arrangement of the Röntgen apparatus that is designed to be transported to the patient's house. [J. S.]

6.—Galli continues his discussion of the significance of the reduplication of the diastolic sound as an indication of the functional activity of the heart. He does not believe that we ever have a physiological reduplication. He recognizes 3 degrees of this symptom; first, in which it occurs only at the end of inspiration, second in which it occurs at the end of inspiration and the beginning of expiration, and the third, in which it is continuous. Reduplication of the first and second degrees is probably an indication of slight weakness of the right ventricle. The paper is still unfinished. [J. S.]

7.—Fleiner continues his article upon the treatment of gastric ulcer. In the course of 10 years he has treated over 300 cases without a single death, without a serious hemorrhage and without uncontrollable vomiting. He therefore believes that his method is effective. In 27 cases it was necessary to resort to surgical intervention. In cases of obstruction of the pylorus as a result of cicatrices, operation is indicated whenever the body weight persistently decreases and the quantity of urine is reduced. Whenever the pylorus is obstructed either by spasm or cicatrices, the likelihood of cure of the ulcer by internal methods is exceedingly bad. In these cases the stomach contents are retained and the patient has a strong disposition to tetany. Fleiner reports 3 cases in which this symptom developed and in which gastro-enterostomy was required. All recovered. When severe hemorrhages occur, the treatment consists in absolute rest with head low. The patient may from time to time have a little ice. Ergotin may be injected subcutaneously and after 2 or 3 days of absolute starvation, with the exception of nutrient enemata, a small quantity of milk and gelatine may be given by the mouth. In some cases operation is necessary to prevent perforation or fatal hemorrhage, and Fleiner gives the histories of several cases in which this actually took place. Resection of the ulcer, however, does not appear to be satisfactory, as theoretically it should be. [J. S.]

June 24, 1902. (No. 25.)

1. The Production of Hemolytic Amboceptors by the Injection of Serum. J. MORGANROTH.
2. A Case of Tuberculous Inoculation of a Slaughter-House Laborer by the Tuberculous Organs of an Ox. P. KRAUSE.
3. Statistical Investigations upon the Results of Infantile Syphilis Acquired and Hereditary. A. MARTIN.
4. Narcolepsy. L. LÖWENFELD.
5. Contribution to the Diagnosis and Therapeutics of Floating Kidney. BATSCH.
6. Contribution to the Knowledge of Röntgen Dermatitis. WIESNER.
7. The Capacity of the Heart for Work. G. GALLI.

1.—Morganroth has performed a series of experiments in order to determine whether it is possible to produce free receptors in the serum of goats that are identical with the receptors of the erythrocytes of goat's blood. Normal rabbit's blood possesses a slight hemolytic action for goat's blood. Some rabbits were therefore treated with goat's serum that was entirely free from bloodcorpuscles and rendered inactive by heating for half an hour to 55°. It was found that their blood developed amboceptors, that is to say, it was capable of rendering active ox blood, even when only small quantities were employed. These amboceptors were practically the same as those produced by the ordinary injections. The action of these amboceptors could be inhibited more or less completely by the use of the serum of rabbits that had been rendered immune to goat's serum or goat's blood. Therefore there seems to be reason to suppose that in the goat's blood there is a continual

metabolic change of the receptors from the cells to the serum and back again. [J. S.]

2.—In 1899, the patient, a butcher, injured his thumb and as a result had chronic inflammatory condition of the arm with enlargement of the glands. Three years later the lungs were normal but an excised axillary lymph-node showed the characteristic histological changes of **tuberculosis** and tubercle bacilli. The patient stated that about the time he received the injury to his thumb he was occupied in removing the skin from diseased cattle and handling them in other ways. There appeared to be no doubt as to how the infection occurred. [J. S.]

3.—Martin reports the statistics of the medical clinic of Jena, from the years 1860 to 1890, regarding infantile syphilis. Altogether there were 56 cases of which 13 were acquired and 43 hereditary. Of the 13 acquired cases, the source of infection could be determined in 6. Of these 13, 2 died in the clinic, one of pneumonia and the other of diphtheria. Seven patients lived to adult life; 4 passed from observation. In one case the patient had tertiary symptoms at the age of 11. The others, with the exception of an occasional infectious disease, remained well. Of these 7 cases 2 were men, both married and had large families and all the children were healthy. Of the 5 women 3 are married and have no children. One had one child that died at the age of 2 years. A fourth has had 8 children of whom 6 are still alive. All the children were fairly intelligent and showed no moral or physical defect. Of the 42 cases with hereditary syphilis, 20 males and 22 females, 13 showed symptoms of the disease very early and 30 not until the fifth year. Of the 13 cases of precocious hereditary syphilis 3 passed from observation. Of the remaining 10 7 died in early childhood, and one at the age of 18, of pulmonary tuberculosis. This patient was apparently quite intelligent. Of the remaining 2 cases one is probably still alive. One of them was morally defective and his parents were the same. The other was fairly intelligent, married and has 2 living children. Of the 30 cases of late hereditary syphilis, 3 males died at the ages of 9, 11 and 15 years. One of these was remarkably intelligent; another was morally defective. Two patients died at the ages of 17 and 19 years. The causes of death in all cases may have been syphilis. As for the other patients, it appears that, as far as was known, they are all married and have children that are fairly healthy. Among the women there can be no doubt that there was some delay in the appearance of puberty. Of the 33 children born up to 1900, 5 had died. There were also numerous miscarriages. [J. S.]

4.—Löwenfeld has collected some case-histories of narcolepsy from the literature, and reports a case of his own occurring in a boy, 17 years of age, who for 4 years had had a marked tendency to sleep during the day. In fact he would fall asleep for periods of 4 or 5 minutes constantly throughout the day, remaining asleep sometimes for an hour. He would even fall asleep while walking on the street, while eating, reading or talking. He slept well at night, his memory was becoming impaired and there was paresis of the right side of the face. Later he developed some paresis of the hand, especially after laughing, but as a result of hydrotherapy, galvanization of the head and hypnosis, he improved very rapidly. The interesting feature of this and other cases is the motor inhibition after laughing. This **narcolepsy** represents a peculiar form of disease characterized by a tendency to sleep and motor inhibitions. It belongs to the group of neuroses. [J. S.]

5.—Batsch reports the case of a woman, 35 years of age, always healthy, who attempted to lift a heavy weight and immediately had severe pain in the region of the right kidney. She continued to work, however, when she had a chill, became icteroid and a tumor of the gall-bladder was recognized. The icterus was chronic. Four months later it was necessary to operate, when it was found that the supposed enlarged gall-bladder was the right kidney. This was firmly adherent to the liver and had caused some ob-

struction of the common duct. The kidney was sewed into its proper position and the patient rapidly recovered. The second patient, a woman of 55 years, had been unable to eat and had become extremely emaciated, vomited frequently, occasionally feces. The latter had been relieved by injections of atropine. A tumor was found about the region of the middle of the ascending colon, about the size of a fist. A diagnosis of **floating kidney** was made, an operation was performed and the right kidney found in a dense mass of adhesions. It was loosened as much as possible, fastened to the wall of the abdomen and the patient recovered. [J. S.]

6.—Wiesner reports a severe case of **Röntgen dermatitis**. The patient was exposed to the Röntgen ray in a factory where he was occupied in making the apparatus, the particular cause being prolonged exposure whilst testing a machine. Nothing seemed to influence the course of the disease which rapidly grew worse and then better, in some parts scars being produced. Wiesner considers the condition a trophoneurosis. [J. S.]

7.—Galli concludes his article as follows. The present classification of the **reduplication of the second sound** is not justified, for it is invariably pathological, indicating insufficiency of the heart and therefore a valuable criterion for the determination of the functional activity of the heart. The best method of treatment is rest. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

June 16, 1902. (39 Jahrgang, No. 24.)

1. Morbid Self-relation, With Delusions of Self-Importance. A. CRAMER.
2. Nephrolysins. G. ASCOLI and F. FIGARI.
3. The Operation for Tubal Pregnancy Through the Vagina. P. STRASSMANN.
4. Tuberculous Meningitis With Recovery. THOMALLA.
5. Recovery in a Case of Cancer After Injections of the Adamkiewicz Serum. L. KUGEL.
6. More Success Following the Use of Cancroin in the Treatment of Cancer of the Tongue, Larynx, Esophagus, Stomach and Mammary Gland. A. ADAMKIEWICZ.
7. The Construction of the Single-celled Animal Organism and the Difference Between Human and Plant Cells. FEINBERG.

1.—In this condition the patient sees his surroundings in subordinate relation to his own importance. Suddenly or gradually every detail acquires an intimate relation with his own person. With this a certain weakness in determination occurs. Some of these patients consider themselves ill; others cannot see that anything is the matter. Some show a distinct irresistible impulse; others show delusion. Simple **morbid self-relation** may disappear, may remain stationary or may be followed by paranoia. The onset of the condition varies in different cases. When accompanied with an irresistible impulse it is found in degenerates. With some slight organic ailment the patient undergoes a change of consciousness. He feels as if something had changed, a purely psychical symptom. There is some disturbance of consciousness or defect of intelligence, as in epilepsy, hysteria, alcoholism, progressive paralysis and other brain disease, or the condition exists with deafness, vertigo, melancholia or neurasthenia. The prognosis varies. [M. O.]

2.—Ascoli and Figari make their first report upon the result of their experiments on **nephrolysins** in rabbits. Preparatory treatment with dog's kidneys caused the appearance of nephrolysins in the rabbit. These are found in serum, not in the bloodcorpuscles: such serum causing serious nephritis in dogs. Similar results, not so severe, follow serum obtained from animals whose ureters have been ligated or kidneys removed. Isonephrolysins and heteronephrolysins were demonstrated, but not autonephrolysins. Actinephrolysins were, however, present. Autopsy upon these animals always showed cardiac hypertrophy. Therefore something in the heteronephrolytic serum must gravely affect the circulation. [M. O.]

3.—Will be abstracted when concluded.

4.—Thomalla reports a case of **tuberculous meningitis** in a student, aged 20, both of whose parents died of tu-

berculosis. He had had cervical and pharyngeal tuberculosis and fistula in ano. Beside meningitic symptoms 2 tubercles were found on the choroid of the left eye. The treatment consisted in potassium iodide and creosote in ascending doses. In 3 weeks the fistula in ano was operated upon and a month later examination of the eye showed that the tubercles had disappeared. Four months afterward a rectal abscess was found and extirpated. Since that time the patient has kept **perfectly well**. A review of the literature follows. Thomalla believes that recovery followed the early and large dosage of creosote. [M. O.]

5.—Kugel reports the case of a woman of 53, with **mammary cancer**. This was extirpated, recurred, and was operated upon 3 times, with extirpation of the axillary glands and of two-thirds of the left breast. Then a tumor appeared over the left clavicle. In spite of cachexia, **injections of the Adamkiewicz serum, cancrin**, were given, and the tumor disappeared after 20 injections. Later, after stopping injections, all other cancer nodes disappeared, and she has remained well since. There was no doubt that the tumors were carcinomatous, as several well-known pathologists examined them. [M. O.]

6.—Adamkiewicz reports several cases of **cancer** of the tongue, larynx, esophagus, stomach and mammary gland, all of which were **cured by injections of cancrin**. Whence it appears that the Adamkiewicz serum, cancrin, is of great value in the treatment of cancer. [M. O.]

7.—The **Romanowski staining method** serves to differentiate the single-celled animal organism from the human or plant cell. After describing the **construction of the single-celled animal organism**, Feinberg gives the details of the method of staining and the minute differences found. [M. O.]

June 23, 1902. (39 Jahrgang, No. 25.)

1. The Existence of Bacterial Virulence, From Experiments With Cholera Vibriones.
R. PFEIFFER and E. FRIEDBERGER.
2. The Complementophile Groups of Amboceptors.
P. EHRLICH and H. T. MARSHALL.
3. The Question of Alimentary Glycosuria with Liver Disease. J. BRUINING.

1.—After describing their experiments. Pfeiffer and Friedberger conclude that virulent and avirulent cultures of cholera vibriones differ in the number and grade of affinity of their haptophore groups, both being much greater in the virulent cultures. The immunizing effect of inoculation with cholera vibriones depends on the height of virulence of the culture used, as with typhoid and plague bacilli. The **existence of virulence**, therefore, depends on the bacterial species and its relation to its amboceptors. [M. O.]

2.—For the specific action of lysins it is necessary for the dominant or not dominant complement, one or the other, to become active. The **complementophile amboceptors**, however, only form combinations after the haptophore group has completed its connections. This is well illustrated by experiments. [M. O.]

3.—Bruining gave **glucose, levulose, saccharose and dextrose** to 21 patients with liver disease, 19 of whom had cirrhosis. Then he examined the urine. The levulose was all excreted in the urine; glycosuria rarely followed the ingestion of glucose. Saccharose caused glycosuria in every case. Interesting details are given. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

June 12, 1902. (XV. Jahrgang, No. 24.)

1. Fracture of the Clavicle in the Newborn Infant.
GUSTAV RIETHER.
2. Lymphangioma and Hemangioma of the Larynx, with Inflammation. L. HARMER.
3. 130 Operations for Stone in the Bladder. D. KOKORIS.
4. Aneurysm of the Base of the Heart.
VITTORIO COMINOTTI.

1.—Riether has tabulated 65 cases of **fracture of the clavicle in newborn infants**, delivered spontaneously. This shows that the condition frequently occurs. The fracture of the clavicle occurred in the L. O. A. position in 2 infants on the right side, in 15 on the left; in the R. O. A. position, in 7 on the right side, and in 12 on the left. The fracture was most often near the center of the clavicle. It was

commonly complete, but in a few cases it was of the "greenstick" nature. The symptoms were deformity, crepitus, pain and loss of motion. Later callus formed. The prognosis is good, as the condition heals in 2 weeks, with correct bandaging. [M. O.]

2.—Will be abstracted when concluded.

3.—Kokoris reports **130 operations for vesical calculus**, only 3 of them being performed in women. He did lithotripsy in 27 with 4 deaths; suprapubic cystotomy in 12 with 4 deaths; and **perineal cystotomy** in 88 with 6 deaths. The details follow. Perineal section is preferred in children, but it was done in 5 adults also. Lithotripsy is best for adults. When this is contra-indicated, perineal cystotomy is advised; while the suprapubic operation is only to be done when neither of the other two is practicable. For women Kokoris recommends lithotripsy. [M. O.]

4.—**Aneurysm of the base of the heart** may rarely be acute, but it is more commonly chronic in development. Cominotti reports in full the case of an aneurysm as large as a human fist, at the base of the left ventricle, in a woman of 30. The origin of this gradually developing aneurysm in a syphilitic may have been an area of myocarditis, an infarct or some specific lesion. The autopsy showed stenosis of the left venous atrium, chronic pericarditis, left-sided pleurisy, right-sided bronchopneumonia, an infarct in the left lung and hyperemia of the liver, spleen, kidney and intestines. [M. O.]

June 19, 1902. (XV. Jahrgang, No. 25.)

1. The Diagnosis of Renal Infarct. RUDOLF SCHMIDT.
2. A Method for Remedying Defects in the Eyelids.
KONRAD BÜDINGER.
3. The Symptoms of Wounds of the Skull.
JOHANN SCHEIDL.
4. The Treatment of Endemic Cretinism.
WAGNER von JAUREGG.
5. Lymphangioma and Hemangioma of the Larynx, With Inflammatory Changes. CHARLES L. HARMER.

1.—After fully reporting a case of **renal infarct** in a man of 45, Schmidt concludes that embolism in the renal artery causes acute vesical symptoms, retention of urine with incontinence. Polyuria follows, due to active hyperemia with vasomotor paralysis. With this sudden pain and albuminuria are noted. Hematuria but rarely occurs. All sorts of cells are found in the urinary sediment when renal infarct is present. When infarcts are bilateral, lying on the least affected side causes an increase in the pain. Sudden vomiting may be the first symptom of an embolus of the renal artery. Though a rise in temperature may occur, the condition remains aseptic. When there is a suspicion of renal infarct, sensory changes should be sought in the region supplied by the iliohypogastric nerve. [M. O.]

2.—Büdingen reports the case-histories of 2 patients upon whom he practised his **new method for remedying defects in the eyelids**. The arrangement of flaps and the technique of the operation follow. [M. O.]

3.—Scheidl reports the case of an officer whose **skull was severely injured**. In spite of the large fracture wound, which was not cleaned or disinfected, he recovered. Much cerebrospinal fluid was lost, without causing any reaction. He was up and about in 2 weeks, and in 5 weeks underwent plastic operation for remedying the skull defect. Four months later he was perfectly well. [M. O.]

4.—Contrary to the poor results recently published by Dr. Scholz, von Jauregg reports **uniformly good results with thyroid extract in endemic and sporadic cretinism**. Every one of his patients grew upon this treatment. [M. O.]

5.—In a detailed histological article in which several case-histories are reported, Harmer concludes that **hemangioma of the larynx** is seldom found, compared to other tumors: while **lymphangioma of the larynx** is a rarity. Both are congenital conditions which later develop sufficiently to cause symptoms. They show a tendency to undergo inflammatory changes. These are caused by superficial lesions, with bacterial infection secondarily. While the diagnosis of lymphangioma is very difficult, that of hemangioma is but little easier. If diffuse, the prognosis

is grave. The tumors must be removed by operation or ignipuncture. If very small, electrolysis may be of use in extirpating them. [M. O.]

ZEITSCHRIFT FUER KLINISCHE MEDICIN.

Band XLV., Hefte 1 u. 2.

1. On the Discussion Concerning Achylia Gastrica. L. KUTTNER.
2. How Does the Will Guide Mechanical Work? ALBERT ADAMKIEWICZ.
3. The Influence of Antipyresis Upon the Agglutinating Power of the Blood in Typhoid Fever. M. BENIASCH.
4. Concerning a Case Belonging to the Group of Leukemia-like Diseases. L. MICHAELIS.
5. A Peculiar Case of Pneumothorax. G. JOCHMANN.
6. The Condition of the Blood in Measles and Scarlet Fever in Childhood. P. RECKZEH.
7. Concerning the Identity of Ozena and Rhinoscleroma Bacilli With Friedländer's Bacilli. A Contribution to the Bacteriology of the Nose.

F. KLEMPERER and M. SCHEIER.

1.—Kuttner reports a series of observations that he has made, during several years past, of the total acidity, the total free HCl, and the pepsin, determined quantitatively by Hammerschlag's and Mett's methods. **Pepsin was rarely entirely absent and then only in cases of complete absence of HCl.** It may be increased or decreased in excess of HCl. The author then gives a general discussion of the question of achylia gastrica and closes with the statement that, at present, he **considers it entirely impossible to distinguish the clinical picture of simple achylia gastrica from that of absence of secretion due to advanced catarrhal or atrophic changes in the gastric mucous membrane.** Many authors claim to be able to distinguish them, but Kuttner directly opposes this view. The individual symptoms have nothing pathognomonic in them, and the functional disease may pass over into the organic. We have no method of determining whether a reduction in secretion or a loss of secretion is due to actual changes in the mucous membrane or to purely nervous influences. Conjectures and hypotheses have been numerous in this connection, but they are all worthless. The author takes the opportunity to make some terse remarks concerning the examination of fragments of the mucous membrane of the stomach, and reaching a diagnosis of the condition of the gastric mucous membrane from this. He says very positively that the longer he occupies himself with the **microscopical study of such particles of tissue, the more thoroughly convinced does he become that this method is practically valueless;** and he wholly agrees with Leuk (abstracted in this Journal from *Zeitschrift für klin. Med.*, Bd. XXXVII.), who showed that with normally functioning stomachs one finds particles of mucous membrane that show apparently marked changes; while in a large percentage of cases in which there are very decided secretory anomalies, normal pictures are seen in the fragments obtained. [D. L. E.]

3.—Beniasch has made a study of the **relation of the temperature** (when it was reduced by antipyretic measures, and when allowed to maintain its ordinary course) **to the agglutinating power of the blood** of the individual, his purpose being to see whether this method of study would help to demonstrate the truth or falsity of the common teaching that fever in infectious diseases is an important means of protecting the organism and is actually a natural means of therapeutics. His results speak directly against this teaching. **The agglutinating power of the blood almost always fell as the temperature fell;** and the author thinks that we are justified in using the agglutinating power as some indication of the resistance of the subject. He reports, in detail, his observations of 23 cases. He then discusses critically the animal experiments concerning the influence of fever upon the course of the infection; and he closes with a strong expression of the view that **the general teaching concerning the actively curative role of fever in infections is without any experimental proof.** He suggests that we should study the influence of antipyresis upon antitoxins and bactericidal substances, the agglutinating substances and other elements which are known to be produced in the fight against an infection. [D. L. E.]

4.—The main points in the case reported were that the patient was a woman of 50, who began to feel unwell about 10 weeks before she was admitted to the hospital. She had weakness, cough, slight expectoration and pain in the left hypochondrium. All these symptoms increased markedly and the case ended fatally 3 months after her admission. There was no swelling of the lymphnodes. There was a large, soft swelling of the spleen; and the bone-marrow was red. There had been, during life, a temporary appearance of normoblasts and only a slight increase in the total number of leukocytes (16,000); but there was a marked change in the relation of the different forms of leukocytes to each other, the lymphocytes constituting 76% of the total, while 7% of myelocytes were found. The author then discusses the relation which this case bears to other cases of leukemia-like disease. **It more closely resembled pseudo-leukemia than any other affection,** if this term be used in the sense of Pinkus, and be made to include lymphatic leukemia; but in this class of cases one finds swelling of the lymphnodes marked changes in the purely lymphatic part of the bone-marrow, hemorrhagic diathesis and absence of overproduction of myeloid tissue. myelocytes, however, were present; and there were numerous bone-marrow giant-cells in various organs. Michaelis goes into a critical discussion of the nature of the so-called lymphocytes found in this case, and states that in an earlier paper he directed attention to the fact that "a cell with a rounded nucleus and with a narrow basophilic protoplasm" is an insufficient definition. Another form of cell—the undifferentiated connective-tissue cell—he terms the "indifferent lymphoid cell." He believes that many of the cells seen in this case were not fully grown, but were undifferentiated lymphoid cells, this being particularly true of the neutrophile myelocytes. He believes that the various cases of leukemia-like disease resembling this one, can at once be brought into line, if the large cells without granulations are called lymphoid cells and are thought to be probably undifferentiated connective-tissue cells, which can, in the further course of their differentiation, be transformed into granulated cells. [D. L. E.]

5.—The case occurred in a man of 22. The striking facts about it were that **at the time of its onset the attack caused absolutely no symptoms.** The man complained of having had slight pains in the right chest and a little dyspnea. All this had begun very gradually. There was no history of trauma, fever or chill. He had had the same feelings about a year before. He had worked until the day of his admission into the hospital, and his symptoms were very slight indeed. There was no history of tuberculosis in the family; the patient had no previous history of any importance and had no specific history. He was found to have a **high grade of right-sided pneumothorax.** A Röntgen-ray examination gave confirmatory evidence of the diagnosis. The man had improved very greatly after about six weeks' treatment, when he suddenly had a **recurrence of exactly the same symptoms** as at first, and again showed the physical signs of a marked pneumothorax—again on the right. The patient was discharged about three months after his admission, with his pulmonary physical signs practically normal. **At no time was there any evidence of tuberculosis,** and there was no history or evidence of previous pleurisy. The almost entire absence of symptoms was the most striking part of the case. **The importance of the Röntgen rays in this case** is insisted upon, particularly in the demonstration of the fact that pleural adhesions must have been practically entirely absent. [D. L. E.]

6.—To be continued.

7.—The authors, after a series of studies of the bacilli given the three names mentioned, reach the conclusion that there is **no evidence that the so-called bacilli of ozena and of rhinoscleroma produce these diseases,** and that there is much to make us think that they do not. They resemble in all ways the Friedländer bacillus, which is also found in healthy respiratory passages and in other diseases than those mentioned. The authors think that one must reach the conclusion that the so-called ozena and rhinoscleroma bacilli are really Friedländer's bacilli which increase to an unusual degree in ozena and rhinoscleroma, and perhaps produce secondary changes in the scleromatous tissue or in the secretion in ozena, thereby having some activity in the production of the clinical pictures seen in these diseases.

Even this, however, is not proved; and they are certainly not the causes of these diseases. The names *ozena bacillus* and *rhinoscleroma bacillus* should not be further used.

[D. L. E.]

JAHRBUCH FUER KINDERHEILKUNDE.

May, 1902. (Volume 55, No. 5.)

1. Intubation and Tracheotomy in the Treatment of Diphtheric Stenosis of the Larynx. GANGHOFNER.
2. Albuminuria in Children with Diphtheria. JOSEPH LANGER.
3. Serum Eruptions Observed in the Past Four Years. G. R. von RITTERSHAIN.
4. Parrot's Pseudoparalysis in Congenital Syphilis. FRANZ SCHERER.
5. Lye Poisoning in Children. JULIUS KRAMSZTYK.

1.—After reviewing the literature, Ganghofner reports his results with **intubation and tracheotomy for diphtheria in Prague** during the past 6 years. The mortality in children under 3 years of age was very high, 30% in 1900, the lowest year. The mortality from intubation in all children in 1900 was 26.33%. Rarely, only, is primary tracheotomy necessary. Secondary tracheotomy, on the other hand, may be indicated often and is done so frequently immediately after intubation that it is practically a primary operation. This proceeding, absolutely contrary to rules formulated by O'Dwyer, is done less than formerly in Prague. Ganghofner prefers intubation to tracheotomy. [M. O.]

2.—Langer believes that errors are made, as a rule, in estimating **albuminuria in children with diphtheria**. Not only may the cloudiness produced by the acetic acid, potassium ferrocyanide test not mean albumin, but some of it may be due to albumin and some not. He shows that urates or phosphates may simulate albumin, or may occur with albumin, concealing the amount. This supposed albumin, so frequently described in diphtheria in children, quickly disappears when antitoxin is given. This phenomenon, depending upon increased concentration of the urine, is more often observed in diphtheria than in the other infectious fevers. [M. O.]

3.—von Rittershain reports the **eruptions observed during the past 4 years, following antitoxin injections in diphtheria**. Twelve hundred and twenty-four children were injected, in 79 of whom, 6.45%, an eruption followed. In a quarter of the cases the eruption was localized; in 72% it was general. As a rule the rash appeared inside of 10 days. The eruption was urticarial in 31, while in a few it was erythematous, morbilliform or polymorphous. In 10 cases the diagnosis between a scarlatiniform serum eruption and scarlet fever was difficult. He concludes that serum eruptions are less frequent than formerly; and that, on account of the difficulty in differentiating them from scarlet fever in some cases, suspicious cases should be treated as scarlet fever. [M. O.]

4.—No disease of childhood shows so many different symptoms as **congenital syphilis**. After reviewing the literature upon **Parrot's pseudoparalysis** in congenital syphilis, Scherer reports 2 cases, in both of which the arms were paralyzed, though electrical reactions were normal. The children died at 6 and 8 weeks. Autopsy showed that the epiphyses in both cases were normal. This condition was noted in 11 out of 50 cases, 22%. While in some infants the paralysis improved upon mercurial inunction, in others it did not change. In but 4 were there bony changes post mortem. Besides, in 8 cases of congenital syphilis, these bony changes were found without any signs of pseudoparalysis. Nerves and muscles respond to electricity, while the epiphyses are tender on pressure, passive movements causing pain. There is no spasticity, the muscles being relaxed. A cervical hemorrhagic pachymeningitis, some slight inflammatory changes in the nerves, the cervical cord, or the muscles themselves may explain the symptoms. His investigations showed a general streptococcus infection in both cases, streptococci being found in the

liver, stomach, spleen, kidneys, intestinal mucosa, spinal cord and cervical ganglia. When bullæ, ulcers or rhinitis occur in a child with congenital syphilis, the possibility of secondary infection should not be forgotten. From his experiments upon animals Scherer believes that the cases of pseudoparalysis in children with congenital syphilis, in whom no bony changes are found post mortem, are caused by severe **secondary septic infection**. [M. O.]

5.—The commonest of the forms of accidental poisoning observed in children in Warsaw is **due to the ingestion of lye**. For the poor use it freely for cleaning, and it stands about the house in beer or soda-water bottles. Out of 50 accidental poisoning cases in children, in 10 years, 32 had taken lye. Eighteen of them were 4; 6 were 3, 4 were 5; 2 were 2; one was 9, another 10 years old. If death does not result, stricture of the esophagus frequently follows. Kramsztyk believes that lye should only be sold diluted, in peculiarly shaped bottles, labeled poison, so that it shall not be drunk by mistake. [M. O.]

ARCHIV FUER KLINISCHE CHIRURGIE.

1902. (Volume 67, No. 1.)

1. The Indications for and Prognosis of the Operations for Cancer of the Rectum. MAX JAFFE.
2. Anomalies of the Large Intestine. ARTHUR FROMMER.
3. Total Bilateral Resection of the Cervical Sympathetic Nerve in Exophthalmic Goiter. BALACESCU.
4. The Question of Trepanation in Cortical Epilepsy. W. J. RASUMOWSKY.
5. Large Intestinal Resection, With Remarks on Chemical Peritonitis With Strangulation and Ileus. ERWIN PAYR.
6. Giant Cell Sarcoma and Plasma Cells. GEORG FRIEDLAENDER.

7. (a) A Coccus-like Bacterium Coli Pyogenic in Man and Animals. LUIGI DE GAETANO.
- (b) Staphylococci as the Cause of a Benign Osseous Neoplasm. A. A. BOBROFF and S. RUDNEFF.

1.—Jaffé lays stress upon digital examination in the diagnosis of **cancer of the rectum**, best done under anesthesia. An infiltrating tumor is found, occasionally resembling the ulceration of rectal gonorrhea and syphilis. To confirm the diagnosis a piece of the tumor should be excised and examined. Before operating the surgeon must decide whether the cancer affects the rectum only, making search for carcinomatous glands and metastases. In early stages circular excision of the cancer is possible. For extirpating cancer of the lower or central part of the rectum Jaffé makes a perineal incision; for cancer higher up he makes peritoneal and dorsal incisions, with an artificial anus. He opposes Kraske's operation, that through the vagina and that through the abdomen. He describes his very ingenious method of establishing a temporary artificial anus. Affected lymphnodes must be removed during operation, since, if left, they cause a poor prognosis. Operation is always indicated. [M. O.]

2.—Frommer has thoroughly reviewed the literature on **anomalies of the large intestine**, having collected 74 such cases. He then reports 3 cases of dilatation of the colon, causing chronic constipation, volvulus and ileus. Operation was followed by recovery. Each case differed from the others. The diagnosis of **megacolon** is rarely made. Electricity and diet seem beneficial. Ventrofixation alone is needed in mild cases; in others resection and entero-anastomosis may become necessary. [M. O.]

3.—Balacescu reports 55 cases of **exophthalmic goiter**, in which he operated upon the cervical sympathetic nerve. In 8 patients he simply divided the cervical sympathetic nerve; in 27 he performed partial resection; in 19 he did total bilateral resection, and in one he stretched both cervical sympathetic nerves. After quoting an immense number of statistics, Balacescu concludes that **bilateral total resection of the cervical sympathetic nerve is the best treatment for exophthalmic goiter**. It should cause complete recovery. Division and stretching of the nerves are useless. When tachycardia is not marked partial resection of the nerve may suffice. Finally, operation upon the

thyroid gland should never be attempted for exophthalmic goiter. [M. O.]

4.—Rasumowsky reports 9 cases of **trepanation for cortical epilepsy**. On 7 patients he performed the Horslev operation, his results being 4 recoveries, 3 failures and 2 deaths, one from purulent encephalitis, the other from heart failure, some time after operation. The case-histories follow in detail. [M. O.]

5.—Payr reports a case of **ileus with strangulation, causing gangrene of the intestine**, 275 cm. of which were resected. Recovery followed operation and the patient, a woman of 39, has remained perfectly well since. Twelve somewhat similar cases were found in the literature. Payr's experiments show that the chemical peritonitis which occurs with strangulation or ileus shows the bactericidal effect of the transudating fluid, which, caused by the irritation of the peritoneum, prevents the occurrence of toxemia by its presence. It is thus a protection against bacterial invasion. [M. O.]

6.—After having studied 27 cases of **sarcomatous tumors**, Friedländer states that when plasma cells are absent the tumor is probably sarcoma, though their presence does not exclude the diagnosis of sarcoma. These tumors also contain cells which can, with difficulty, be classified, cells midway between epithelial and connective tissue cells, containing characteristics of each. The giant cells may give the plasma cell staining reaction or not. In giant cell sarcoma a group of cells was observed, probably benign, characterized by their intimate relation with bone marrow, the presence of plasma giant cells, and of possible angioblasts, cells much resembling the plasma cells. [M. O.]

7.—(a) de Gaetano describes a **coccus-like colon bacillus** found in an abscess, which was pyogenic in man and animals. [M. O.]

(b) Bobroff and Rudneff report the case-histories of 2 patients with benign osseous neoplasms, **osteomata**, caused by the *staphylococcus albus*, without any symptoms of inflammation. [M. O.]

REVUE DE CHIRURGIE.

May, 1902. (22me. Année. No. 5.)

1. Double Autositic Monstrosities. MARCEL BAUDOUIN.
2. Normal Salt Solution in Surgery. E. TAVEL.
3. A New Operation for Hemorrhoids. J. POTARCA.
4. Strangulated Hernia in Infants. E. ESTRE.

1.—In contradistinction to parasitic **double monstrosities**, one of whom is almost perfect, the other being incomplete, autositic double monstrosities are composed of 2 equally developed beings. Operation with removal of the parasite in the former is like extirpation of a tumor, but operation in the latter is exceedingly difficult. It may be attempted at any time, or may become necessary suddenly, when one of the joined individuals is gravely ill, or dies. Baudouin gives the statistics of all known living cases, omitting those still-born. He found 8 craniopagi, 3 of them metopagi, with one operation, and 5 cephalopagi. Eight pygopagi were collected, with one operation; one of these double monsters, female, still living in Berlin, aged 24 and married. One osphuopagus was found and 10 ischiopagi were collected. One ischiophopagus lived 3 months. Fourteen cases of xiphopagus were collected, but one of whom, the "Chinese twins," is living. Four of these were separated by operation, but one of the 8 children still living. Ten thoracopagi were found, in one of whom, at operation, pleuræ and pericardium were found joined. One of these children is also living. Baudouin regrets that the study of teratology is not kept up, for double monsters will always appear from time to time. [M. O.]

2.—The use of **normal salt solution in surgery** dates from 1890. As asepsis is superior to antiseptics, so moist asepsis is preferable to dry asepsis. Therefore Tavel experimented

with a normal salt solution to which alkalis had been added to bring the alkalinity up to that of the blood. This is absolutely sterile, after having been boiled; prevents adhesions and causes no irritation in operation; provokes leukocytosis; has a positive chemotactic effect, exciting antibactericidal action. The preparation of the solution, its use in the preparation of instruments, antiseptics, ligatures, etc., follow. Finally he reports the good results from its use clinically, by subcutaneous injection and intravenously. [M. O.]

3.—Potarca describes a **new operation for hemorrhoids**, the idea of Vercesco, of Roumania. After general or spinal anesthesia, the anus is dilated, the dilator remaining in, and a special cork cylinder is then introduced. The anal mucous membrane is pinned to this cylinder and it is drawn out by its handle, pulling down the mucous membrane of the lower rectum. An incision is made just below the pin attachment of the mucous membrane to the cylinder, and the dilated vessels are extirpated after the mucous membrane, on the cylinder, has been drawn out. It is then allowed to return, sutures being put in at the same time. It is advised on account of its simplicity, because it reconstitutes the anal sphincter and because it is much shorter than any other operation. [M. O.]

4.—Will be abstracted when concluded.

LA PRESSE MEDICALE.

May 3, 1902. (No. 36.)

1. The Orbito-ocular Complications of Sinusitis. F. DE LAPERSONNE.
2. Guarnieri's Vaccine Corpuscles. R. ROMME.
 - 1.—De Lapersonne believes that at some time during a **sinusitis, orbito-ocular complications** occur in almost 20% of cases. On this account the prognosis becomes unfavorable, since loss of vision or cerebral complications may follow. Orbital abscess may occur with frontal or ethmoidal empyema. A fistula may result, should the condition become chronic, or osteitis with necrosis of the orbital walls may follow. Mucocoele, dacryocystitis or paralysis of the ocular muscles but rarely follows infection. Iritis, iridochoroiditis or even septic chorioretinitis may occur. Besides, papillary hyperemia, optic neuritis, thrombosis of the central vein of the retina, retrobulbar neuritis or papillary atrophy may be produced. Functional troubles also follow sinusitis, accommodative asthenopia, diminution of the central visual acuity or reduction of the visual field. All such changes are due to infection. The infection generally spreads along the bone. Passive venous congestion results, which may explain the functional disturbances. These complications are generally noted with polysinusitis or pansinusitis; yet the frontal and anterior ethmoidal sinuses are most often affected. [M. O.]
 - 2.—In 1894 Guarnieri found the **vaccine corpuscles** which bear his name, but which he called *cytorhyses variolae*. They were found in the epithelial cells throughout the vaccination pustule. From inoculation experiments he concluded that they were the specific parasites of vaccine. Wassieliski has recently shown that they were not products of degeneration. He believes they are parasites and are very probably the cause of the vaccine pustule. He made successive inoculations through 16 generations, causing typical pustules. He found the corpuscles 3 hours after inoculation. [M. O.]

Tuberculin in the Treatment of Tuberculous Peritonitis. After reporting in detail the case-histories of 10 patients with tuberculous peritonitis, Denys concludes that tuberculin exerts an incontestable curative action in the treatment of tuberculous peritonitis. But one death occurred, and that was due to secondary infection. Eight patients have completely recovered. Seven had ascites and six had fever. Marked improvement was noted after the first injections of tuberculin in all. Many photographs accompany the article. (*La Presse Médicale Belge*, July 6, 1902.) [M. O.]

Special Article.**SANITATION AT ATLANTIC CITY.**

By HENRY LEFFMANN, A. M., M. D.,
of Philadelphia.

It is conceded by competent persons that Atlantic City is the greatest of summer resorts. Other places may be more attractive as to scenery, more exclusive in social conditions or more specifically adapted to the care of invalids, but as a place for recreation, the city is characteristically American and far more complete than any other on the Atlantic coast. At the height of the season, the famous boardwalk presents a unique kaleidoscopic view of life. It is obvious that the sanitary conditions of such a community have the greatest possible importance. The population from the middle of July to the middle of August is said to be about 175,000, but exact figures are not attainable. Most of these persons are young adults and children having but little control over the character and preparation of their food and, indeed, caring little for such matters as long as they are comfortable. As temporary sojourners they are more susceptible to the infectious diseases of the district than the permanent residents.

The city has been growing for about half a century, but it was for a long time merely one of several unorganized seaside resorts. It is now an American municipality with all the characteristics that this term implies. The sanitary questions in such a community will be principally those relating to water-supply and sewerage and a few food articles. The climatic and soil conditions will be little under the control of the authorities and, while the adulteration of food is frequent and takes place with almost all articles, many of these adulterations are of little sanitary moment in spite of the sensational articles in the newspapers and the efforts of many health officers and sanitary chemists. Among food articles, that may be the means of distributing infectious and contagious diseases, are milk, shell-fish and garden-truck. The dangers from the two last are dependent largely on the local methods of sewage disposal. Of all the influences, that of water-supply is the most important. Water is used freely by every one in the raw state and it is the usual abode of a germ or class of germs giving rise to a serious disease, typhoid fever, the blight of so many communities.

The water-supply of Atlantic City is partly public and partly private. The district is underlaid by several strata that yield plenty of excellent water. The best of these is about 800 feet below the surface and is tapped by several of the large hotels. The public supply comes from three sources, artesian wells on the island, near the built-up section, similar wells on the mainland and surface water. The last supply comes from a stream near Abescon on the mainland, about six miles from the city, flows a short distance in an open channel and is collected in a special reservoir. It is almost always colored, sometimes deeply so. The artesian wells on the mainland are not very deep, are adjacent to the reservoir for the surface water, and are flowing

wells, the water simply collecting in open pools. The contrast of the two waters is striking. At the time of my visit, the artesian water was clear and colorless and the surface water resembled an infusion of coffee. The two waters are mixed and pumped to the city, where the supply can, if necessary, be augmented by the island wells, the first mentioned source. No system of filtration or subsidence is applied. Each reservoir is simply an open basin, the margin level with the ground and unprotected by railing. The material is white pebbly sand, without brick or cement. The construction is, therefore, quite primitive. There is nothing to prevent accidental or intentional pollution. Animals may enter the water or deposit eggs or excrement in it. At the time of my visit, the artesian reservoir showed considerable green vegetable growth, and on the walk around the pool, about a foot from the sloping edge, was some excrement, of a large animal, possibly a human being. This mass might easily be swept into the pool by rush of rain-water or by kick of a mischievous urchin. The surface water was too dark to show fully the material in it, but some foreign matter could be seen. The supply to this pool, which, as noted above, is from a gathering ground some distance beyond, flows through a ditch which has a foot-path alongside it, leading past a farm house and adjacent fields into a wagon road. Contamination with surface washings from this neighborhood may, therefore, occur with every rain.

It will be seen from the above description that the water-supply of Atlantic City is far from meeting the requirements of modern sanitary science. The artesian supply, both from the mainland and the island is of good quality, but the collection of the mainland supply in an unprotected shallow pool imperils it at all times and renders some pollution almost certain. The surface supply is inherently dangerous. It suffers the now-recognized perils of water that has been exposed to contamination by surface washings and it may be laid down as a fundamental principle that such water is not safe for drinking purposes unless filtered. Proofs of this principle are now abundantly presented in various parts of the world. The conditions at Atlantic City have been brought about by the rapid growth of the resort. Its large cottage population is a liberal water user or rather waster of water. No system of control seems to be applied and hence, in the warmer season, the demand for water is very great and the surface supply has to be brought into requisition. The city authorities should give this matter careful consideration. An epidemic of typhoid fever or diarrheal disease would work considerable pecuniary damage, and, although this mercenary view should not be the main cause of action, yet as things go, it is an argument that will receive attention.

It may be said that these conditions have existed for some time and yet the general health of the city continues satisfactory. To this the reply is that a noticeable amount of sickness suggestive of impure water has occurred this summer. Several persons have contracted typhoid fever at the locality. The limitation of the unfavorable influences is, in part, due to the fact, above mentioned, that a number of

the hotels have private supplies which are entirely satisfactory. Moreover, the greater number of visitors to the resort are from cities (such as New York, Philadelphia, Baltimore, Pittsburg and some far western cities), that have polluted water-supplies and the residents of which are fairly immune. Further, to produce typhoid fever requires, as far as our present knowledge goes, the introduction of the specific germ into the water. That germ may not be prevalent in the region from which the surface water is drawn, but such absence is likely to be temporary.

The immediate improvements suggested are the enclosing of the reservoirs and the division of them so that frequent cleaning may be carried out. At present each reservoir is a single pool, which can be cleaned only by shutting off the supply completely. In view of the abundance of insect life in that region, and especially of the mosquito, now so well-recognized as a source of disease, it seems advisable to provide covers for the reservoirs. These need not be the expensive stone arches used in some filtration systems, but merely light roofs to protect from certain sources of contamination. The surface water is not fully safe unless filtered, but much benefit would result if it were conveyed in a closed conduit, instead of the open ditch now used, and also if it were subjected to some rapid filtration through sand or coke. It is possible that (as is often the case with deeply-colored waters) this supply is not adapted to purification by alum. If a filtration plant is not established, efforts should be made to add more artesian wells so that the surface supply can be abandoned.

The sewage disposal at Atlantic City is on the separate system, that is, the storm waters are not run into the sewers. The sewage is collected and pumped into a large main and emptied ultimately into the so-called Thoroughfare (the back channel) and flows into the sea. As the borders of the Thoroughfare are low, some of the sewage may get on to the land. The present disposal area is a considerable distance from the residence quarter and no particular annoyance from it is reported by residents. The parts of the city lying along the meadows are in a most disgusting condition of filth and disorder. It seems strange that human beings can live among such surroundings. The contrast between the elegance of the hotels, cottages, boardwalk and some of the piers on the one hand, and the squalor and filth of the back districts, on the other, affords evidence of the great amount of education still needed in municipal management.

The house drainage is of the usual type. In most cottages the bath-room contains a closet, tub and wash-stand. In some of the newest buildings the closet is placed in a separate compartment. The plumbing is as a rule of cheap construction, the local plumbers being kept pretty busy in repair-work. The bowl of the closet is often unventilated, and the location of the bath-room is such that the gaseous emanations from it escape freely into the adjacent bedrooms. The ventilation of the house is less satisfactory on account of the necessity of thoroughly screening all windows, in order to

keep out mosquitoes. Garbage collection is made during the day in a partially covered wagon, and the material is cremated at a large establishment on the meadows. The discharge of the general sewage into the channel back of the island suggests a possible contamination of the animal life in the water in that neighborhood, and is a question which should not be overlooked. The fact that such articles, as oysters, which are eaten raw, may convey serious disease when growing in a sewage-laden estuary is now demonstrated, and all sewage-disposal systems should be constructed with this fact in view.

It will not be necessary to discuss at any length the mosquito pest. Although the State of New Jersey has so far failed to grant substantial aid to those who are endeavoring to abate this evil, yet the study of it is in competent hands and can be left to that care. The conditions appear to be such as not to lead to distribution of malaria, but the insects are unmitigated nuisances, and it is to be hoped that the city will soon recognize the necessity of active steps for the abatement of it. While the best conditions for the breeding of mosquitoes are on the meadows and adjacent lands, one may find, in the best residence quarters even, places where breeding can occur, low areas which at each rain become stagnant pools. These should be filled up. The city authorities ought to exercise a much more stringent supervision over vacant lots and empty spaces. It is not uncommon to find open lots receptacles for rubbish and dead animals and overgrown with offensive weeds. Not infrequently these places are so neglected that the loose sand and bushes spread over the footwalk and obstruct it. A well-conducted municipality would compel all these owners to fence in their lots and keep them clean. There is, indeed, a noticeable lack of adornments and accessories which experts in municipal development consider necessary for the highest life. With the exception of a small area in the midst of some of the most fashionable hotels, Atlantic City has no parks or well-kept open spaces. But little horticultural display is made. Many of the cottages are attractive specimens of architecture, but only rarely is there any attempt at ornamental gardening. Many of the streets are unpaved and imperfectly drained, so that after a heavy rain the water stands in puddles at most of the crossings. Arbor day seems not to have any zealous observers.

Atrophic Retraction of the Stomach with Symptoms Resembling Stricture of the Esophagus.—Soupault reports 4 cases in which the symptoms, dysphagia, epigastric pain, vomiting, etc., resembled stricture of the esophagus, yet which were due to atrophic retraction of the stomach. Food was vomited unless taken in small quantities, slowly. Weakness and loss of flesh followed quickly. The passing of an esophageal bougie showed the esophagus to be normal. But when the bougie was introduced far into the stomach, vomiting and pain were noted. Neither was it possible to outline the stomach, for the area of gastric tympany may be very small or may not be found at all. Death occurred from cachexia in all cases and tiny, retracted, atrophic stomachs were found post mortem. Four other similar cases were collected from the literature. Esophagismus must be differentiated from this condition. (*Le Bulletin Médical*, June 28, 1902.) [M. O.]

Original Articles.

A CLINICAL LECTURE ON A CASE OF GENERAL
TUBERCULOSIS.*

DELIVERED AT GUY'S HOSPITAL, JUNE 11, 1902.

By W. HALE WHITE, M D.,

of London, England.

Gentlemen:—

Some of you may be able to call to mind the post mortem which was made about ten days ago on a little boy, five years old, who had come from John Ward. If you do, you will remember that he presented gray tubercles about the size of a small shot in very many parts of the body. The lungs were quite stuffed with them, and there must have been thousands of them there; you could see them on the pleura, and you could actually see them on the surface of the heart, which is a very rare situation. Coming to the abdomen, there were plenty of them on the peritoneum. You could see them in the liver, you could see them in the kidneys, you could see them in the spleen. And then, going up to the skull, you could see numbers of them in the brain, or rather in the pia mater, running along the vessels. And this afternoon I thought we would go over such a case as this, for unfortunately they are very common. Now I have not told the whole that was found at the post mortem examination, for in addition to these gray tubercles scattered so widely over the body, there was a considerably enlarged caseating bronchial gland. It was softening in the middle, and all the evidence there is goes to show that what happened to that child was that this caseating bronchial gland had been there for some time, that it broke down and from it the whole of the body was, by means of the blood, flooded with a number of tubercle bacilli, and these, getting deposited in various parts of the body, formed the little gray nodules that I have told you were found in so many organs. That being so, it is clear that the first thing in thinking over a case like this, which we have to consider is: How did the child get this trouble? How did that bronchial gland become caseous? You may say, "Oh, it became caseous because there were plenty of tubercle bacilli in it." That is perfectly true, but we must go back a step further and see why the tubercle bacilli came there. Now, a few years ago great stress would have been laid in a case like this upon the importance of heredity. A person who was born of a strongly tuberculous stock was looked upon as almost doomed, and in a case like this the child's ancestors, both direct and collateral, would have been ransacked in order to try to discover whether any of his relations were tubercular; and, if any of them had been found to have suffered from consumption, there would have been satisfaction, for the opinion of the time would have been satisfied; the whole trouble would have been regarded as hereditary. But it is clear that, when the tubercle bacillus was discovered, the question had necessarily to be re-investigated, because we know now that you can have no

tubercular disease without the presence of the tubercle bacillus. And there are clearly, in such a case as this, two possibilities. In the first place, it has been suggested that tubercle bacilli may pass directly from the parent and affect the ovum, and in that way that tubercle is hereditary; and we will to-day consider this possibility and the other. Now, if the tubercle bacillus is going to be directly transmitted from the parent to the child, obviously there are two possibilities, namely, that it may be transmitted either from the male parent or from the female parent. And in the case of transmission from the male parent it is necessary that the ovum itself shall get affected without first of all giving tubercular disease to the female. It is a difficult question, which can only be settled experimentally, whether the male can directly cause tuberculosis in the fetus. Friedmann has performed a number of experiments in this direction on rabbits. His results have not been confirmed, but as far as they go they show that such a thing is possible. But clinically it is of very little importance, because this much appears quite clear, that, unless there is tubercular disease of the male organs of generation, tubercle bacilli cannot be transmitted from the male to the fetus. And you will see easily that in the first place tubercular disease of the male organs of generation is not, after all, so very common, and many of those unfortunate people who suffer from it are far too feeble to become the parents of children. So we may dismiss from our minds the question of whether the bacilli have been directly transmitted from the father to the child, as it is not of clinical importance. The next thing, which is much more important, is: Can tubercle bacilli be transmitted directly from the mother to the offspring? Naturally, before answering that question, you would say: What is the experience of cattle breeders? For they should know. A good deal of work has been done in that direction, and here I have some figures. Some of the best are those of Bang, of Denmark. He took all the young calves in a herd of 208 and injected them with tuberculin and found that only two of those calves were tubercular, and those very slightly. MacFadyean, an English investigator, puts the proportion of calves born tuberculous at not more than one to three per thousand. So, from the animal point of view, the transmission of tubercle directly to the fetus is very rare. But you must be very cautious of immediately transferring those results to man, because we do know that tubercle bacilli behave differently in different animals. For example, guinea-pigs are particularly susceptible to tubercle bacilli. On the other hand, the tubercle bacilli hardly affect goats at all. In birds tubercle bacilli behave in a peculiar way. To keep to the case of animals for a moment, it has been shown directly that susceptible animals may be born with tubercle bacilli in them. One experimenter (among others), named D'Arrigo, has shown that guinea-pigs born of tuberculous mothers may be found stuffed with tubercle, even immediately after birth. So in a susceptible animal like this it is clearly possible for bacilli to be transmitted directly from mother to fetus. How-

* Specially reported for THE PHILADELPHIA MEDICAL JOURNAL.

ever, to return to man, some of you here may remember that last October we were very interested ourselves in the question, because a woman in No. 15 bed in Mary Ward was pregnant and also was very severely affected with phthisis. There are in men several instances on record in which tubercular mothers have given birth to fetuses that had a good deal of tubercular disease in them, and, as you would expect, owing to the blood from the umbilicus going straight to it, the liver is the first organ affected and is found full of tubercle bacilli. In a case like that, tubercle bacilli have been recovered from the blood in the umbilical vein. I have read of many cases in which tubercle has been found in the fetus when the mother has been tubercular, and it has been found so shortly after birth that it could not be a question of infection after birth. But, although I have read of many, it is only because I have happened to be particularly interested in the subject when the woman to whom I have referred was in Mary Ward some time ago. But the cases are really very few, remarkably few, considering the number of phthisical mothers. At that time I brought to the ward an account of a French case and lent one of you the journal containing the account, because it was the best case that I could find. Since then a book on fetal pathology, by Ballantine, has been published, and he quotes the same case that I brought to you. I think, therefore, we may take it as a very fairly typical case. It was the case of a mother who died four days after her confinement. In the mother the lungs, liver, the spleen, the intestines, mesenteric glands and kidneys were tubercular. The genital organs were healthy. The fetus lived twenty-six days, and in the fetus the liver, the spleen, the lungs, the bronchial glands, the heart and the placenta were all tubercular, and animals injected with the fetal organs and part of the placenta and blood from the umbilical vein all died of tuberculosis. There are a few cases on record in which, although the fetus contained no naked-eye tubercular lesions, yet tubercle bacilli were found in it and also bacilli in the fetal blood. But I have mentioned these cases to you as a matter of curiosity, in order that you should know exactly how our knowledge stands. But please remember they are very rare, because, although they are just the sort of cases which would be recorded, only five or six have been placed on record within ten or twelve years. And you will all get impressed with their rarity if you think of that case in Mary Ward. Because, although the mother was riddled with tubercle, the placenta was found to be healthy so that, even when the mother is very badly affected with tubercle, direct transmission to the fetus is very rare indeed. Again, you have to remember, as bearing on this, that usually the mother herself is so ill that it is hardly likely she will bear any children. What I have been telling you about the great rarity of direct transmission from the mother to the child is borne out by the fact that there are few children who have tubercle very early in infancy. That is an important practical point to bear in mind. Infants a few weeks old are rarely found

affected with tubercle. For instance, Lartigau, quoting from Fröbelius, says he found tubercular disease in only 416 infants out of 18,569 dying at ages varying between one and four months. That is very striking, and statistics compiled by other authors show the same facts. It is a very practical point for you to remember in medicine that tubercular disease in children a few months old is rare, and even in the few cases in which it occurs you must not be carried away with the notion that it necessarily means tubercle was directly transmitted from the mother to the fetus, because cases are often found among the poor in which the child during the first few months of life lives in ill-ventilated rooms, in which it is only too likely to inhale the tubercle bacilli from the mother's expectoration.

The sum total of all I have told you is that the direct transmission of tubercle bacilli from the male or female parent to the fetus is so rare that it becomes a mere curiosity, and you can dismiss it from your minds at once as of no practical clinical importance. And that is a matter of great moment for you to remember, because you are often asked the question point blank in practice whether such direct transmission is likely to occur.

Not only is it possible that the tubercle bacilli should pass directly from the mother to the fetus, but a second possibility occurs to you, you say tubercle bacilli themselves do not pass, but something is transmitted—a weakness or a lowered resistance, or something of that sort—from the parent to the child, in virtue of which the child very easily becomes tubercular, having a low resistance to a fortuitous invasion by tubercle bacilli. This again is a question constantly turning up for you in practice. You will be asked about it in regard to marriage, and almost every day of your life in regard to insurance, if you do any life insurance work.

Therefore we have next to consider: Is there transmitted from parent to children a deficiency in resisting power to invasions of tubercle bacilli? Is there a something transmitted comparable, for instance, to the transmission of epilepsy or insanity? With regard to that, before you begin to think about it, please be very cautious what you read. I hardly know of any paper or collection of figures on the subject which are worth much, because the fallacies in the evidence are so numerous; for instance, you have only, generally speaking, the person's word for it that the parents were tubercular. Supposing a man is tubercular and is cured when young, what likelihood is there that a son, say at thirty-five years of age, will know that his father was tubercular and that he had been cured of it? Another fallacy is that very often these diseases are called by incorrect names. Phthisis is called pneumonia, and sometimes it is called bronchitis, sometimes with the intention of deceiving, sometimes from ignorance. Again, many a case, as Professor Tyndall showed in the *Nineteenth Century*, many a case which appears hereditary is one of direct infection, because the child is brought up in a stuffy and ill-ventilated cottage and is associated with parents who are tubercular. There are some excellent cases published with regard to the cottag-

ers of Scotland by Dr. Clifford Beale. Professor Tyndall's were taken from the Swiss cottages. In country cottages which are stuffy and ill-ventilated the mortality is often as great as it is in big towns. Another fallacy is that tubercular people are often weak and the mother will be found unable to nourish her child well, either before or after birth. Again, these people are generally inefficient breadwinners and therefore they are unable to provide proper food for the child. These are only some of many fallacies, so the difficulties are enormous in dealing with collections of figures bearing on the point. The difficulties are not only those of evidence, but of reasoning. People go to a hospital like that at Brompton and say that they find such and such a percentage of people in Brompton Hospital have consumptive parents. Well, that evidence is not worth writing down unless they also bring forward the number of people there are in the world who are not at Brompton and yet have consumptive parents. The best publication which I am aware of that deals with the matter in a reasonable way is one by Mr. Manley, who is actuary to the Mutual Life Insurance Society. The result he gives is this: If you insure people who at the time that they propose to insure are apparently perfectly well, but who give a tubercular history in one or both parents, you must add about five years to their age, to counteract the tendency that they have to a shorter expectation of life than the normal. The people from whom these results are deduced are apparently perfectly well at the time the proposal is made, and careful physical examination and inquiry into the history fails to detect any evidence of tubercle in them. These figures clearly show that there is probably a something inherited which makes the child of tubercular parents, even though it is apparently healthy, to have a less expectation of life than the normal. It does not prove exactly what we want to know, you will notice, because it only proves that the expectancy of life in persons with tubercular parents is less than it should be; but we do not know that all these persons with tubercular parents will die of tuberculosis. Mr. Manley's statistics do not go as far as that; they only show that the expectation of life is less. It is true there is an offset to that, namely, that the figures appear greatly to understate the probability that a direct inability to resist tubercle bacilli is inherited, because they take no account of the people who, having inherited this lowered resistance, die of tuberculosis before they come to insure their lives.

Please do not think this discussion has been mere waste of time; it has not been. And let me sum up by stating once more, because you will always be asked about it, there is no evidence that direct transmission of bacilli from parent to offspring is otherwise than so rare that you may set it aside; but there is distinct evidence that there is transmitted from the parent to the child a lowered resistance, in virtue of which the expectation of life is less in those of tubercular ancestry than those who have not such an ancestry. I might mention that Dr. Claud Muirhead has lately analyzed the figures of

the Scottish Widows' Association, and he comes to much the same result.

Now, to go back to our child, we may conclude with regard to that child that it is quite possible the child inherited some lowered resistance to tubercle bacilli. You will say that is all you have done, but you have not told us how the tubercle bacilli get in. The tubercle bacilli, we believe, either get in by inhalation or by the food, and the inhalation we will leave for the moment and consider the possibility of the child having got its tubercle bacilli by means of the food. That is a point of great practical importance to you. Parents will begin talking to you about it directly you get into practice. In the first place, again let me impress upon you the importance of bearing in mind the fact that tubercle bacilli in different animals differ in their behavior, just as various races of mankind differ from each other. You know that tubercle bacilli in birds will flourish when you introduce them into other birds, but not when you introduce them into mammals. Then, again, let me quote to you this experiment: Carp were injected with the sputum of tubercular patients, and nodules developed upon the carp. Tubercle bacilli taken from those nodules were injected into guinea-pigs and the guinea-pigs were not very much the worse for it. If the tubercle bacilli had been injected straight into the guinea-pigs, they would have been killed, for there are no animals more easily killed by tubercle. So the passage of tubercle bacilli through the fish greatly modified them. Again, even different breeds of swine, but of the same species, are found to react to tubercle bacilli differently. So it will be, in what I am going to tell you now, very important for you to remember that the same bacillus behaves very differently in different animals, and therefore you must be very cautious in transferring to man the results of experiments on animals. Until last summer it was accepted all the world over, I think, so much accepted that you would have been looked upon as a heretic if you attempted to doubt it, that tubercle bacilli from cattle can infect human beings; and it was not until Koch gave his celebrated address on the subject that any doubt was raised in the matter, at any rate in the mind of the profession and the public, although it is only fair to say some had doubted it, but they were men who were crying in the wilderness. Koch said he believed that tubercle bacilli derived from cattle could not infect man, at any rate through the food. The matter is clearly of the very greatest importance, because milk drawn from cows with tuberculous udders may swarm with tubercle bacilli. Please remember it is of no use in this argument to bring forward any cases in which milk containing tubercle bacilli has caused tuberculosis in guinea-pigs. We must keep to man, for the reasons I have given you, namely, tubercle bacilli behave so differently in different species. Koch's reasons were these: His first argument was that he could not induce tuberculosis in cows by means of tuberculous human sputum, and he said, though that was not proof, that it was suggestive that the converse

would be true, namely, that tuberculosis in human beings could not be induced from cows. He performed the following experiments. He took 19 healthy cattle and introduced human tubercle bacilli into them, sometimes by swallowing, sometimes by injection. The cattle were killed a sufficient while afterward, but in no case had the human tubercle bacilli flourished in them or produced tubercular disease. He fed six young swine for three months on tubercular sputum, but the animals remained healthy and grew lustily. At the end of three and a half months they were killed and no traces of tubercular disease could be discovered in them. Other people have done similar experiments and many have confirmed Koch's results; and when the results have not been confirmed, it is often extremely probable that the infection was a mixed and not a pure one. So from these experiments the contention is that, if tubercle cannot be directly transmitted from man to cows, it is unlikely that tuberculosis can be directly transmitted from cows to man. You will say that it is only unlikely, but have you any direct proof that tuberculosis cannot be transmitted from cows to man? The first thing is to take the case of wounds. There is a case on record of a butcher, who, when slaughtering a tuberculous animal, cut himself and he developed tuberculosis in the wound. But remember the number of instances pointing in the other direction are very great indeed. For example, at the time that carcinoma and tuberculosis were thought to be antagonistic, a number of subjects of carcinoma in Germany were injected with tubercular matter, but no tuberculosis occurred in them. Again, there is the case of a veterinary surgeon who was aspirating a tubercular abscess in an animal; the animal lurched at the time and the syringe of tubercular matter went into the surgeon's hand, but the man developed no tuberculosis. And the whole evidence is to the effect that direct transmission by wounds is so rare as to be a mere curiosity. Another important point for you to remember is that, if tuberculosis were transmitted by milk, we should expect to get great epidemics of tuberculosis, especially in children. Everybody knows that we have had epidemics of scarlet fever disseminated by means of milk, and epidemics of diphtheria and of typhoid propagated in the same way, and one has been able to name the particular dairy from which the mischief arose and to trace the people who have had milk from that dairy and who were affected. But there is no such epidemic on record with regard to milk and tuberculosis. If what was thought to be true was true, namely, that tuberculous milk causes tuberculosis in children, we should expect to have plenty of epidemics reported by medical officers of health; we should hear of hundreds of children in a particular locality dying who had milk from a particular dairy, but no such cases are forthcoming.

Another argument is: Supposing tuberculosis were directly transmitted by milk to children, we ought, in post mortems on infants, to find primary tuberculosis of the intestine and mesenteric glands very common indeed. Let us examine and see if

that is so. Koch says it is not so. He says he has only seen in young children primary gastro-intestinal tuberculosis twice in his life. Again, he says among a great many post mortems performed on children at the Charité Hospital at Berlin there were only ten cases of primary tuberculosis of the bowel in five years. Again, among 3,104 post mortem examinations on tuberculous children, Biedert only found sixteen cases in which it was primarily of the intestinal tract. Dr. Still who used to be here, but is now at Great Ormond Street Children's Hospital, has gone carefully into the question, and I will write upon the board figures which he obtained. The question which he wanted to solve was this: Was primary tuberculosis of the gastro-intestinal tract particularly common in young children, as one would expect it to be if tubercular milk gives rise to gastro-intestinal tuberculosis? His figures were as follows, and he contrasts the number of deaths in post mortem work from the respiratory system with the deaths in which the trouble was in the gastro-intestinal tract. Here are his figures:

	Primarily Respiratory.	Primarily Intestinal.
Under 6 months the proportion was	10	None
6 to 12 "	22	5
1 to 2 years	44	15
2 to 3 "	21	6
3 to 4 "	21	11
4 to 5 "	12	2
5 to 6 "	9	7
6 to 7 "	4	7
7 to 8 "	3	3

Look and see what those figures teach us. They show that at the very age when the child is fed exclusively upon milk the proportion of gastro-intestinal primary tuberculosis to pulmonary primary tuberculosis is actually less than when it takes other food. So those figures, to my mind, are very strong evidence in considering this argument, that the child does not, at any rate, commonly get infected with tuberculosis by the use of tuberculous milk. My own impression, derived from the post mortem room, certainly is that primary gastro-intestinal tuberculosis in children is comparatively uncommon, and you will remember that in the child whose case we are considering the intestine and mesenteric glands were quite healthy. Lately it has been said that, after all, even if tuberculous milk does not cause primary gastro-intestinal tuberculosis, it causes tuberculosis of the tonsils, but it is as likely that infection should take place more by the air breathed as by the food taken. You will say: Why is there such a fuss throughout the country about this question of tuberculous milk? The reason is this: In the first place, everybody had the notion, because they thought it was probable, and so they did not stop to inquire whether it was true. There is the further reason and it is here in the statistics published by Dr. Tatham and Sir Richard Thorne-Thorne; they say in the last forty-five years there has been a reduction of 27.9 per cent. of deaths from all forms of tuberculosis. In phthisis the reduction is 66 per cent., while the corresponding reduction in *tabes mesenterica* was only three per cent. From this it is correctly concluded

that the frequency and fatality of *tabes mesenterica* is not declining as rapidly as the rest of the forms of tuberculosis, and this is thought to be because we have improved our general sanitary conditions and so phthisis, which is due to infection by the respiratory tract, is less common. But, it is said, look how *tabes mesenterica* still remains at a very high number. Why? Because, the argument runs, children are fed upon tubercular milk. But the fallacy of the whole thing is obvious. These figures were drawn from death certificates. There is not one post mortem in a thousand of the children who die, and when the doctor is not sure what may be the cause of death he often says that it is from *tabes mesenterica*. The moment these figures were published, Dr. Still and Dr. Wills and Dr. Carr brought forward figures to show that primary gastro-intestinal tuberculosis, as verified by post mortem examination, was by no means a common cause of death in young children at the time when they are fed upon milk, and there is no doubt that it is a grave error to assume that the *tabes mesenterica* of a death certificate means tuberculosis. Goodness only knows what it does mean in many cases, but it certainly rarely corresponds to primary gastro-intestinal tuberculosis. You may say: How does this bear upon the case which is the subject of this clinical lecture? I want to urge upon you that probably this child did not get its infection through its gastro-intestinal tract. If you will go back to the account of post mortem you will find that the child had an old caseous bronchial gland and that its gastro-intestinal tract and all its mesenteric glands were free from tuberculosis, and therefore the primary infection was not gastro-intestinal but respiratory. Do not go away with the impression that I am arguing you should use tubercular cows from which to draw your milk-supply; our object this afternoon has been to get at the truth and see whether food is a common cause of infection. The truth, I believe, is that it is an uncommon cause. Nevertheless, I should much prefer to know there were no tubercle bacilli in the milk upon which the child was fed, for there is no evidence to show that milk is never a cause of infection.

So much for the way in which this child got its tuberculosis. Most likely it was not by food; it was probably, therefore, by inhalation, and the fact that it was the bronchial gland which was affected confirms this.

Now for some clinical symptoms shown by this child. I told you that at the post mortem examination it was crammed with miliary tubercles in most parts of its body. In many parts of the body the presence of miliary tubercles does not give rise to symptoms, and, whatever part of the body you are considering, you must, clinically, always draw a very sharp line between chronic and acute tuberculosis. For instance, this child had a number of little tubercles scattered about in its kidney. As far as we know, acute miliary tubercles there give rise to no symptoms, but you know that a chronic caseating kidney gives rise to pyuria, pyrexia and other serious symptoms. Or, take the peritoneum,

you know that acute miliary tubercles scattered about in the peritoneum, such as were present here, frequently give rise to no symptoms during life and, if they do, usually they are quite overshadowed by the greater importance of the symptoms owing to the affections of the lungs or meninges. But, on the other hand, chronic tuberculosis of the peritoneum leads to caseation and fibrous adhesions and many things of that sort, which cause great lumps in the abdomen and altogether make a very striking case. Again, take the heart. Tuberculous pericarditis is a definite, although rare, rather chronic disease. But acute miliary tuberculosis of the pericardium gives rise to no symptoms.

You may say: What are the parts of the body that I can look to to give me evidence by which I can diagnose this acute condition? I do not think you can diagnose it ordinarily in any other parts of the body than in the lungs and in the brain. It is true that the books describe a form of tubercular peritonitis in which not many nodules are found in the peritoneum, but a quantity of ascitic fluid; but my experience is that in such cases the symptoms of peritonitis are overshadowed by the symptoms in the lungs and brain. And, for practical purposes, I do not think you can diagnose acute miliary tuberculosis in any other situations in the body than in the brain, lungs and choroid. First of all, let us take the lungs, and I do hope now I can give you a picture of what happens, because these cases in which the lungs are giving rise to symptoms, and not the brain, are so frequently overlooked. In the first place, you must dissociate what we are going to talk about from phthisis. In phthisis there are physical signs which are nearly always most marked at the apex of the lungs. In acute miliary tuberculosis of the lung the disease is not confined to any part of the lungs; it is scattered all over them; there are hundreds and thousands of little tubercles scattered and disseminated all over the lungs by the blood coming from the primary focus. In this child the primary focus was a bronchial gland. In chronic phthisis the tubercle bacilli get into the lungs because they are inhaled, and they settle into the apex. In acute miliary tuberculosis they get into the lung by the blood and become diffused all over it. I grant that there may be intermediate cases, but we cannot, from lack of time, go into that now. Nearly always in this acute miliary tuberculosis of the lung the patient is dead long before the tubercles have time to caseate or form fibrous tissue. When you are face to face with a patient like this, if there is no meningitis to help your diagnosis, this problem comes before you: There is a patient obviously very ill, as I know by the fact that the temperature is ranging high and the pulse is very rapid. I have been over the body very carefully, but I cannot find any physical signs to account for the condition. Such patients lie in the hospital here day after day and get into their second and third week, but still the problem remains: What can be the cause of the pyrexia? You say: I have nothing before me but a patient obviously ill, with a high temperature and rapid pulse, and

it is often a very rapid pulse. The first indication of what is at the bottom of the trouble is usually to be found in an increasing rapidity of respiration; the respirations become more rapid than the rise in temperature would lead you to expect. Well, directly that occurs you should begin to ask yourself whether you have not a case of acute miliary tuberculosis of the lungs. Then the next thing which strikes you is that the patient is getting a little dusky about the cheeks and you find a little lividity about the lips. You look at the finger-nails and find that they are a trifle livid, too. That, to a practised eye, is almost proof, met in such a patient as this, that you are dealing with one who is suffering from acute miliary tuberculosis of the lungs; and often these patients die without any further evidence being forthcoming until sometimes just a short time before the end. In fact, often no further evidence of the cause of the illness is forthcoming, but usually you discover a few physical signs in the lungs and these signs usually are a little fine crepitation here and there, not necessarily at the apex, or rhonchi or rales. This report tells us that this was all that was found in the lungs in this case, and even that was not observed until a few days before the death of the patient. Usually there is no abnormality in the percussion note or voice sounds. In children there may be a little dulness owing to collapse of the lung in between the tubercles. Expectoration is often completely absent, partly because the tubercles are not affecting the bronchial mucous membrane and are not setting up bronchitis. Be the cause whatever it may, the clinical fact to be remembered is that these patients often have no expectoration; even when there is, it is only bronchitic expectoration and there are no bacilli discernible in it. Sometimes these patients bring up a little blood, but that is rare. They get weaker and weaker, the temperature remains high, the pulse remains rapid, and as they get weaker they sweat. There are the general signs of fever, such as a trace of albumin or a furred tongue, and if the lividity is great there may be a trifling swelling of the feet, but nothing to be of much value to you. The feebleness increases and the patients are often dead in four to six weeks from the commencement of the illness. It is a condition which may occur at any age, but, inasmuch as it is often associated with meningitis, it is most common in children.

You may say: Can this disease, acute miliary tuberculosis of the lungs, be mistaken for anything? Generally speaking, for the first weeks you cannot make up your mind what is the matter with the patient, who is usually suspected to be affected with typhoid fever. Later on physical signs appear, and the case is then often mistaken for acute bronchitis. But with a little care I think that should be avoided. What leads to the error is that sometimes this condition of acute miliary tuberculosis develops in lungs which are already emphysematous. The disease is uniformly fatal and what I have described to you are just the symptoms which you might expect in a typical case, and the disease in the lungs would have carried off the child we are discussing if it had not died from its tubercular meningitis.

With regard to tubercular meningitis I do not propose to go over all the points of it, because I have already given you a lecture on the subject this year and it would take so long now. But I will proceed to direct your attention to a few particular points about this case.

When the child came in, the mother said it had a cough, which is suggestive that these patients do have a cough very frequently. Then one of the first things which interested us in the case was that the mother said the child had had an ear discharge. The report on the case is a very long one, but the striking facts about it, when the patient first came in, were that there was some right facial paralysis involving the lower part of the face, and the tongue deviated to the right; the left leg was weak, but the extraordinary part of the case was that all these symptoms passed off within a week of the child's admission. This fact made the diagnosis very obscure indeed. I took the case on after those symptoms had passed off, and when I saw the patient the striking symptoms were these: On the 21st. of May we noticed that the pulse had been getting slower and somewhat irregular and we also noticed on the next day that the pulse was still slower and irregular, that the patient was very drowsy and had a slow way of responding to anything that was said to it, a kind of slow cerebration. If the patient had been older, that symptom would have been more striking. In older people in this state, if you ask a question, the patient will apparently drop asleep again before answering it. The child lay there in bed very drowsy, its pulse was getting slower, and the whole condition, from the symptoms, was very suggestive of cerebral abscess, especially as the temperature was only a little raised. No child should die of cerebral abscess, especially as in this case there was a history of ear discharge which might have caused the abscess. It is a disease which certainly ought to recover after operation. We knew pretty well that it was not a case of thrombosis of the lateral sinuses secondary to ear trouble, but we thought the disease might be an abscess, but we were not sure. We had before us the possibility of its being meningitis, but, if it were, nothing could be done to save the child's life. But if it were abscess, it might be saved and, reasoning in this way, I asked Mr. Dunn to see it. He trephined and made search for the abscess, but without success. That being so, the diagnosis of meningitis became certain and later on confirmatory signs developed. But even then I was not quite on the right track about the case, because with the history of ear discharge I was inclined to think the meningitis was due to that. It was not and we had then no pulmonary signs to put us on the right track. We did not forget to look at the eyes. We looked at them, but found no tubercles on the choroid. But on looking after death there was a large tubercle on the choroid of the right eye. It was so large that we could hardly have missed it when we examined the eye if it had been there, and therefore we learn that it must have developed very quickly, which accords with the fact that only one was found, for usually at death they are numerous in both eyes. And that leads me to the last point, namely, that you should always search the eyes, because tubercles in the choroid are by no means infrequent in cases of general miliary tuberculosis, especially when the tuberculosis affects the meninges, and as you actually see the tubercles with the ophthalmoscope, it is proof positive of what is the matter with the child. More than once I have been able to settle a doubtful diagnosis definitely by examining the eyes and finding tubercles. I looked at the eyes in this case only a day or two before the operation, but could not find anything abnormal. If a tubercle of the choroid had been there, trephining with a view of finding an abscess and evacuating it would not have been undertaken.

MEDICAL REPRESENTATION IN HOSPITAL MANAGEMENT.*

By AUGUSTUS A. ESHNER, M. D.,
of Philadelphia.

Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital; Assistant Physician to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Physician to the Hospital for Diseases of the Lungs at Chestnut Hill.

In a spirit akin to pride medical men have been prone to confess to a lack of business ability, until not only have they themselves come to believe in it, but they have also convinced the laity thereof. While it may be true that the physician dislikes, as a rule, the keeping of accounts and is a lenient creditor, it must not, therefore, be concluded that he is deficient in the higher qualities that contribute to the making of a successful business career. He may perhaps be unskilled in the tricks of trade, but his integrity is generally unimpeachable; he is loyal to his trust and can be relied upon to fulfil his obligations, written and unwritten.

It should be remembered that the practice of medicine, although it has business aspects, stands upon an entirely different and much higher ethical plane than commercial pursuits generally. Medicine has always been, and let us hope it will ever continue to be, a learned profession, and those engaged in its practice must be more than mere business men and governed by other than merely commercial instincts. It would be a mistake, however, to conclude that the physician is thereby disqualified from the possession of executive or administrative ability, as well as sound business judgment. On the contrary, he is, by reason of his training, his attainments, his position and his relations with others, especially fitted for the exercise of the qualities named. Of the truth of this statement evidence exists on all sides. At the same time, the physician is by reason of his pursuits and his opportunities disinclined and, therefore, perhaps in a sense disqualified from engaging in ordinary business activity, although there are certain fields of such activity for which often he is inclined and for which he is especially equipped and qualified. I refer particularly to hospital management.

There has grown up in some quarters a belief, to the development of which the medical man has himself in no small measure contributed, that the physician is unsuited by inclination, temperament and ability even for this phase of business activity, so that by written or unwritten law he is in some places excluded from participation in those business affairs for which, as we have said, he should be, and generally is, most eminently fitted and qualified. To such proportions has this fallacy grown that certain lay boards of hospital management have permitted the opinion to go forth that hospital management is a matter of pure business and that the medical officers are to be looked upon as mere subordinates, to receive and carry out the directions of their superiors, the lay managers. There has, it seems to me, occasionally been too ready assent to this proposition on the part of medical men and others, to the detri-

ment, I am sure, of the institutions in which the ideas under consideration have prevailed.

The true and correct conception of the relations that should exist between hospital management and medical staff is that which makes one co-ordinate with the other, and not subordinate, so that each supplements and complements the work of the other, to the end that the efforts of both will be strengthened in their mutual co-operation. Even if it be admitted that laymen are better fitted than physicians for the conduct of the business affairs of a hospital, it will surely not be denied that the medical man is the better equipped for the decision of matters that must constantly arise in hospital management and in which his judgment is absolutely necessary. Such advice, it goes without saying, should be accessible within the board, or it should be sought from the members of the medical staff rather than from others. The successful administration of the affairs of a hospital, therefore, requires such a division of labor as assigns responsibility for all purely business matters to the lay managers and for all purely professional matters to the medical staff. In this way the two important aspects of the work of the hospital will be in the hands of experts, between whom there must, of course, exist the most perfect harmony and cordial co-operation in order to attain the best results most economically.

There are several ways in which satisfactory representation can be given the medical staff on the board of a management of a hospital:

1. By electing one or more members of the staff to membership on the board.
2. By periodic conferences between the staff and the board.
3. By conferences between a committee of the staff and the board or a committee of the board.

As an illustration of the embarrassing complications to which a contest between a lay board of managers and the medical staff of a hospital may give rise, the recent experience of the National Hospital for the Paralyzed and Epileptic, Queen Square, London, serves as a luminous example. So pronounced, indeed, became the differences between the managers and the staff that the very existence of the hospital was threatened. In fact, the usual grant from the Metropolitan Hospitals Sunday Fund was for a time withheld. For many years the staff of this hospital, including the names of some of the most distinguished neurologists and surgeons in the British Empire, had appealed in vain for representation on the board of management, for the worthy and unselfish purpose of increasing the efficiency and the usefulness of the institution and establishing direct and cordial relations between the staff and the board. Denial of this appeal was based on the ground that the independence of the board would be endangered by the presence of medical members on it and that the philanthropic aspects of the work would be subordinated to those of a merely scientific and investigatory character. Finally, the acts of a paid official with the authority of secretary and general director as a representative of the board became so objectionable and intolerable

*Read before the American Academy of Medicine, June 9, 1902.

that the medical staff carried their appeal to the governors of the hospital and, after a long struggle, succeeded in gaining their point. As a result the medical staff were accorded two representatives on the board of management among twelve, the office of secretary-director was abolished and the selection of a senior house-physician, of a secretary and of a lady superintendent was recommended. Finally, as a fitting climax, the old board of management was turned out and an entirely new one elected in its place.

The experience thus briefly outlined should serve as a guide of action for institutions in which lay boards of managers arrogate to themselves powers that it was never intended they should exercise, and undertake the performance of duties for which they are unqualified and in connection with which the medical man must be looked upon as an expert.

The several objections that have been raised to the presence of medical men on boards of hospital management are specious and will not hold water. Thus it has been suggested that a medical man would not be unprejudiced if the acts of a medical colleague became a matter for discussion and criticism. There is no reason to believe that the medical man is less lacking than his lay colleague in the judicial quality—indeed, his scientific training is peculiarly calculated to develop this—and it is only fair to assume that he is not less capable of forming an impartial opinion on all medical matters. The objection, that the presence of medical men on the board of management would result in subordinating the more humane work of the hospital to scientific and experimental observations, carries its own refutation. Surely the physician is second to none in consideration of the welfare of those entrusted to his care, and patients are best treated in those institutions whose medical officers are distinguished for their scientific zeal.

That the opinions expressed in this communication are not those of medical men alone is shown in a symposium on the question of hospital management arranged by the editor of the *Practitioner*, of London, and participated in by both laymen and physicians. It was the unqualified consensus of opinion that "some kind of representation of the medical staff on the governing body is a necessary condition of the successful management of a hospital." "Not one of the writers," the editor of the *Practitioner* goes on to say, "maintains that a hospital can be carried on by lay governors or officials without regard to the opinions and wishes of the medical staff." The Prebendary of St. Paul's, who was for ten years chairman of the Committee on Management of King's College Hospital, thinks it essential, if the management of a hospital is to take due account of all its varied needs, that it should be kept in constant touch with the medical staff by direct and immediate communication. He holds that this can be effectually secured only by their personal representation on the governing body. In his opinion "the ideal condition of a Committee of Management is thus one in which men of business, who represent the practical purposes of the charity and who are accustomed to dealing with public

affairs, are predominant and in which the various professional interests, which are essential parts of a modern hospital, have a secondary, but an adequate representation." The medical staff of the Royal Free Hospital are directly represented on the Committee of Management by two members, a physician and a surgeon, nominated annually by the Medical Committee, but elected by the governors. One of these members is also a member of the Weekly Board and regularly attends its meetings. This arrangement has been found of mutual advantage to both lay and medical authorities.

A member of the Managing Committee of the Children's Hospital recommends that the medical staff should form a committee of their own members to deal with professional questions that may arise among themselves or that may be referred to them by the managing committee. The secretary of the Seamen's Hospital lays down the principle that no hospital board can have a right sense of the duties devolving on it that does not take into its closest confidence the physicians and surgeons who have charge of the patients. This end, he thinks, may be attained either by having the members of the medical staff or a certain number of them, sit on the board of management. His own preference is for a lay board and a council of the medical staff.

The medical contributors to the symposium are naturally in favor of some form of professional representation, and they cite a large number of instances in which the wisdom of this plan is conceded by its continued and satisfactory application. In concluding his remarks on the evidence presented, the editor of the *Practitioner* holds that "it is clear that there is a consensus of opinion, lay and medical, that in the management of hospitals the medical element cannot be excluded without detriment to the interests of the sick poor, for whose relief they have been established."

PRESERVATIVE SOLUTIONS FOR GROSS SPECIMENS.

By RANDLE C. ROSENBERGER, M. D.,
of Philadelphia.

Demonstrator of Bacteriology, Jefferson Medical College.

One is constantly being asked what is the best solution for keeping a heart, brain, liver, in fact any organ, tumor or interesting pathological specimen. Most of the solutions of to-day contain formalin or formaldehyde in a greater or less amount. This substance is very irritating to the nasal mucous membrane, the eyes and also the hands, which are much affected by it. The skin becomes tense and the fingers seem hard, and, where small cuts are present, quite a marked degree of inflammation may take place.

Rubber gloves should always be worn when handling specimens in formalin or solutions containing formalin. If the specimen is to be preserved and kept permanently in a jar without subsequent handling, a five or ten per cent. solution of formalin is very satisfactory. This solution has other disadvantages in addition to irritating the skin and mucous membranes; it causes a marked contraction

or shrinking of the specimen, especially the softer organs, like the liver, lung or kidney. The natural consistency of the organ is also lost, it becoming hard and brittle in some cases. Again, the natural color is not preserved, very perceptible bleaching is observed in nearly all specimens.

One advantage a formalin-containing solution possesses is that microscopical examination of specimens can be made at any time after the primary immersion. At one time absolute alcohol or 95 per cent. alcohol was used entirely for the preservation of tissues or organs. This method is extremely costly and the jar would have to be hermetically sealed. Other disadvantages of alcohol beside the cost are that bleaching of the specimens takes place and that the specimens get harder and firmer than normal. If, however, the specimen is placed in absolute alcohol, microscopical examination can be made at any time.

A solution used to a great extent in the Jefferson Medical College is made up as follows:

Alcohol (95%)	2 parts
Glycerine	1 part
Water	1 part

The specimens are first washed for several hours in running water; they are then placed in the solution and kept indefinitely. With this solution there is no shrinkage of the specimen, the natural consistency of the organ is very slightly altered and the color does not bleach as markedly as if pure alcohol were used alone. Another advantage is that the solution is nonirritating to the hands. It has been used in the laboratory of morbid anatomy for a number of years and with great satisfaction both to the student and teacher.

Kaiserling's fluid is quite an ideal preserving medium. It consists of two solutions: (1) Fixing, (2) preserving.

The first solution consists of:

Formaldehyde	200 cc.
Water	1000 cc.
Potassium nitrate	15 gm.
Potassium acetate	30 gm.

The specimen is first thoroughly washed in water and then placed in solution No. 1 for from one to four days. It is best to place absorbent cotton or oakum at the bottom of the jar, so that the specimen is not injured by pressure against the jar and the fluid can get around the specimen equally.

After remaining in this solution for the required time (this is determined by the size of the specimen) it is next placed in 80 per cent. alcohol for 24 to 48 hours, then in 95 per cent. alcohol for 24 hours and it then placed in the final, or No. 2, preservative.

This solution consists of:

Potassium acetate	200 gm.
Glycerine	400 cc.
Water	2000 cc.

By placing the specimen in the 80 per cent. and then in 95 per cent. alcohol it brings back the color which bleached slightly in the first solution. Always use rubber gloves when removing tissue from the first solution to the alcohols. This method of preserving organs and other tissues is one of the best as regards the retaining of the normal color

or colors. The color is said to fade if the specimens are kept in daylight and that they should be prepared and changed about from one solution to another in the dark. No doubt, direct sunlight would bleach the preparations, but distinctly dark surroundings are not absolutely requisite. The only real objections, possibly to some no objections, are the formalin solution which is distinctly irritating if rubber gloves are not used, and, secondly, that the specimens dry very rapidly in the course of a demonstration if removed from the container, so that a specimen preserved by Kaiserling's method should be exhibited in a jar and not taken out for demonstration purposes. This in the writer's opinion is a serious objection when teaching morbid anatomy, when the student should be taught not only to see the specimen but to handle and feel the same.

"Slabs" of organs show very well after the outer or superficial layers are trimmed off.

Microscopical examinations can be made of sections which have been taken through the above (Kaiserling) method. Sometimes specimens are left in the 80 per cent. and 95 per cent. alcohols only 2 to 6 hours, but a longer exposure to these solutions is far better. When a specimen is small, i. e., a typhoid ulcer or a small tumor (papilloma or a nevus), a short exposure may suffice.

One of the best solutions for preserving the normal consistency of an organ or tissue and, to some extent the color, is that recommended by Galt.¹

This solution consists of:

Salt	5 oz.
Potassium nitrate	1 oz.
Chloral hydrate	1 oz.
Water	100 oz.

The specimens are first thoroughly washed in water and then placed in alcohol (95 per cent.) for 6 hours or 6 days. Formalin can be used instead of alcohol, if desired, but a shorter exposure is to be recommended instead of 6 days, 6 to 8 hours would seem sufficient.

They are then placed in the solution and they keep indefinitely. No injurious effect is noticed upon the hands after handling the specimen, and they can be left out of the solution for a long time without injury (1 to 2 hours). It is claimed that good microscopical preparations can be made from tissues or organs treated with this solution.

It is certainly a solution to be recommended, as a student, being naturally very skeptical, will appreciate a tissue normal in consistency and of normal color to one bleached and hardened by alcohol alone or by formalin.

One slight objection to this fluid is that evaporation takes place rapidly if the lid of the jar is not fitted very tightly. This leads to the accumulation of crystals upon the top of the jar, under the lid and around the edges, which crystals, however, are not hard to break up. As evaporation takes place, new fluid need not be added, simply add distilled water. Sometimes a grayish sediment occurs in the solution; this is removed by filtering. If the blood

1. London Lancet, Nov. 16, 1901, p. 1334.

is removed thoroughly from the organs by washing the fluid will remain clear.

A solution which is used to a great extent in the injection of bodies for the purpose of retaining the tissues and organs as normal as possible is one recommended by Hewson².

It also contains formaldehyde and is made up as follows:

Sodii arsenate	2 kilos
Potassium arsenitis	1 kilo
Aq. bull.	7850 cc.

Boil until a complete solution is effected, then add

Glycerine	2000 cc.
Formaldehyde	100 to 150 cc.

The first solution recommended by Hewson did not contain the potassium arsenitis. As "this increases the solubility of the arsenic solution," it was consequently added.

When a body is injected with this solution, in 15 minutes the skin becomes red as in life and the mucous membranes more life-like. When the body is dissected, "the parts are just as they existed in life, in color and consistency." The brain is to be removed as soon as possible and allowed to remain in the fluid three or four weeks. At the end of this time "it will be in good order, with its color perfect, the consistency slightly hardened. In the cases of organs to be preserved, they can be immersed in the fluid and will retain their natural color and consistency, the latter depending upon the viscus."

Hewson suggests that the amount of formaldehyde should be increased (300 to 500 cc.) in the above-named solution when dealing with nervous tissue. He has found that a brain removed at post mortem examination, placed in the calvarium, will in 48 hours "be sufficiently set not to spread when put in the solution by itself."

Microscopical preparations could no doubt be made of tissues preserved in Hewson's fluid, as in Kaiserling's solution, but the writer has had no personal experience with this solution for this purpose.

A glycerine jelly for mounting and preserving specimens, recommended by Hamilton³, is prepared as follows:

Gelatine (French)	8 gm.
Glycerine	80 cc.
Boracic acid sat. sol. in water	240 cc.
Glacial acetic acid	2 m

The gelatine is soaked in the boracic acid, the glycerine is added and the white of an egg; shake thoroughly. Boil upon a water-bath and, when the white of egg has nearly all been precipitated, mix with glacial acetic acid. Filter through paper. After soaking all the blood out of the tissue, place it, preliminary to mounting, in a mixture of 1 part glycerine and 2 parts saturated boracic acid solution. It should remain in this for a fortnight until the solution has thoroughly penetrated and until the preparation ceases to soil the liquid. Change liquid as often as it becomes discolored.

This mixture, as is seen from the above description, is one requiring a little time to prepare, and one not much used at the present time. Only small

organs or slices of organs can be shown by this method, as the eyeball, brain, etc.

This jelly method is not conducive to good sections for microscopical study.

Another jelly preparation is used in which the tissue is fixed by Kaiserling's method, or 5 per cent. or 10 per cent. solution of formaldehyde, and then placed in melted gelatine, which is then set aside to harden. Air bubbles are likely to make their appearance in these preparations and, when they appear upon the surface, can be made to disappear by drawing a hot wire across this affected surface. The gelatine can be made to harden very perceptibly and permanently if the preparations after mounting are placed in the vapor of formaldehyde for one or two days.

SYPHILITIC NECROSIS OF THE NASAL CAVITY, ACCOMPANIED WITH TOTAL BLINDNESS.

By CHARLES A. TODD, M. D.,
of St. Louis, Mo.

Physician to the Clinic for the Ear, Nose and Throat in St. John's Hospital.

The case here described of syphilitic disease of the nasal cavity is of interest outside of rhinology because of the ophthalmic complication.

December 11, 1899, Mr. V., aged 47, butcher, was sent to the clinic by Dr. Wilson, of the Eye Department, for nasal treatment, he suffering at the same time from total blindness. I found almost complete destruction of the nasal septum, so that there was a common cavity, and this lined with a black, dry secretion that gave out an intolerable fetor. After syringing with an alkaline solution, this secretion could be largely removed, revealing posteriorly a good deal of dead bone. Of this I extracted 4 pieces without much difficulty, as they lay quite loosely attached. They were remains of the vertical part of the right palate bone and of the palate processes of both the palate and the superior maxillary bones. All these pieces were black in color and much eroded; evidently they had been necrosed for a long time. At the next visit I removed the vertical part of the left palate bone. The removal of these bones did not disturb the integrity of the neighboring parts, since the process of repair evidently had kept pace with the destructive process; nor was there any perforation of the palate or evidence of cicatrization in the mouth or pharynx. Mr. V. stated that he began to suffer from "nasal catarrh" 15 years ago, and that after 6 years bits of bone began to come out when blowing the nose. He had to give up business on account of fetid breath. At the time of my examination he presented a dissipated appearance, though apparently in fairly robust general condition. There was a pustular eruption on the face, especially on the forehead. After the removal of the necrosed bone and under the use of antiseptic washes, followed by application of vaseline on a swab, the fetor rapidly disappeared. At later visits it was found that all the septum was gone except a thickened bit of the anterior part of the vomer attached to the palate, and its posterior border of mucous membrane considerably thickened passing from the body of the sphenoid to the palate. By posterior rhinoscopy and palpation the vault of the pharynx was found to be intact; also, it was plainly seen that the anterior part of the body of the sphenoid was unhurt. The eye affection, then, could not be referred to extension of necrosis. The man assured me that he never had had any eye trouble before, nor headaches, but such as might be explained by a disordered stomach.

Through the kindness of Dr. Wilson, I am able to present the following data: Three weeks previous to the patient's first visit, December 11th., he noticed the sight of the right eye grow dim, "as though something were coming over the eye." In 6 or 7 days the eye became completely blind. Meanwhile the left eye fell into the same condi-

2. Philadelphia Med. Journal, October 27, 1900.

3. Hamilton Text-book of Pathology, 1889, VI. I, p. 44.

tion and by December 7th. it, also, became completely blind. December 11th. no vision in either eye. During the last 4 days he had had at different times three distinct flashes of light. For some days he had had continued pain in the region of the right temple, "a jerking headache." He was at once put on potassium iodide and the protiodide of mercury. December 16th. Is now taking 20 grains of potassium iodide 3 times daily and 1/3 gr. of the protiodide twice. Headache was much better by the 15th. and is now gone. Has had no more flashes of light. Thinks he catches some glimpses of light. Appetite has been good all along. December 18th. With left eye distinguishes between light and shade. December 20th. With left eye counts fingers held against the light. He can get about the house alone. December 21st. Sight of left eye improving; with the right eye he can distinguish between light and shade. December 23. Came to clinic alone. December 26th. Reads large print with left eye. January 2nd., 1902. Reads large type readily with left eye; with right can not make out the letters, but sees large objects. Has been taking the potassium iodide up to 3iss daily, with protiodide. The mucous membrane of the nose is well healed; no ulcerations, no fetor. He continues the alkaline, antiseptic wash and vaseline.

April 14. Returns from a visit to the country. Looks very well. Eyes same as on January 2d. He dropped his medicine soon after January 2d. on account of cost, and has taken none since. Has kept up the nasal treatment only. June 5th. Condition of eyes and nose the same as at last visit. At the onset of the treatment, Dr. Wilson found some atrophy of the discs but no other intra-ocular lesion, with marked diminution of the field of vision and power of central vision. These conditions remain the same. The right disc exhibits no material difference from the left. There was at no time any involvement of other cranial nerves beyond what the headache in the right temporal region might indicate.

Early Reasoning in Children.—Exact and minute observations made upon their 3 children, now aged 7, 5 and 3, by M. C. Gale (*Journal of Childhood and Adolescence*, July, 1902) show the presence of all kinds of reasoning, covering the whole range of the child's intellectual, esthetical and ethical life. A child's first reasoning shows associations by contiguity in time or place. These must be experienced several times before the presence of the first member revives the memory of the second, so that the child expects the second to follow. These **associations of contiguity** are the sole reasoning method of the first 3 months and are characteristic of the first year. They are also the type of reasoning in the lower animals. The number of repetitions necessary grows rapidly less until, in the second year, a single association often suffices to give the reasoning expectation. The second kind of reasoning is **association by similarity**; in which, for a member of an acquired contiguity association, a similar member is substituted. This is characteristic of the second year. In a few cases children test these associations, gained through contiguity or similarity, by the inductive methods of difference, concomitant variations and residues. Reasoning, therefore, is the use of a new association acquired by experience, as opposed to an heredity association of instinct. Thus the knowledge and use of cases of causation is a process of sifting out the associations which are most invariable and unconditional. [M. O.]

Erosive Circinate Balanoposthitis in the Female.—Balanitic processes analogous to those observed in the male have been noted about the clitoris. The common form of the affection is erosive circinate balanoposthitis, which, while it produces no symptoms, shows smegma and purulent secretion in the preputial fold, with erosive, circinate subpreputial lesions. The pus contains various micro-organisms. Four case-histories are given in full. The absence of subjective symptoms is noticeable. It is a common condition and should always be sought for; as it may produce vulvovaginitis and thus cause masculine infection. The treatment of the condition is cleanliness. Many details are given. (*La Médecine Moderne*, July 16, 1902.) [M. O.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending September 13, 1902:

SMALLPOX—United States.			C.	D.
CALIFORNIA:	San Francisco.	Aug. 18-31.	18	13
COLORADO:	Denver.	Aug. 23-30.	4	
MASSACHUSETTS:	Boston.	Aug. 30-Sept. 6.	8	2
	Cambridge.	Aug. 30-Sept. 6.	1	
	Quincy.	Aug. 30-Sept. 6.	1	
MICHIGAN:	Ludington.	Aug. 23-30.	2	
MINNESOTA:	Minneapolis.	July 5-26.	4	
	Minneapolis.	Aug. 3-16.	2	
MISSOURI:	St. Louis.	Sept. 1-8.	1	
MONTANA:	Butte.	Aug. 31-Sept. 7.	1	
NEBRASKA:	Omaha.	Aug. 31-Sept. 6.	3	
NEW HAMPSHIRE:	Manchester.	Aug. 31-Sept. 6.	2	
NEW JERSEY:	Camden.	Aug. 30-Sept. 6.	2	2
	Hudson County, Jersey City included..	Aug. 24-Sept. 7.	3	
	Newark.	Aug. 30-Sept. 6.	5	2
	Plainfield.	Aug. 30-Sept. 7.	1	
NEW YORK:	New York.	Aug. 30-Sept. 6.	12	
OHIO:	Ashtabula.	Aug. 29-Sept. 5.	1	
	Cincinnati.	Aug. 30-Sept. 6.	84	13
	Cleveland.	Aug. 30-Sept. 6.	1	
	Dayton.	Aug. 30-Sept. 6.	1	
	Youngstown.	Aug. 23-30.	1	
OREGON:	Portland.	Aug. 1-31.	1	
PENNSYLVANIA:	Butler.	Aug. 14-21.	4	
	1 case imported			
	Johnstown.	Aug. 30-Sept. 6.	7	1
	McKeesport.	Aug. 31-Sept. 6.	3	
	Philadelphia.	Aug. 30-Sept. 6.	2	1
	Pittsburg.	Aug. 30-Sept. 6.	19	
SOUTH DAKOTA:	Sioux Falls.	Aug. 30-Sept. 6.	1	
TENNESSEE:	Memphis.	Aug. 30-Sept. 6.	1	
UTAH:	Ogden.	Aug. 1-31.	6	
	Salt Lake City.	Aug. 23-Sept. 6.	3	

SMALLPOX—Foreign.				
AUSTRIA:	Prague.	Aug. 9-23.	1	
BRAZIL:	Pernambuco.	July 24-31.		11
BELGIUM:	Brussels.	Aug. 16-23.	1	
GIBRALTAR:		Aug. 18-24.	1	
GREAT BRITAIN:	Dublin.	Aug. 23.	1	
	Liverpool.	Aug. 9-23.	17	3
	London.	Aug. 16-23.	18	3
GREECE:	Athens.	Aug. 16-23.		1
INDIA:	Bombay.	Aug. 4-12.		6
	Calcutta.	Aug. 2-9.		1
ITALY:	Naples.	Aug. 9-23.	7	1
	Palermo.	Aug. 16-23.	3	2
RUSSIA:	Moscow.	Aug. 9-16.	6	1
	St. Petersburg.	Aug. 9-16.		2

STRAITS SETTLEMENTS:	Singapore.	July 12-26.		4
VENEZUELA:	Valencia.	Aug. 25, Present.		

YELLOW FEVER.				
COLOMBIA:	Panama.	Aug. 25-Sept. 1.	5	
COSTA RICA:	Port Limon.	Aug. 21-28.	1	
CUBA:	Havana.	Sept. 1, 1 case from S. S. Monterey, from Vera Cruz.		
MEXICO:	Coatzacoalcas.	Aug. 23-30.	4	
	Progreso.	Aug. 16-23.	1	1
	Vera Cruz.	Aug. 19-25.	22	12
VENEZUELA:	Valencia.	Aug. 25, Present.		

CHOLERA—Insular.				
PHILIPPINE ISLANDS:	Manila.	Jne 22-Jly 12.	820	604
	Provinces.	Jne 22-Jly 12.	5343	4126

CHOLERA—Foreign.				
CHINA:	Amoy.	Aug. 2-19, 15 cases estimated.		
	Hongkong.	Aug. 22-29.	8	7
EGYPT:	Cairo.	Aug. 9-16.		1
INDIA:	Calcutta.	Aug. 2-19.		18
	Karachi.	Aug. 3-10.	8	8
JAPAN:	Tokyo.	July 27-Aug. 2.	2	
	Okaqama.	July 29-Aug. 3.	224	
RUSSIA:	Amur District.	July 16-22.	123	68
	Charbin.	June 14-20.	112	44
	Inkow.	July 14-20.		175
	Girin.	July 6-17.	128	106
	Mukden.	July 12-15.	87	73
	Manchuria.	To July 19.	54	24
	Vladivostock.	Aug. 14.	4	
	Zizikar.	July 11-13.		57

PLAGUE—United States.				
CALIFORNIA:	San Francisco.	Aug. 20-31.	6	6

PLAGUE—Foreign.				
BRAZIL:	Pernambuco.	July 9-23.		4
EGYPT:	Cairo.	Aug. 9-16.	2	1
INDIA:	Bombay.	Aug. 5-12.		27
	Calcutta.	Aug. 7-14.		15
	Karachi.	Aug. 3-10.	3	3
RUSSIA:	Odessa.	To Aug. 22.	9	1

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. Reprints (250) of Original Articles will be furnished gratis to Authors making the request.

The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8

VOL. X. NO. 13

SEPTEMBER 27, 1902

\$5.00 PER ANNUM

An Address Out of the Ordinary.—Dr. Osler can always be relied upon to be interesting. His writings always have a distinct literary quality that is unmistakably the mark of culture. In this, the most utilitarian age of medicine, he does not neglect the graces of literature while he cultivates the utilities of science. The time has been when the physician, from the very nature of his calling, was a man of letters. In that old Greek environment, which he knows and loves, science was the handmaid of letters and philosophy, and Dr. Osler represents that tradition in a most wholesome and inspiring manner among us to-day.

In his address, which we have the pleasure of presenting in this number, Dr. Osler is the spokesman for the catholicity of medical science. When John Wesley said "The world is my parish," he voiced the sentiment that enlivens this felicitous essay. We doctors have our limitations like other men. This life is an immense and intense Darwinian struggle in which, say what we will, the nations and the individuals are only too apt to get at loggerheads with one another. Even the man whose horizon is wide enough for him to cry "The Empire, and Little Pedlington!" is in constant danger of remaining a Little Pedlington provincial. It is to rescue us from this Chauvinism that Dr. Osler writes in his cosmopolitan and optimistic way.

This address is quite out of the rut of ordinary medical literature. It is not technical; it is humanistic. We congratulate the author and the reader alike. To paraphrase slightly the language which Dr. Johnson applied to Goldsmith, we may say that there are few subjects in medical literature that Dr. Osler has not touched, and there are no subjects that he has touched that he has adorned more than this essay.

Surgical Treatment of Pulmonary Tuberculosis.

—The admirable paper by Dr. DeForest Willard, which appeared in the latest issue of the *Journal of the American Medical Association*, presents the mature views of this well-known surgeon upon an important subject. Dr. Willard confines himself to a

mere mention of the various operations which have been performed for pulmonary tuberculosis, but discusses at length incision and drainage of the cavity—pneumonotomy, and excision of the diseased area—pneumonectomy.

The first of these procedures was performed as far back as 1643 by Baglivi. The technique of both operations is fully described by Dr. Willard, who has included in his paper the condensed opinions of a large number of surgeons as to the advisability of surgical intervention. Dr. Willard's paper summarizes the results of a large number of experiments upon animals which were performed under his direction. In reference to these experiments Willard states that they were undertaken in an attempt to discover the possibility of the successful drainage of tuberculous cavities in the lung. He found, however, that in artificially induced tuberculosis a general infiltration usually resulted, and the time required to produce cavities was so long that the experiments were impracticable. He was obliged to content himself, therefore, with an investigation of the susceptibility of the animal to operative intervention, together with improvement in the technique of promoting adhesion of the pleural surfaces before the incision was made.

Willard's conclusions as to the advisability of operation in the human subject, based as they are upon an exhaustive review of the literature, and his experimental studies, are both pertinent and valuable. He believes that, with improvement in the technique, pneumonotomy would be especially helpful in the early period of apical cavity formation. At this stage, however, it is most difficult to secure the consent of the patient, and many recoveries follow medical and hygienic treatment. In advanced cases, in which the cavities are usually multiple and there is a mixed infection present, while operation cannot cure, it may be employed as a palliative measure. He advises incision and drainage in abscess of the lower lobes following pneumonia or pleurisy, whether tuberculous or not. Pneumonectomy, according to this authority, in the present state of our knowledge is not an advisable operation.

Willard takes a hopeful view of the future of surgical treatment of this disease, and believes that we shall be enabled ultimately to eradicate tuberculous foci in the lungs as we now eradicate tuberculosis in joints and other tissues. The most important step in the improvement of the technique will be an efficient and certain method of producing strong adhesions between the two layers of the pleura at the site of the disease.

Many will doubtless disagree with Dr. Willard in his opinion as to the general utility in the future of the surgical treatment of pulmonary tuberculosis. The questions to which this problem gives rise are far too numerous to be considered here, but we believe that it is not too much to say that at the present writing the prospect for the cure of any and every case of tuberculosis would seem to be greater from the employment of open-air and dietetic measures.

The Plague in San Francisco.—During the month of August there was a decided recrudescence of plague in San Francisco. In the week ending on the 23d. of the month not less than five cases were reported. So apprehensive had Assistant Surgeon White, of the Marine-Hospital Service, become on the subject, that he addressed a special letter to the Board of Health, calling attention to the situation. One of the cases was of the pneumonic type, and all of them were very virulent. The diagnosis was not a matter of the slightest doubt, as the cases were studied with care. Surgeon White's recommendations are for increased sanitary vigilance and care, and the earnest tone of his letter proves only too clearly his sense of anxiety and responsibility.

The situation in San Francisco has developed a still more acute political aspect from the fact that Governor Gage failed of a renomination, and a well-known physician, Dr. George C. Pardee, has been nominated in his stead. We reprint elsewhere a clipping from the *Occidental Medical Times*, giving an estimate of Dr. Pardee, and also throwing much light on this remarkable medico-political campaign. It seems inevitable that, with plague on the increase and a physician as a candidate for governor, the disease must figure as an issue in the election.

The country at large, and the medical profession in particular, will watch this campaign with extraordinary interest. Plague will not down at the behest of politicians, and we can only re-echo the sentiment of the *Occidental Medical Times* that California in the coming election will do something to redeem itself in the eyes of the country and of the world.

The Cause of Summer Diarrhea.—In 1900, F. J. Waldo delivered the Milroy Lectures on summer

diarrhea. In the course of one of these lectures (*Lancet*, May 26, 1900) he said that summer diarrhea is caused by micro-organisms that are to be found in the horse-dung that is daily deposited in vast quantities upon our highways. He quoted from the writings of Longstaff, Ballard, Newsholme, Pakes and others in support of his theory. Horse-dung is rich in *bacillus coli communis* and *bacillus enteritidis sporogenes*, which, being deposited on the surface of the soil and quickly dried, may be blown by the wind into various articles of food, notably milk, and thence find their way into the digestive tracts of adults as well as children. Chapin (*Archives of Pediatrics*, July, 1902) shows that in 1901 there were 6,115 deaths from summer diarrhea in Greater New York and its suburbs, nearly twice as many as occurred in 1900. During the summer of 1901 the streets of the Borough of Manhattan were torn up from one end to the other for the purpose of building the subway. He believes that the great increase in the number of deaths from summer diarrhea cannot be attributed entirely to the milk-supply or to the heat; but that putrefactive bacteria are disseminated by dust and, gaining access to the digestive tract, cause the disease in question.

The logical conclusion to be drawn, provided these statements can be demonstrated, is that it is incumbent upon the government of every city to see that the dust is kept well laid during the summer months. This does not mean that the present admirable control of the milk-supply should be abandoned, but that the additional precaution should be taken of getting rid of organic dust, which is not only a nuisance from the viewpoint of comfort, but may also be shown to be actively deleterious from the outlook of the hygienist.

Is it a Church, a Hospital, or a Trade?—What is the status of Christian Science in the eyes of the law? Is it a religion? Is it a practice of medicine? Or is it a business? Its devotees might possibly claim that it is all three. The time may even come when they may claim that Christian Science is a political party.

According to Judge Arnold, of the Philadelphia courts, Christian Science is an association for gain. He therefore refused to grant it a charter, holding that he had no authority to grant such a charter to a body which was engaged in a business for profit. From this point of view the Christian Scientists are engaged in a money-making enterprise, and the court does not recognize them as merely constituting a church. As practitioners of medicine, they are breakers of the law. As tradesmen, they are not a mere church. As religionists, they cannot also

be practitioners of medicine and tradesmen, too. The multiformity of their enterprise seems in this instance to have brought them into conflict with the law. While their doctrines are unintelligible, their practices are quite easily understood; and we are glad that the court, in this instance, has seen the distinction. The law is not concerned with doctrine, but with practice.

The Right of Privacy.—*The Philadelphia Press* has recently called attention to a decision of an English law court that is of great importance to physicians. According to this English decision (which would probably hold good in most American courts), a regular physician has no remedy if he prescribes a proprietary medicine, and the owner of the medicine publishes that fact in his advertisement. It is just as well for physicians to understand this matter. The market is flooded with proprietary drugs, and not a few of these are of distinct value. The custom of prescribing them is quite common, and is increasing.

The right of privacy in this, as in many other matters, is in a densely nebulous state. Mr. Elbridge L. Adams has recently discussed the subject in the *North American Review*. He was counsel for a young woman who tried in vain to prevent a milliner from using her photograph on an advertisement. He was unable, in other words, to protect a reputable woman from having her picture vulgarized in this unseemly manner. Such is the law in New York, and such it is in most States of the Union.

According to Mr. Adams, the family of Mrs. Schuyler, a woman well known for her benevolence, was unable to prevent the exhibition of her statue at the Columbian Exposition as a sort of ideal Woman Philanthropist. A widow has failed to have the Supreme Court of Michigan enjoin a cigar-manufacturer from using the photograph of her deceased husband on a brand of cigars. We do not understand upon what principle of equity such law is founded. It seems to us to tolerate and to encourage an infringement of private rights.

The President's Case.—It might have been better if President Roosevelt's advisers had secured absolute rest for him immediately after the Pittsfield accident, instead of waiting for several weeks to elapse. The President has been kept constantly on the move since that tragedy; and it must have been a source of amazement to many physicians that such things should be. He was not even allowed time to heal up his injured head before he was started on a western trip, and that first trip was hardly completed before a second was begun.

The President probably does not take kindly to

a sick-room life and the control of his doctors. Nevertheless, the most robust constitution may not be built to pass with impunity through a disaster such as that which occurred at Pittsfield. A man so near death as the President was on that occasion, receives a shock the consequences of which are not always measurable except at a long distance of time. A trolley smash-up which kills one man and almost kills another out of a small party of six in a carriage, is not to be lightly ignored.

If physicians have learned anything about such accidents, it is to guard against their *remote* effects. They often leave a trail of disasters behind them that is not anticipated at the time. The President of the United States was entitled to a little rest treatment. He should have been respectfully advised to submit to it whether he wanted to or not.

A Good Word for the "Water-Cure."—It seems that General Jacob H. Smith, who has been retired from the army by President Roosevelt for administering the "water-cure" to the natives in the Philippine Islands, is regarded in Manila as a martyr. In this country he has been severely criticised, and has even been referred to as "hell-roaring Jake," but the *Manila American* stands up for him and, also, for the "water-cure." There is evidently a difference of opinion as to the merits of this system of hydrotherapeutics.

The *Manila American* is responsible for the following story: Some of the insurgents had a bad fever, and were given leave of absence. As the sick squad marched away, they were captured by some Americans, who, seeing the condition of the sufferers, promptly administered the "water-cure," with the result that in three days all the men were back in the ranks in fighting condition, their fever being only a memory. We are unable to determine whether there is any ill attempt at humor in this clinical report, but the treatment suggests a similarity to the Brand method. As the *Manila American* devotes much space to discussing and defending this practice, we must give it credit for sincerity, but it seems to confuse medical treatment and army discipline. We cannot approve of an indiscriminate hydrotherapy in the hands of general officers, and we see no warrant for degrading an approved system of medical treatment by applying it as a cure for the moral defects of one's enemies.

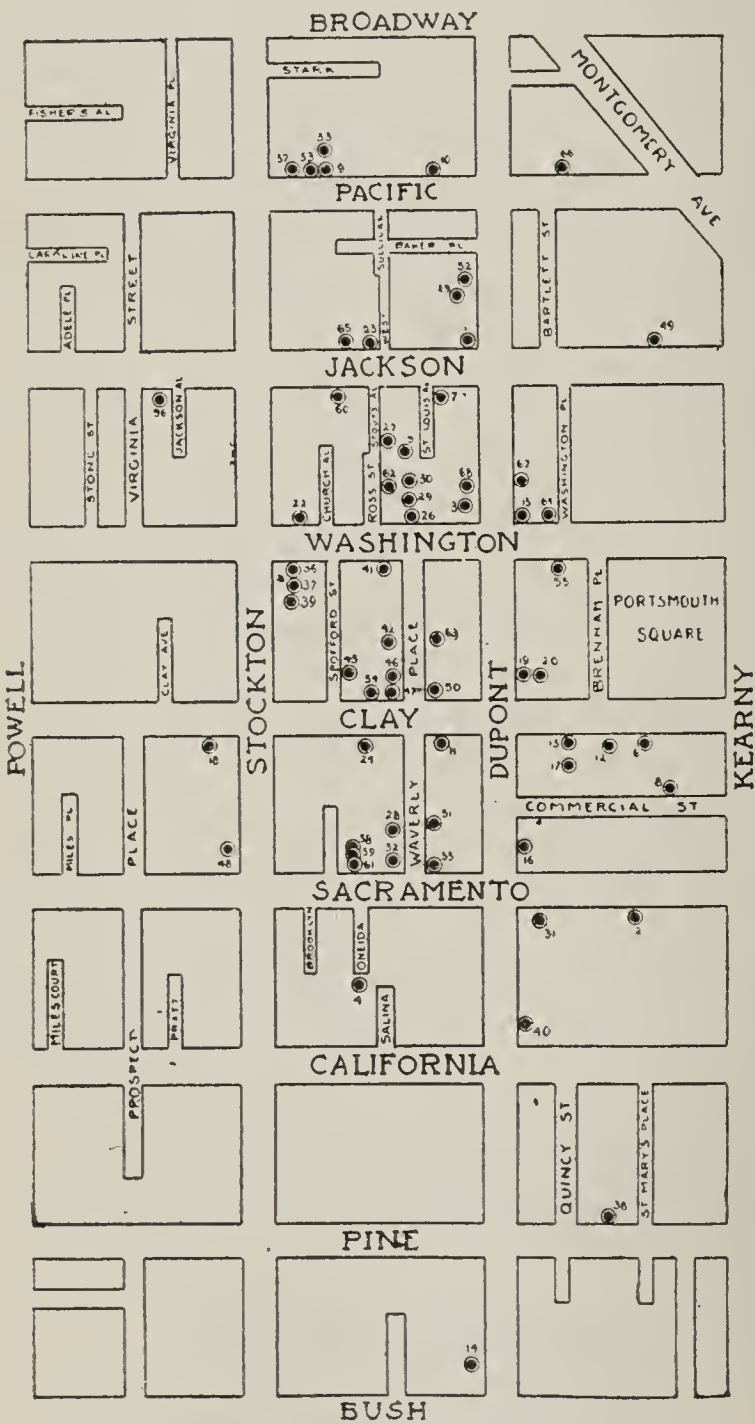
Current Comment.

THE NOMINATION OF DR. PARDEE.

The nomination of George C. Pardee as a candidate for Governor of the State of California is a matter worthy of consideration by the medical profession, especially at

this time. Dr. Pardee brings to the position a record in private, professional and public life that is beyond reproach. He is a superior man in every respect; as a physician and specialist he stands among the very first of our State, and as a politician he ranks far above the majority and among the purest and the best of his own or any other party. It is admitted by all that the man is most fit for the office, and if he is defeated it will be at the hands of the disgraceful machine element of this State. To the medical men of this commonwealth his election would mean a partial restoration of their position in the world of science and medicine. The notoriously false administration of affairs under the present régime would be done away with. * * * * * The history of the past would be rewritten, and truth would at last prevail. When it is recalled what effort has been put forth by political and financial interests to keep up a lie, published and spread the world over by the Chief Executive of this State, it is not impossible that the interests involved will consider it necessary to have more pliable material at the helm. Many a man has gone down to defeat on a similar basis. George C. Pardee can only consider the medico-political questions of this State in one light.—*Occidental Medical Times.*

PLAGUE IN SAN FRANCISCO.



A NON-FELICITOUS LITERARY PRODUCTION.
One of the most familiar features of the traveller from the States who visits this obsolescent old country is the

quiet peremptoriness with which he claims everything that strikes him as good as "Amurrican." It may be cheerfully admitted that we do in fact owe many inventions, happy and otherwise, to America. But we really must protest against the assumption which is calmly made by writers in American medical journals, that we owe them the knowledge either of appendicitis or its treatment. It might almost be gathered that some of them believe that the appendix itself is an American discovery. Among James Russell Lowell's less felicitous literary productions is an essay "On a Certain Condescension in Foreigners." Recent events would make one on a certain condescension in American physicians and surgeons towards foreigners singularly appropriate. They have been laying down the law on the treatment of appendicitis to the surgical world in general and to English surgeons in particular with an oracular assurance which shows that the sense of humor which they boast of as a national characteristic remains, in their individual cases, in a state of latency.—*The Practitioner.*

SENATOR HOAR'S JEST.

Senator Hoar received word the other day that a friend who had been supposed to have appendicitis was suffering not from that ailment, but from acute indigestion. "That is good news," said the Senator. "I rejoice that the trouble lies in the table of contents rather than in the appendix."—*Chicago Journal.*

Correspondence.

MALARIA MISTAKEN FOR THERMIC FEVER.

By CLIFFORD B. FARR, M. D., of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:
The article in your issue of August 16th., by Drs. Levi and Asher, describing cases of malaria mistaken for thermic fever, recalls to my mind very similar cases seen by Dr. R. G. Paynter, now of Georgetown, Del., and myself during the summer of 1900, while on the service of Dr. E. J. Morris, at the Episcopal Hospital. On August 10th., H. B., aged 39, male, was brought to the "heat tent" by the patrol as a case of sunstroke. His temperature was found to be 107°, so he was immediately placed in a cold bath, but without the least effect, as his temperature did not drop till evening, when it came down of its own accord. Examination now showed enlarged, palpable spleen and labial herpes, while blood smears exhibited two hoods of malarial organisms. The patient's mind was now clear and he gave a distinct history of quotidian paroxysms, confirmed by a severe chill from which he suffered the following day. A similar case was brought by the police one week later. This man, while at work, fell to the floor and was admitted in a semiconscious condition. The temperature was 105°, respiration rapid, skin hot and dry. The spleen was enlarged on percussion, but was not palpable. The man was unable to give any history, but remembering the previous case, a careful blood examination was made, which showed the presence of numerous malarial parasites of the tertian type. During the same summer several other cases, which had deceived the police at least, were detected by the blood examination which, after our first experience, we made use of in all doubtful cases.

THE FIRST EGYPTIAN MEDICAL CONGRESS.

By W. W. KEEN, M. D., of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:
Through a much belated letter, due to irregular and wandering mail, I have just learned that, in spite of my declination, the Executive Committee of the First Egyptian Medical Congress have notified me that they have decided upon retaining my name as Honorary President of the Congress. I feel that I owe the honor more to a desire on their part to recognize the good work of the American Medical Profession than to any personal reason. It is an additional

recognition of the new position which America holds as a world power.

I am, therefore, anxious that the profession shall respond to this recognition by contributing some papers to be read at the Congress, or, if possible, that a number of our representative men shall attend its sessions. It is to open on December 19, 1902.

In view of our new possessions in the Philippines, Porto Rico, etc., and our relations to Cuba, American physicians and surgeons have a new and especial interest in tropical diseases, which will be naturally among the chief subjects discussed at the Congress.

As General Kitchener is to open the new reservoir at Assowan (the First Cataract), the greatest of modern engineering feats, and also the Gordon Memorial College, at Khartoom, about December 1st., there will be an exceptionally fine opportunity for any person attending the Congress to attend these attractive functions and afterward attend the Congress.

Messrs. Thos. Cook & Son can give all desired information as to dates, provide for transportation, hotels, etc.

SUBPHRENIC ABSCESS DUE TO A RUPTURED GALL-BLADDER.

By H. E. RANDALL, M. D., of Lapeer, Michigan.

To the Editor of the Philadelphia Medical Journal:

Rupture of the gall-bladder, followed by subphrenic abscess, is a rare surgical condition. S. J., aged 64, had suffered for several years with obscure stomach trouble. He had pain at the pit of the stomach and vomiting, but no pain or sensitiveness on pressure over the region of the gall-bladder. No jaundice was present in any of the attacks. There were slight fever and slightly accelerated pulse. During the present year the patient has had 2 attacks that were diagnosed by Dr. D. Burly, of Almont, as instances of gall-stone colic. Perhaps the obscure stomach attacks were of this nature.

Examination.—The upper dullness of the liver was 3 inches higher than normal. Extending from the costal cartilage and on the left side diagonally to almost the top of the right ilium, was the lower limit of liver dullness. A vertical incision was made through the right rectus muscle, the lower point of incision being opposite the navel. Pus and bile poured out as soon as the peritoneum was incised. The abscess cavity was well walled off below, and extended up and over the liver. Drainage was instituted, and the patient did well for 2 weeks, when symptoms indicated that pockets of pus were forming. An exploring needle was used in the pleura and also in different directions in the liver, but no pus was found. The gall-bladder was opened and a rent was found on the upper side. A probe was passed down into the duodenum. In fact, bile could be detected most of the time in the passages from the bowels. The external wound was healing and of a healthy color, but the patient gradually succumbed to a slow sepsis 4 weeks after the first operation. Only 2 or 3 cases of this kind have been diagnosed before operation, and only an abnormal and extensive dullness showed us we had something unusual to deal with. There were no symptoms of peritonitis at any time. The chills and fever which urged us to the second operation may have been due to disturbed liver function. There were no chills after the gall-bladder was opened at the second operation. No autopsy was held.

Reviews.

Morphinism and Narcomania from Opium, Cocain, Ether, Chloral, Chloroform and other Narcotic Drugs; also the Etiology, Treatment and Medicolegal Relations. By T. D. Crothers, M. D., Superintendent of Walnut Lodge Hospital, Conn.; Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc. 12mo. of 351 pages. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, \$2.00 net.

Dr. Crothers has written so extensively on drug-addiction that his views are already quite widely known. In this

book he has presented the subject from his own standpoint in a concise and graphic way that will be sure to attract readers. The book has the impress of the author's wide experience and of his own individuality. These elements always make a readable work; and of this work it can truly be said that it is readable and instructive. The author's views about the wide prevalence of opium-addiction (especially among members of the medical profession) have sometimes been combated; and his opinions on various aspects of the whole subject, both physiological and moral, are by some persons considered extreme; but Dr. Crothers has at least the merit of looking at this evil from the standpoint of his own large experience and of presenting it in a lively and persuasive way. We believe that the book has other merits, too, of a scientific kind; and on ground which is yet debatable, it at least may serve a good purpose in calling renewed attention to the necessity for earnest work in systematizing our knowledge and perfecting our treatment in this important field of observation and practice. Certainly no one will dispute the claim that drug-addiction is an ever-present and an ever-increasing evil among us, and every one will welcome any work which, like that of Dr. Crothers, seeks to mitigate this evil.

[J. H. L.]

The Purin Bodies in Food Stuffs, Their Estimation, Action and Significance. I. Walker Hall, M.D., 8 vo., paper. 108 pages. Manchester, Sherratt & Hughes. 2 shillings.

The author of this work is assistant lecturer and demonstrator of Pathology at Owens College, and undertook the researches principally with a view of discovering some means by which the early pathological changes in certain metabolic diseases could be detected. He has made estimations of the purin bodies in the more common food-stuffs, and studied their specific effects when introduced subcutaneously and by the mouth. The text embodies a short account of the chemistry of the purins. The term "purin" has been applied by E. Fisher to a carbon-nitrogen nucleus occurring in many products of tissue-changes, among the more important of which are uric acid, xanthin, hypoxanthin, caffeine, theobromine and guanin. Purin bodies are widely distributed, existing in meats and meat-extracts, glandular organs and in vegetables. They occur, as is well known, as constant ingredients of urine. The data given in the work before us include a large amount of detailed information, most of which is so highly technical in character as to be unsuited for discussion except by experts. The author made studies of processes of separation and estimation and gives in detail the methods adopted. The analytic work in this department of chemistry is tedious and difficult and great credit is due to those who give the time to it. A large accumulation of data will be necessary before it will be safe to draw inferences for diagnosis and treatment. There is a good bibliography, but no index.

[H. L.]

Transactions of the Sixty-ninth Annual Session of the Medical Society of the State of Tennessee, Memphis, 1902.

The southern portion of our country has ever contributed able members to the medical profession. Consequently the Transactions of the Southern Associations generally contain much that is of interest. The present volume is no exception to this rule and especially would we mention the interesting papers of Ricketts, of Cincinnati, Krauss, of Memphis, Runyon, of Clarkesville, and Haggard, of Nashville. These papers, however, do not by any means represent all that is valuable in the Transactions. An examination of the contents of the book shows a fair distribution of topics that cover the fields of surgery and general medicine.

[W. A. N. D.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Pennsylvania State Medical Society.—The fifty-second annual meeting was held in Allentown, September 16 to 18, under the presidency of Dr. F. H. Ball, of Lock Haven. At the opening exercises the Mayor of Allentown delivered an address of welcome, followed by Dr. E. H. Dickenshied, president of the Lehigh County Medical Society. Over 300 physicians attended the meeting. The secretary's report showed 44 affiliated county societies, with a total membership of 3518. The following officers were elected for the ensuing year: President, Dr. W. M. Welch, Philadelphia; vice-presidents, Drs. H. H. Herbst, Allentown, C. F. Bell, Lycoming, G. W. McNeal, Allegheny, and S. P. Heilman, Lebanon; secretary, Dr. C. L. Stevens, Athens, and treasurer, Dr. N. O. Wagoner, Cambria. Numerous papers were read and discussed, and many entertainments, trolley rides, drives and receptions, including a visit to St. Luke's Hospital, South Bethlehem, were given in honor of the visiting physicians.

The Health of Philadelphia.—For the week ending September 20, but 336 deaths were reported, an exceedingly low number. There were no deaths from smallpox or scarlet fever, though 12 people died from typhoid fever and 6 from diphtheria. The following contagious diseases were reported: Smallpox, 4 cases; diphtheria, 36; scarlet fever, 54; typhoid fever, 125 cases.

A Bequest.—The Jewish Hospital, which has been erecting a hospital for private patients, has received an additional gift of \$20,000 from Mr. Meyer Guggenheim of New York. As he had already given \$60,000 for this purpose, a 4-story building will be built, to cost \$80,000. It is expected that this will be finished by January, 1903.

Presbyterian Hospital.—By the will of the late Mr. James Carlisle, over \$4000 were left to the Presbyterian Hospital. —The late Jacob Kritser left \$5000 to the Presbyterian Hospital for the endowment of a free bed in memory of his wife.

NEW ENGLAND.

Smallpox in Cambridge, Mass., During 1901.—The health board has recently made its report upon the epidemic of smallpox, which broke out in Cambridge for the first time in many years, October 25, 1901. Up to September 1, 1902, 180 cases of smallpox occurred, 103 of these patients never having been vaccinated. It should be noted that among the university community, including the students, professors and their families and employes, even including the colored waiters of Memorial Hall, no single case of smallpox appeared. They were all vaccinated at the beginning of the epidemic. Of not less than 300 cases suspected of having smallpox and examined on that account, not one patient was sent to the hospital who did not have smallpox at the time he was sent, and not one case was refused admission, which afterward developed the disease. Vaccination was general and compulsory, and all cases of smallpox were strictly quarantined. Out of a total population of 95,000 not less than 65,000, and probably a much larger number, were vaccinated between October 1, 1901, and August 1, 1902. Of the total 180 patients, 71 had been vaccinated more than 5 years before and 6 had been vaccinated within 5 years. Of the 33 patients who died, 27 had never been vaccinated. One case remained in the hospital September 1, 1902.

Thomas Morgan Rotch, Jr., Memorial Hospital for Infants.—In memory of the eldest son of Dr. T. M. Rotch, professor of pediatrics in the Harvard Medical School, whose death occurred a few months ago, one year after being graduated from Harvard College, a fund is being raised to erect a hospital for infants, to be called the Thomas Morgan Rotch, Jr., Memorial Hospital for Infants. Already \$70,000 have been subscribed and the building is to be erected near the new Harvard Medical School.

Harvard Medical School.—Dr. John Homans, for 21 years lecturer on surgery, has recently resigned.—The five children of the late George Higginson have together given

\$100,000 for establishing the George Higginson Professorship of Physiology.

Fire in the New Jordan Hospital.—The Jordan Hospital, which was just being completed at Plymouth, Mass., caught fire early in the morning of September 13 and was totally destroyed, only the walls remaining. The loss will approximate \$20,000. Two days later, the ruins were again found in flames, this time, however, at the other end of the building. It is not known whether the later fire was due to freshening up of embers from the former fire, or to the work of an incendiary. The cause of the first fire remains unknown. The building will at once be rebuilt.

WESTERN STATES.

The President's Illness.—Early in the afternoon of September 23, President Roosevelt was taken to St. Vincent's Hospital, Indianapolis, where an operation was performed on his left leg by Dr. George H. Oliver, of Indianapolis. Three days before the President had complained to his physicians, Dr. George A. Lung and Dr. J. J. Richardson, of pain in his left leg just above the ankle. The operation showed a circumscribed collection of serum, about 2 ounces in quantity, in the middle third of the left anterior tibial region, a result of the traumatism received in the trolley accident at Pittsfield, Mass., September 3 last. The operation was performed under local anesthesia and the President was removed to his train for Washington 4 hours after entering the hospital. While not serious, the operation makes from 10 to 14 days rest imperative for the President. Two other Indianapolis physicians, Dr. George J. Cook and Dr. Henry Jameson, were also called in consultation before the operation.

Plague in San Francisco.—During the month of August, 9 cases of bubonic plague occurred among the Chinese of San Francisco, all of them ending fatally.

Insanity in Detroit, Mich.—Recent investigations by Dr. J. B. Kennedy of the Health Board show that one person becomes insane every other day in the city of Detroit. He found that, during the year 1901, 180 persons were declared insane. Since 1894 the number of insane people in Detroit has increased over 100%. This is far in excess of the increase of population during the same period.

In Honor of Virchow.—The meeting of the St. Louis Medical Society, held September 13, was a memorial to Virchow. Addresses were made by Drs. Summa, Lutz and others in memory of the late Dr. Virchow.

SOUTHERN STATES.

General Forwood Honored.—Brigadier-General William H. Forwood, U. S. A., who was recently retired as surgeon-general, was tendered a banquet, September 19, at the Hotel Raleigh, Washington. Sixty-five gentlemen were present, among whom were General Walter Weyman, U. S. P. H. and M.-H. S., General P. M. Rixey, U. S. N., General G. M. Sternberg, U. S. A., retired, Colonel Girard, Major Davis, Colonel Dewitt, Colonel Tilton, Major Kean, Major Reed, Dr. Edward Ricketts, Dr. I. S. Stone, Health Officer Woodward and other prominent physicians of Washington.

Army Medical Examinations.—These examinations were held last week in Washington and San Francisco. Ten candidates appeared in Washington and almost 40 in San Francisco. There are at present about 50 vacancies in the Army Medical Corps.

The Death-Rate in the South.—Newport News, Va., has the lowest death-rate, 16.8 per thousand. The highest death-rate in the south is reported at Charleston, S. C., 37.5 per thousand.

Medical Society of Virginia.—The thirty-third annual meeting was held at Newport News, September 23 to 25.

MISCELLANY.

Egyptian Medical Congress.—The preliminary program for the first Egyptian Medical Congress, to be held at Cairo December 19 to 23, 1902, has recently appeared. The subjects announced for discussion are: Hepatitis and abscess of the liver, bilharzia hematobia, malaria, filariasis, ankylostoma, cholera, dysentery, leprosy, plague, urinary lithiasis, granular conjunctivitis, anomalies of refraction in schools, and ophthalmia. The congress will be held in 4 sections: Pathology, under the presidency of Dr.

Comanos Pacha; tropical diseases, Dr. Ruffer; surgery, Dr. Milton, and ophthalmology, Dr. Mohamed Bey Eloui.

Infectious Diseases in China.—The plague this year at Canton and Shemeen is more malignant in type than that of former years. At Hong Kong the situation is reported as improving. Up to July 23, 456 cases of bubonic plague with 442 deaths had occurred. Dengue has become widespread among the Europeans in Hong Kong, more than 50% of the foreign population being affected. The cholera in Hong Kong has subsided.

Yellow Fever.—Twenty-four new cases of yellow fever, with 7 deaths, were reported at Vera Cruz, Mexico, during the week ending September 7. The disease has spread to Orizaba, where a great many cases have already been reported. A few cases of the disease have appeared at Guayaquil, Ecuador.

Cholera in Japan.—The present outbreak of cholera has been confined almost totally to Southern Japan. The only extensive outbreak on the main islands has occurred at Okayama, not far from Kobe. The majority of the cases have occurred at Nagasaki and Moji. The island of Formosa has had 2116 cases of cholera, with 1658 deaths, between January 1 and August 18, 1902.

Cholera in the Philippines.—In Manila the number of cases of cholera has been constantly decreasing. There were but 3 deaths from that disease reported September 13. Four deaths from bubonic plague were also reported that day. Six additional cases of cholera, with one death, have developed among the enlisted men on the U. S. transport *Sherman*, in quarantine at Nagasaki, Japan. Up to September 16, it is estimated that 59,759 cases of cholera, with 41,804 deaths, had occurred in the Philippines. Between September 1 and 15, 9 deaths occurred among the troops from cholera.

Cholera in Egypt.—Up to September 13, 23,017 cases with 18,500 deaths occurred throughout Egypt, since the beginning of the outbreak. There has been a steady decrease in the epidemic since September 8. On September 21, 812 cases with 703 deaths were reported.

The Health of the Army.—During 1901 the United States Army has enjoyed better health than during the previous year. The rates of illness and death are greater than the average rate from 1890 to 1899, on account of the war in the Philippines. The admissions to sick report in 1901 constituted 1,791.50 per 1000 of the strength as compared with 2,311.81 in 1900. Deaths from disease constituted 9.58 per 1000 of mean strength as compared with 15.79 in 1900; deaths from injury, 4.36 as compared with 6.95 per 1000 in 1900. In Cuba the death-rate from all causes was 5.29; in the United States, 6.91; in Porto Rico, 7.81, and in the Pacific Islands and China, 17.96 per 1000. Deaths from disease constituted only 3.21 per 1000 in Cuba, 4.68 in the United States and 12.40 in the Pacific Islands and China. There have been only 14 cases of yellow fever, one of which was fatal, all in Cuba. There were 494 cases of typhoid fever, with 78 deaths. Out of 166 cases of insanity reported, 142 were found insane and committed to asylums. Of these, 120 came from the Philippine Islands. A full report of the cholera epidemic in the Philippines follows, in the last report of the Surgeon-General of the Army, for the year ending June 30, 1902. That the number of cases reached 25,000 is considered a conservative estimate.

Philippine Sanatorium for Invalid Civil Officials.—The Philippine Commission has directed the Government of Benguet to provide a sanatorium in one of the mountain towns for the exclusive reception of invalid civil officials, employes and their families. An attendant physician, surgeon and nurses will be assigned to the sanatorium and patients who are able will pay from \$2 to \$4 per day.

Obituary.—Dr. Walter Curry, at Branford, Conn., September 20, aged 67 years.—Dr. Edward K. Perrine, at Philadelphia, Pa., September 18, aged 40 years.—Dr. Erastus D. Williams, at Islesboro, Me., September 15, aged 42 years.—Dr. Charles H. Johnson, at Brooklyn, N. Y., September 18, aged 49 years.—Dr. Abram F. Cox, at Alexandria, Va., September 16, aged 68 years.—Dr. James Cook Burch, at Baltimore, Md., September 21, aged 64 years.—Dr. Clayton M. Daniels, at Buffalo, N. Y., September 6, aged 48 years.—Dr. Ignatius G. Drury, at Knottsville, Ky., September 4, aged 75 years.—Dr. Christian C. Baumgartner, at Elkhart, Ind.,

September 4, aged 60 years.—Dr. George S. Graham, at Burgettstown, Pa., September 10, aged 62 years.—Dr. Hollie P. Robertson, at Almond, N. C., September 6, aged 24 years.—Dr. John J. Schlawig, Jr., at Sioux City, Iowa, September 8, aged 35 years.—Dr. Eugene E. Storck, at Buffalo, N. Y., September 10, aged 47 years.—Dr. Caswell T. Poe, at Grand Island, Neb., September 8, aged 72 years.—Dr. A. N. Becker, at Schaefferstown, Pa., September 22, aged 30 years.

GREAT BRITAIN, ETC.

Candy for Children.—Dr. Fothergill, of London, believes that candy, given to children after meals in reasonable quantity, is of decided benefit, since children need sugar for maintaining animal heat and for easily digesting nourishment. He advises molasses taffy for the prevention phthisis in children of consumptive tendency.

The Birth-rate in England.—Recent vital statistics show a marked decline in the English birth-rate. Since 1881, the percentage of married women under 45 having children has decreased from 27.4 to 20.06. This is most noticeable in the fashionable quarters of London, the statistics for the slums, Stepney, Shadwell and Bethnal Green, having remained stationary. Throughout the rest of England, outside of London, the birth-rate has fallen, since 1881, from 30.3% to 25.8%.

The British Lunacy Report.—The 55th. report of the British Commissioners of Lunacy shows that the total number of certified lunatics in England and Wales on January 1, 1901, was 107,944, an increase of 1333 since January 1, 1900. The Commissioners observe that, although there has been a diminishing rate of increase of lunatics in the last 10 years, previous experience has shown that it is not wise to count upon a continuance of this satisfactory condition. Dr. Wilcox suggests that this diminution might be made continuous if an hereditary tendency to insanity was made a bar to marriage, or if marriage was prohibited to persons with a distinct family-history of alcoholism. After 3 admissions into an asylum, a case should be regarded as one of incurable, recurrent insanity, with one exception, attacks of puerperal insanity.

The Smallest Village in England.—Probably the smallest village in the United Kingdom is Bagley Wood, about 3½ miles from Abingdon. It was formerly the abode of a hermit and has only four inhabitants now.

CONTINENTAL EUROPE.

Dr. Bottini III.—Dr. Enrico Bottini, professor of operative surgery in the University of Pavia, Italy, well known throughout the entire world on account of his method of operation upon the prostate gland, has recently suffered an intracranial hemorrhage, the entire right side of his body being paralyzed. An improvement in his speech has already been noticed and his mind has become clear.

Railway Ambulance Cars in Germany.—The State Railway Administration has decided to maintain ambulance cars at the 77 principal stations of Germany, to insure immediate aid to persons injured in train wrecks. The cars will contain full hospital equipment, including operating tables and beds, calculated particularly to render everything necessary in the direction of first relief. Each car is to be in charge of a medical officer, while all railway employes will be required to be trained in the performance of first-aid duties. The cars will be so located that none will be more than an hour and a half away from a hospital, thus rendering quick transportation for victims who require serious attention.

German Congress of Hygiene.—The twenty-seventh annual meeting was held in Munich, September 17 to 20. Dr. Gärtner, Jena, discussed the hygienic supervision of the water-supply; Dr. Grassmann, Munich, the influence of quackery on the health of the the population; Dr. Roth, Potsdam, the health relations between city and country; Dr. Emmerich, Munich, the profession of baker from the hygienic standpoint; Dr. Ebeling, Dessau, the question of building construction, especially the problem of damp dwellings. Dr. Abel, Berlin, took part in the discussion, as did Dr. Spiess, Frankfort-on-the-Main.

Obituary.—Dr. Alfred Graefe, the well-known ophthalmologist, died in Innsbruck, September 1.—The death of Dr. Federico Rubio, of Madrid, the leading Spanish surgeon, occurred recently. He was 85 years old.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

September 6, 1902. (No. 2175.)

1. A Discussion on the Modification of Milk in the Feeding of Infants. T. M. ROTCH, H. ASHBY, J. COMBY, A. BAGINSKY, H. de ROTHSCCHILD, W. T. NORTHRUP, G. CARPENTER, C. E. PRITCHARD, J. THOMPSON, F. M. SANDWITH, J. W. BYERS.
2. A Discussion on the Surgery of Those Affections of the Central Nervous System Which Occur More Especially in Children. H. J. STILES, W. T. THOMAS, R. C. DUN, W. T. MONTGOMERY, N. SMITH, J. CHIENE, J. CLOTHIER.
3. On Defective Co-ordination in Utero as a Probable Factor in the Causation of Certain Congenital Malformations. JOHN THOMPSON.
4. A Note on the Operative Treatment of Flail Paralytic Elbow. ROBERT JONES.
5. The After-Treatment of Erasion of the Knee Joint. JOSEPH COLLIER.
6. A Note on the Surgical Treatment of Spastic Infantile Paralysis. ROBERT JONES.
7. The Treatment of Feeble-Minded Children. ALFRED EICHHOLZ.
8. A Discussion on the Value of Respiratory Exercises in the Nasopharyngeal Lesions of Childhood. W. A. LANE, H. ASHBY, F. SEMON, S. SPICER, P. McBRIDE, A. BAGINSKI, H. R. HUTTON, M. COLLIER, H. CAMPBELL.
9. Buttermilk as an Infant Food. A. BAGINSKI.
10. Congenital Nystagmus in Father and Child. THEODORE FISHER.
11. Splenic Anemia of Infancy (Pseudoleukemic Anemia). J. S. FOWLER.
12. Splenic Anemia of Infants. C. H. MELLAND.

1.—A discussion on the modification of milk in the feeding of infants was opened by Rotch. Owing to the variations possible in the glandular mechanism of the human female and to the variations in its composition there is nothing ideal about breast milk, although it is by far the best that has so far been found for the human infant. When breast milk has to be substituted by the milk of some other animal, that of the cow is the most desirable and the milk of the hardy breeds, such as the Holstein, is best adapted for purposes of modification. Furthermore, the milk of a herd of cows is practically more stable than that of a single cow. The addition of starch to milk in the early months of life is unnecessary as the coagulum can be made finer by whey, and there is no danger of taxing the amylolytic function or of weakening it. Lime water has no effect on the character of the coagulum. Milk sugar is preferable to cane sugar in the modification of milk. Cow's milk should be rendered alkaline by the addition of 5% lime water for infant feeding. Raw milk is more suitable for the infant than milk sterilized by heat, and it should be the aim of the physician to obtain a product that is as nearly sterile as possible when first produced. The author then describes the necessary precautions for the production of such a milk. He is an advocate of cream-whey modifications and gives many essential details to be observed in the preparation of different formulæ. [J. M. S.]

2.—Stiles claims that *spina bifida* should be treated as herniæ in other portions of the body are treated, by excision of the sac. Although the injection of Morton's fluid cures many cases, it is much more dangerous than aseptic excision of the sac. The association of hydrocephalus with a *spina bifida* contraindicates operation. Stiles would operate on patients with partial paralysis but would reject those cases in which there is complete paraplegia with loss of control over the sphincters. Operation is contraindicated when the base of the tumor is so large and the skin over it so thin that it is impossible to obtain sufficient skin to cover the defect. It is better to delay operation until the child is a few months old, but if the tumor is rapidly enlarging and threatens to perforate, operation should be performed no matter what the age of the infant. We cannot hope for any permanent benefit from surgical interference in the treatment of internal hydrocephalus. The

operation of linear craniectomy for microcephalus is founded on false suppositions and on an insufficient pathological anatomy. Operation for tuberculous meningitis is not to be recommended. Nontubercular posterior basic meningitis may be treated by removing the laminae of the seventh and eighth dorsal vertebrae, incising the dura, and thus establishing drainage, if the fluid be found turbid by lumbar puncture. Puncture of the lateral ventricles along with lumbar puncture may be resorted to early and if the fluid be at all purulent, drainage effected by the introduction of a small silver tube is preferable to repeated tapping. Drainage of the fourth ventricle through a trephine opening above or to one side of the foramen magnum does not justify further trial. Pott's disease with paraplegia of recent origin is best treated by rest and extension. The success of laminectomy depends on the nature of the morbid condition found; a displaced sequestrum, a direct narrowing of the canal at the seat of greatest curvature, or an abscess will offer the best prognosis. Paralysis from pachymeningitis offers an unfavorable outlook. Forcible reduction of a tubercular kyphosis is condemned. [F. T. S.]

3.—Congenital hypertrophy of the bladder with dilation of the ureters and renal pelvis without organic obstruction, congenital hypertrophy of the colon with no organic stricture and congenital hypertrophy of the pylorus and stomach are 3 types of congenital malformation in which no permanent organic cause is discoverable. The anatomical abnormality in these conditions consists of very great muscular hypertrophy of the walls of a hollow organ which, to some extent, is functionally active *in utero*. Thomson believes that these cases are due to overexertion of the organs *in utero* and that the overexertion is due to defective co-ordination. [J. M. S.]

4.—Jones speaks of cases in which the muscles controlling the elbow are paralyzed and in which the use of the hand is not impaired. He proposes and has practised in 5 cases making an extensive diamond-shaped incision involving the lower third of the arm and the upper third of the forearm on the anterior surface. The skin included in this incision is excised, the forearm flexed on the arm to a little more than an acute angle and the raw surfaces apposed and so sutured. [F. T. S.]

5.—Collier urges that in the after-treatment of cases of *eration of the knee joint*, the limb should be encased in a plaster-cast after the stitches have been removed. A window is made in the cast in order that the patella may be moved several times a day to prevent its forming adhesions. Flexion of the joint after operation is facilitated if the patella be adherent, as the quadriceps extensor has no action on the joint to oppose the hamstring muscles. At the end of from 4 to 6 months the patient is allowed to walk without support if there is some power of extension; if there is no voluntary power of extension a support should be worn for at least 2 years. [F. T. S.]

6.—Jones has operated upon over 100 cases of *spastic infantile paralysis*. The treatment is divided into the mechanical, operative and educational. The mechanical treatment consists in prolonged fixation of spastic muscles in a position opposed to the spasm. The operative treatment consists in tenotomy or tendon transplantation; myotomy is to be avoided. The educational treatment consists in movements practised slowly and without excitement, chiefly in the direction opposed to the deformity. [F. T. S.]

7.—Eichholz contributes a paper on the treatment of *feeble-minded children* that applies to the conditions in Great Britain, where special schools have been established for the instruction of this class. [J. M. S.]

8.—In cases of underdevelopment of the nose and pharynx the primary defect is a diminution of the vital capacity of the individual. As a result we find: (1) A narrowing of the alveolar arch; (2) an increase in the height of the palate along the middle line; (3) a diminution in the breadth and height of the nasal cavities; (4) lateral compression of the anterior nares; (5) habitual partly opened mouth with uncovered incisor teeth; (6) rapid decay of the temporary teeth; (7) the passage into the stomach of micro-organisms and their products in the decomposing food and epithelial debris which collect on the spongy gums and carious teeth; (8) an inflammatory condition of the pharyngeal tonsil; (9) interference with the development of the auditory apparatus from obstruction to the lumen

of the Eustachian tube; (10) a diminution of the length of the alveolar margin; (11) a small tongue from lack of use of the muscles of that organ. All these troubles may be avoided altogether in the large majority of cases if proper measures of respiratory exercises are adopted from the first. If any of these lesions has developed it may be removed or very greatly diminished by proper attention to the aeration of the lungs, the ventilation of the nasopharynx and the proper performance of the functions of the body. [J. M. S.]

9.—Baginsky began to use **buttermilk for infant feeding** in July, 1901. The buttermilk is made from pure cream, which is soured by the micro-organisms of lactic acid fermentation. The fat is thus reduced to 0.3% to 0.5%. To one liter of buttermilk thus obtained 15 to 25 gm. of wheat flour and 35 to 50 gm. of cane sugar are added, with constant stirring this mixture is allowed to boil for at least 2 minutes; it is then poured into sterilized bottles, with cotton stoppers, and kept on ice until used. Out of 182 cases fed upon buttermilk, the results were excellent in 150 and in the remainder the improvement was less pronounced. The great value of buttermilk shows itself in the acute cases of dyspepsia up to the severe grades of enteritis with vomiting and diarrhea. The improvement is manifested by the pasty condition of the stools and their loss of odor; by the gain in weight of the patient, and by his general appearance. [J. M. S.]

10.—Fisher reports a case of **congenital nystagmus in father and child**. [J. M. S.]

11.—Fowler has studied 20 cases of **splenic anemia of infancy**. He is of the opinion that the condition is a primary disease. Enlarged spleen associated with anemia is not uncommon among young children. The changes in the blood are characterized by a lymphocytosis and the presence of erythroblasts in numbers out of all proportion to the diminution of the red corpuscles. Since the splenic enlargement is more constant than any single change in the blood and since both arise independently from any other disease, the author does not think it justifiable to regard these as cases of secondary anemia. He does not think that the term pseudoleukemic anemia should be given to the more severe cases. [J. M. S.]

12.—Melland reports 8 cases of **splenic anemia of infants**. In the treatment of this condition he uses iron, arsenic, careful feeding and cod-liver oil. [J. M. S.]

LANCET.

September 6, 1902.

1. An Address Delivered to the Graduates on July 26, 1902, at the University of Edinburgh on the Occasion of the Admission to Degrees in Medicine, and of the Conferring of the Honorary Degree of LL.D. upon the Representatives of the Colonies.

E. A. SCHAEFER.

2. On the Results which have been Obtained by Antityphoid Inoculation. A. E. WRIGHT.

3. The Clinical Use of the Ipecacuanha Alkaloids.

R. B. WILD.

4. A Plea for Tenotomy of the Tendo Achillis in Complicated Fractures of the Lower Extremity.

W. THELWALL THOMAS.

5. Some Observed Variations in the Phosphates and Urea of Urine. EDWY G. CLAYTON.

6. Note on the Origin of Urine Albumin.

LUDWIG ASCHOFF.

7. A New Route for Posterior Gastro-jejunostomy, with Notes of Four Cases. J. BASIL HALL.

8. Note on the Diagnostic and Prognostic Value of the Leukocyte Variations in Asiatic Cholera.

LEONARD ROGERS.

9. Environment as a Cause of Ague.

MATHEW D. O'CONNELL.

10. Results in Havana during the Year 1901 of Disinfection for Yellow Fever, under the Hypothesis that the Stegomyia Mosquito is the only means of Transmitting the Disease. W. C. GORGAS.

11. Case of Right Aortic Arch with Abnormal Disposition of the Left Innominate Vein and Thoracic Duct.

S. CAMERON.

12. Three Cases of Actinomycosis.

PENRY W. ROWLAND.

2.—Wright contributes an article on the results which have been obtained by antityphoid inoculation. A table presenting the statistics of antityphoid inoculation is appended. He reaches the following conclusions:—There is a risk that (a) in the case in which the patient's resistance is naturally low or has been reduced, as is often the case, by a previous attack of typhoid fever; (b) in the case in which the patient is inoculated with a full dose of vaccine in actually infected surroundings; and (c) in the case in which the patient is inoculated with an excessive dose or is re-inoculated too soon, the system may be left more open to infection at a period when it stands in need of protection. The facts set out in Column 6 of Table II., and possibly some of those which have arrested the attention of Crombie, seem to him to indicate the reality of this risk. It must be the task of the future to try to minimize the risk, on the one hand, by working out an adequate method of standardization of the vaccine, and, on the other hand, by combining with the study of the changes produced in the blood by antityphoid inoculation the study of the blood in the typhoid convalescent, and the study of the gradual success or failure of the process of immunization in the actual typhoid attack. It is not necessary to insist on the urgency of this task.

[F. J. K.]

3.—Wild discusses the clinical use of the ipecacuanha alkaloids. He states that from his personal experience he has every reason to be satisfied that in the hydrochloride and hydrobromide of emetine we have stable salts of reliable action which can be given in small and convenient doses for expectorant, depressant or emetic purposes. He is not convinced that these salts have a special diaphoretic action. They are best given by the mouth. Cephaeline hydrochloride was found to be less stable for the ordinary uses of ipecacuanha in catarrhal conditions and bronchitis than the emetine salts. The emetic action of cephaeline is so powerful that it is with difficulty that the dose is regulated without causing illness for several days. He mentions that in one case 1-100 of a grain every 4 hours produced nausea and vomiting for 3 days. He also found that the salts of cephaeline were less stable than those of emetine. The hydrochloride and hydrobromide alcoholic solutions of emetine have remained clear, colorless and active for several years. He thinks the hydrobromide solution is purer than the hydrochloride. The emetine hydrobromide in a 20% alcoholic solution containing one grain in every fluid ounce, he states, has proved very satisfactory. [F. J. K.]

4.—Thomas urges the employment of tenotomy of the tendo Achillis in complicated fractures of the lower extremity. He calls attention to the great difficulty frequently met with in absolutely reducing fractures of the lower extremity. He has found in many of these, particularly oblique fractures of the tibia, that a tenotomy of the tendo Achillis results in the most satisfactory apposition of the fragments, that the operation can be easily done under local anesthesia if it is desired, and that the tendon has always united thoroughly long before the patient is able to use the limb. [J. H. G.]

5.—Clayton has observed variations in the phosphates and urea of urine, in a case of tuberculosis, in one of diabetes mellitus, and the urine of a normal individual, the results of which appear in a tabulated form. The most important points in this table are that, in the case of tuberculosis, the phosphates and urea were unusually low. The uric acid in this case is also decidedly low, but the salt and sulphuric acid did not present notable departures from the normal proportions. [F. J. K.]

6.—Aschoff contributes a note on the origin of urine

albumin. His experiments seem to confirm those of Merten which show that the albumin present in nephritic urine is derived from the blood and is different from the specific kidney albumins. [F. J. K.]

7.—Hall, after discussing the difficulties and disadvantages of both the anterior and posterior methods of performing gastro-jejunoscopy, reports 4 cases in which he has anastomosed the jejunum and the stomach through an opening made in the gastrocolic omentum. He believes that this method does away with the usual objections to both the anterior and posterior operations. [J. H. G.]

8.—Rogers discusses the diagnostic and prognostic value of the leukocyte variation in Asiatic cholera. He examined the blood of 23 cholera patients, the results appearing in a tabulated form, and also in 6 cases of noncholeraic diarrhea which results appear in another table. In the cases of cholera he found a decided rise in the number of erythrocytes and in the hemoglobin percentage which was due to blood concentration. A marked increase in the number of leukocytes was also found in all of the 6 cases, which was shown to be partly due to blood concentration and partly to an increase in the number of colorless cells. He considers a high degree of leukocytosis a bad prognostic sign, a slight degree a good one. However a very high degree is not incompatible with recovery, and he also holds the view that the constancy of the occurrence of leukocytosis in cholera is of importance in distinguishing it from other forms of acute diarrhea in which it is absent. It has not, however, an absolute value, as it occurs in ptomaine poisoning and sometimes in cases of acute dysentery beginning with severe diarrhea. The differential counts showed an increase in the percentage of polymorphonuclear cells, somewhere about 80%. He found a very marked decrease in the percentage of lymphocytes, under 10% in 13 out of 17 cases examined on the first and second days of the disease, while the large mononuclear cells were usually increased above the normal percentage as well as absolutely, so that the large mononuclear cells usually outnumbered the lymphocytes often to the extent of two to one. The increase in the large mononuclear cells becomes more marked as the disease progresses, especially in fatal cases. He contends that there is a definite relationship between the decrease of the percentage and the total number of large mononuclear cells and the severity of the disease—a relationship of the very peculiar leukocyte changes described which it would be difficult to explain on any other ground than that these changes are of a specific nature. This fact, taken with the constancy of these changes in the consecutive series of cases examined and their absence in cases of noncholeraic diarrhea, encourage one to believe that a larger experience will confirm the conclusions derived from a study of the data recorded in the tables of this paper—namely, that the leukocyte changes described above have a considerable value as a simple and rapidly applied guide in both the diagnosis and prognosis of cholera. [F. J. K.]

9.—O'Connell contributes an article entitled *environment as a cause of ague* and summarizes as follows:—(1) Cases of fever, clinically identical with malaria, occur, in the blood of which parasites could not be found after repeated search and before quinine had been given. (2) The meteorological environment found where such cases occur, and indeed in all malarial climates, increases the amount of water in the blood of those exposed to its influence by impeding elimination through the skin and lungs (evaporation—heat loss) and through the kidneys. (3) There is known to be increase of water in the blood of those suffering from ague (Liebermeister). (4) Increase of water in the blood increases metabolism—i. e., heat production—and produces a rise of body temperature (Payne). (5) As environment thus causes diminished heat loss from the body and increased heat production within the body, it is plain that it causes pyrexia. (6) This pyrexia must be of the intermittent variety as the environment

which produces it is of intermittent intensity—i. e., undergoes diurnal variation. (7) Elimination of water from the blood (sweat) in ague reduces the temperature to normal. (8) Increase of water in the blood produces poikilocytosis, pseudoparasites, liberation of hemoglobin, extensive destruction of red blood corpuscles and melanemia. (9) An extreme degree of these changes obviously leads to hemoglobinuria. (10) Increase of water in the blood produces enlargement of the spleen. (11) Removal from the environment that produces increase of water in the blood usually cures ague. (12) All treatment of ague which is efficacious reduces the amount of water in the blood. (13) From these facts the author thinks it not unreasonable to conclude that those cases of ague or intermittent fever in which no parasites can be found are demonstrably due to the environment under which they rise. If the author's view is correct, it is only one more illustration of the truth of the old saying that pathology in many instances seems to be but physiology in distress. [F. J. K.]

10.—Gorgas writes on the results in Havana, during the year 1901, of disinfection for yellow fever. He shows that the disappearance of yellow fever during the last 3 months of the year is evidence of the practical demonstration of the mosquito theory. [F. J. K.]

11.—Cameron reports a case of right aortic arch with abnormal disposition of the left innominate vein and thoracic duct. The points of interest in this case are:—(1) The arching of the aorta over the right bronchus and its descent for the most part in the right posterior mediastinum; (2) the absence of the innominate artery; (3) the origin of the left subclavian artery from the pouchlike trunk on the left side of the descending aorta; (4) the fact that a vascular circle is formed around the trachea and esophagus; and (5) the large but impervious ductus arteriosus uniting the pouch and the left pulmonary artery. [F. J. K.]

12.—Rowland reports 3 cases of actinomycosis. [F. J. K.]

MEDICAL RECORD.

September 20, 1902.

1. Hysteria and Organic Disease. CHARLES L. DANA.
2. The Family Physician of the Past, Present and Future. S. A. KNOPF.
3. A Gunshot Wound of the Abdomen, Inflicting Nineteen Perforations of the Intestines and Four Lacerations of the Mesentery, with Recovery. ROBERT F. AMYX.
4. Nasal Disturbances in Typhoid Fever and Their Sequelæ. MAX TOEPLITZ.
5. Diagnosis and Pathology. M. P. OVERHOLZER.

1.—Dana discusses the combination of hysteria and organic disease. He groups the main objective stigmata and subjective symptoms of hysteria major under 5 heads: (1) The anesthetics; (2) the contractures; (3) the palsies and tremor; (4) the attack and (5) the peculiar mental state. The hysterical syndrome is oftenest associated with organic lesions due to trauma but the various symptom groups appear also with tumor of the brain, encephalitis, meningitis, multiple sclerosis, tabes and, more rarely, with inflammatory disease of the nerves. He discusses the relative stability of the different symptom groups and reports 4 cases of hysteria associated with organic disease. [T. L. C.]

3.—Amyx reports the case of a young colored man, 21 years of age, who received a gunshot wound of the abdomen which inflicted 19 perforations of the intestines and 4 lacerations of the mesentery. The patient recovered. At the operation an incision 5 inches in length was made at McBurney's point. The Czerny-Lembert suture was used in closing the perforations, seven separate perforations being closed in this manner. The portion of the jejunum which contained the 12 perforations was resected and an anastomosis of the intestine was made with Murphy's button. [T. L. C.]

4.—Toeplitz states that in typhoid fever the nose and the

nasopharynx are in a state of dry catarrh. The mucous membrane is usually reddened and loosened and it frequently appears upon the turbinated bodies as a deep dark red and velvety swelling. The entrance and anterior portion of the nasal cavity often present a fuliginous deposit, which, together with a narrowing of the cavities, produces mouth-breathing. The nutritive disturbances caused by the bacillus of Eberth or its products produce **bleeding** in conjunction with the abundance of capillaries, the vulnerability of the anterior portion of the nasal septum and the fragility of the vessel. The bleedings occur in 50 per cent. of the cases during the stages of incubation and the first fever, more rarely in the beginning of the second week; while they decrease at the height of the disease, they become again more frequent during the last few days and during convalescence. Dangerous bleeding may arise from erosion due to **abrasion of the epithelium**, particularly at the anterior portion of the septum. At times this abrasion goes on to ulceration which may lead to perforation of the septum or to adhesions with the opposite surface of the lower turbinate body. [T. L. C.]

5.—Overholzer makes a plea for the application of clinical methods of **diagnosis at the bedside**. He describes an outfit which may be conveniently carried by the physician and which contains a microscope, the various blood instruments and reagents for urine analysis. [T. L. C.]

MEDICAL NEWS.

September 20, 1902. (Vol. 81, No. 12.)

1. The Modern Treatment of Fractures of the Lower End of the Radius, as Indicated by the Röntgen Rays. CARL BECK.
2. Phototherapeutic Apparatus. MILTON FRANKLIN.
3. The Influence of the Röntgen Ray upon the Different Varieties of Sarcoma. WILLIAM B. COLEY.
4. The Present Status of Cancer; Its Etiology and Pathology—The Value of Laboratory Research. EDWARD N. LIELL.

5. Report of a Case of Nontraumatic Acute Suppurative Osteomyelitis with Catarrhal Coxitis: with Remarks. HENRY I. RAYMOND.

2.—Franklin states that **phototherapeutic apparatus** should fulfil the following conditions to be satisfactory: (1) It should be supplied with light by artificial means; (2) the lamp should be as powerful as circumstances will permit, as no arrangement of lenses or reflectors will coax power out of a feeble lamp; (3) the lamp should be an electric arc, using chemically prepared electrodes calculated to produce a spectrum powerful in the ultraviolet; (4) all lamps of incandescent principle of whatever design are to be avoided; (5) condensing and collecting lenses should be as large as the nature of things will permit and should be made of rock-crystal or of some medium equally diaphanous to the chemical rays; (6) the cooling apparatus should consist of a layer of water containing no other substance and sufficiently thick to absorb the greater proportion of the heat rays. It should be enclosed in some kind of a vessel which will not interfere with the passage of the chemical rays; (7) the machine should be mounted in such a way as to enable the operator to adjust and turn it in any direction with the utmost degree of precision. [T. M. T.]

3.—Coley reports a number of cases treated by this method and says (1) that results in cases thus treated prove that the Röntgen ray has a remarkably inhibitory action upon the growth of all forms of malignant disease and that this is especially true of sarcoma; (2) that this action in many cases of even far advanced and inoperable malignant disease may result in the total disappearance of tumors, often without any breaking down of the tissues, the new growth being apparently absorbed; (3) whether the patients have been cured, or the disease has been merely arrested to reappear at some future date, is a question that time alone can decide; (4) recent observations and experiments upon the various forms of carcinoma and sarcoma prove that an agent supposed to be of value

only in a very limited class of superficial epitheliomata promises to be of as great or even greater value in practically every variety of cancer; (5) while at present there is little evidence to show that deep-seated tumors in the abdomen and pelvis can be cured or benefited by the Röntgen ray, there is still some reason to hope that, with improved apparatus or with greater knowledge and skill in using the apparatus we now have, even these cases may be benefited; (6) the Röntgen ray has a very marked influence upon the pain of nearly all types of malignant tumors, causing entire relief in the majority of cases. [T. M. T.]

4.—Liell thinks that there is a ray of hope in inoperable and postoperative **sarcoma** afforded by the use of Coley's preparation of the mixed toxins of erysipelas and bacillus prodigiosus. The explanation of the action of the toxins is probably found in the parasitic and infectious origin of both sarcoma and carcinoma. [T. M. T.]

5.—Raymond briefly gives the symptoms as follows: (1) Sudden invasion; (2) fever and chilly sensation and complete abolition of function of the affected limb, with terrific spontaneous pains in the hip or knee; (3) pressure over the trochanter, or striking the soles of the feet, and any attempt at passive movement of the limbs increase the pains; (4) swelling about the hips and gluteal and anterior femoral regions of a boggy edematous character; (5) there may be multiple affections; (6) in some one joint the inflammation becomes localized while the other affected joints clear up; (7) catarrhal cases may clear up in 4 to 6 months, or possibly a year; (8) suppurative cases may continue for 3 or 4 years; (9) spontaneous luxation of the joint may ensue with ankylosis and distortion. [T. M. T.]

THE NEW YORK MEDICAL JOURNAL.

September 20, 1902.

1. The Plague; its "Diffusive Tendency"; Haffkine's Anti-plague Virus vs. Dr. Yersin's Serum. JAMES DRUMMOND BURCH.
2. The Radical Treatment of Cancer of the Penis. EDWARD WALLACE LEE.
3. Perforating Ulcers of the Duodenum. JOHN B. MURPHY and J. M. NEFF.
4. Complications in the Passage of a Gall-Stone. NEIL MACPHATTER.

1.—Burch agrees with Professor Simpson that the recent epidemic of the plague has a diffusive tendency which plague has not shown for 200 years. After reviewing the course and distribution of the epidemic of plague which began in 1900, he discusses the value of the Haffkine's antiplague virus. He quotes a number of authorities to show that the Haffkine prophylactic serum is of great service in preventing the plague even when given to suspects in quarantine or to persons who have been definitely exposed to the disease. For such cases the Yersin serum was formerly in general use. Haffkine's results in India, however, not only show that his serum does no harm, but, on the other hand, it frequently prevents an outbreak of the disease. A great number of statistics and a series of photographs enhance the value of this article. [M. O.]

2.—Lee describes in full his technique for performing the radical operation for the treatment of epithelioma of the penis. He reports a case occurring in a man, 48 years old. Unfortunately, the patient died 6 weeks after the operation, from exhaustion. The steps of the operation are fully detailed. [M. O.]

3.—Will be abstracted when concluded.

4.—Will be abstracted when concluded.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

September 18, 1902. (Vol. CXLVII, No. 12.)

1. Notes on a Case of Acute Hemorrhagic Polymyositis. WILLIAM SYDNEY THAYER.

2. The Effects of Exercise on the Heart and Circulation.
R. C. LARRABEE.

3. Suprapubic Cystotomy, without Distending the Bladder.
SAMUEL CROWELL.

1.—Thayer reports a case with the following interesting points: (1) The mildness of the subjective symptoms of pain. No case, so far as he has been able to discover, has shown marked muscle swelling with so little pain and disability during the attack. (2) The mildness of the febrile manifestations. The fever has, however, been moderate in other cases of marked severity. (3) The widespread cutaneous discoloration indicative of deep hemorrhage, almost without purpuric manifestations, is a striking and interesting feature of this case. (4) The crepitus in the deltoid muscle. [T. M. T.]

2.—Larrabee says that violent exertion normally causes changes in the bloodpressure, temporary enlargement of the heart's area from dilatation or relaxation of the myocardium, and sometimes a fugitive murmur. The cause of the latter is not obvious. The chief result of training is hypertrophy. As abnormal results of exercises we have acute dilatation, rare in healthy young men, especially if well trained, and as a result of habitual overexercise, "irritable heart" and the other conditions associated with dilatation, hypertrophy or myocarditis, and generally due in part to other predisposing causes. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

September 20, 1902.

1. Surgery of Tubercular Cavities of the Lung.
DE FOREST WILLARD.
2. Concerning the Symptomatology and Etiology of Certain Types of Uveitis. G. E. de SCHWEINITZ.
3. Analysis of Thirty-seven Cases of Uveitis.
HIRAM WOODS.
4. Remarks on the Methods of Operation in Vogue for Cystocele with and without Prolapse of the Uterus.
C. O. THIENHAUS.
5. Surgical Treatment of Hemorrhoids. WM. F. METCALF.
6. The Casual Relation of Blood Poverty to Gastric Ulcer, with Report of an illustrative Case with Atypical Symptoms. R. N. WILLSON.

1.—See Philadelphia Medical Journal, June 21, 1902, page 1100.

2.—De Schweinitz contributes an article concerning the symptomatology and etiology of certain types of uveitis. He discusses recurring and malignant uveitis terminating in secondary glaucoma and cataract; acute uveitis beginning as a scleriticochoroiditis, terminating in myopia and posterior polar lenticular opacity; mild, chronic, senile uveitis, associated with antecedent or subsequent hemorrhages in the vitreous; and relapsing plastic uveitis beginning insidiously in gouty and rheumatic subjects. He reports a number of cases illustrating these conditions.

[F. J. K.]

3.—Woods gives an analysis of 37 cases of uveitis. From a study of these he draws the following conclusions:—(1) That menstruation, in its establishment, or later, if abnormal, intestinal disorders, acute infections and nasopharyngeal disease should be reckoned among the possible causes of plastic choroiditis. Whether or not these conditions are themselves direct causes of lower resisting powers and so enable other causes to act, is uncertain. Nor can it be definitely said that some of these coincident conditions may not themselves be manifestations of recognized causes of uveitis, rheumatism, anemia and the like. (2) These cases of obscure etiology show greater tendency to relapse than forms the cause of which is better known. They almost invariably show descemetitis. (3) The fundal changes of so-called "choroidal hyperemia," especially if accompanied with defective accommodation and vitreous

opacities, demand guarded prognosis and repeated examinations for dim field areas. [F. J. K.]

4.—See Philadelphia Medical Journal, June 21, 1902, page 1110.

5.—See Philadelphia Medical Journal, June 21, 1902, page 1110.

6.—See Philadelphia Medical Journal, June 21, 1902, page 1099.

AMERICAN MEDICINE.

September 20, 1902.

1. The Rational Basis for the Dietetic Treatment of Tuberculosis. WILLIAM HENRY PORTER.
2. Differential Leukocyte Count in the Newborn.
LOUIS M. WARFIELD.
3. Two Aneurysms in a Single Heart. L. M. LOEB.
4. The Excision of Cancer of the Rectum.
LEWIS H. ADLER, Jr.
5. Uterus Bicornis Unicollis, with Ovarian Abscess and Pelvic Hematocele. WILLIAM HESSERT.
6. Chronic Contraction of the Prostatic Fibers Encircling the Vesical Neck; Report of a Case.
J. B. SHELMIRE.
7. Organization and Ethics, or Ways and Means.
P. MAXWELL FOSHAY.
8. Medical and Surgical Notes from Asia.
NICHOLAS SENN.

1.—Porter discusses the dietetic treatment of tuberculosis. He takes up at considerable length the needs of the tuberculous patient and a study of such articles of food as meet these indications. The chief problem in the dietetic treatment of tuberculosis is first to overcome the general malnutrition and next to establish a higher grade of local nutrition at the infected foci. The oxygenating and carbon dioxide excreting powers of the system must not be exceeded if the best results are to be secured.

[T. L. C.]

2.—Warfield has studied the differential leukocyte count in the newborn. His conclusions are as follows: (1) The leukocytes at the day of birth are more numerous than at any other time of normal life. (2) Nucleated red blood-corpuscles rapidly disappear from the circulating blood of the healthy infant within the first three days of life. (3) The percentage of eosinophiles varies widely in the blood of babies of the same age. (4) Myelocytes and "Mastzellen" are only occasionally found and are in very small numbers. (5) The percentage of large mononuclear and transitional cells is large compared to that found in the blood of adults. (6) The polymorphonuclear cells at birth are not only relatively but absolutely increased. They begin to decrease in numbers soon after birth, and by the eleventh day of a healthy infant's life they are fewer in number than the lymphocytes, while the number of the latter variety of cell has actually increased; and the differential count of the leukocytes on the eleventh day is practically identical with the count given in the text-books as normal for the infant's blood. [T. L. C.]

3.—Loeb describes a case in which the heart contained two aneurysms. One was a dilation aneurysm of the left auricle at the apex, the other a dissecting aneurysm of the aorta leading into the wall of the left ventricle.

[T. L. C.]

4.—Adler concludes that cancer of the rectum at the stage usually discovered by the surgeon is less amenable to the knife than cancer occurring in other portions of the body; that operation is followed by cure in a very small proportion of the cases; that the dangers following excision are great and the results as to comfort anything but satisfactory; and yet, in cases seen early, much good can be accomplished by the operation. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

June 5, 1902.

1. The Röntgen Picture in Diseases of the Skull and Brain and in Legal Medicine. Preliminary Communication. M. BENEDIKT.
2. The Control of Hemorrhage in Hemoptysis. O. NIEDNER.
3. The Etiology of Typhoid Angina. E. BENDIX and A. BICKEL.
4. The Method of Examination of the Pupils. L. BACH.
5. Further Remarks Concerning the Method of Examination of the Pupils. O. SCHIRMER.
6. The Etiology of Melliturias as Based upon Newer Investigations. (Conclusion.) H. ROSIN.
7. Apparent Disappearance of the Metabolic Disturbance in the Last Stage of Diabetes Mellitus. ZAUDY.

1.—Benedikt states that he was able to demonstrate the presence of a tumor at the base of the brain by means of the X-rays. He says that consultants who saw the plate did not agree with his conclusion; but he believes that it takes skill to read these pictures. He describes the method of taking profile pictures of either side and of both sides, comparing the pictures of the sides, in order to see minor differences between them. He makes the astonishing statement that differences in different brains (tumors and the like being absent) can be seen in X-ray pictures; and closes with the statement that moral and social reasons have led him to a hasty publication, when he might better have let the matter rest until he had prepared a complete report. [D. L. E.]

2.—Niedner reports several cases of hemoptysis in which he has, with excellent results, used a system of complete strapping of the affected side. He first, by a rapid examination, determines from which lung the hemorrhage comes. He next passes strips of adhesive plaster over the apex and then around the remainder of that side of the chest, making the chest as completely fixed as is possible. A difficulty encountered in one case was the loosening of the straps by the excessive sweating of the patient, and this cannot always be overcome; but when the straps hold well, they apparently aid decidedly in controlling the hemorrhage; and it is reasonable to think that they would, because they give as complete rest to the affected lung as is possible. They have the advantage over gelatin injections that they are not at all dangerous and can be used by anyone, without any special apparatus. The author believes that in one instance in which hemorrhage stopped after the use of gelatin, the result was actually due to the fact that the gelatin infiltrated the tissue over the affected side of the chest, where the injection had been carried out; and, from its mechanical effect and from the pain which it caused, produced complete quite of that side.

[D. L. E.]

3.—The severe sore-throats that frequently occur in typhoid fever are matters of considerable interest as to their etiology and it is the opinion of a good many writers that these conditions are due to the typhoid bacillus. Bendix and Bickel report a case that is of extreme interest in this connection, it being apparently the first satisfactory intravital bacteriological study of this complication. On the eighteenth day of the disease, the patient had severe sore throat. Upon examination, on the right palatoglossal arch, just in front of the tonsil, was a well-localized area of the size of a pea, which was elevated above the surrounding tissues. A similar area was found on the left palatoglossal arch. There were no other changes, excepting in the larynx, which was markedly reddened, and on the epiglottis, which showed an area similar to those previously mentioned. The mucous membrane covering one of these areas was carefully washed off with antiseptics; a platinum needle was passed into the substance of the plaque; and cultures were made. From the cultures they

isolated bacteria which had all the characteristics of typhoid bacilli, including a serum reaction at 1:60 with the blood of a patient with typhoid fever. The plaques ulcerated superficially, and soon became covered over again. The glands in the neighborhood were not ulcerated. There was very marked dyspnea in the early part of the throat trouble; but this soon disappeared, and the patient entirely recovered. Typhoid bacilli have been isolated post mortem from the throat and larynx; but this is apparently the first time they have been isolated from these tissues during life. The authors insist that this does not prove that all throat-affections occurring in typhoid fever are specific.

[D. L. E.]

6.—Rosin's article is a collective abstract, with no personal work in it, but with an excellent description of the present state of affairs. At the end, he refers to some work of Spaethe's, which, since it is otherwise inaccessible, is worth mentioning, particularly as it was carried out under Rosin's direction. By giving large amounts of carbohydrates to dogs, in addition to glucose, considerable amounts of other carbohydrates were found. These decreased with increased quantities of albumin, and were least of all with a fat diet. The author insists that the carbohydrates other than glucose and pentose must be studied more carefully than they have been, up to the present time. [D. L. E.]

7.—Zaudy's case was very interesting in several particulars. It was in a man of 63, who came under treatment on September 14, 1901. He had had diabetes for 2 years. He showed an advanced stage of the disease and appeared to be about to go into coma soon after first being seen. Bicarbonate of soda was given in large doses and the signs of oncoming coma disappeared. On the 19th. of September, a little albumin was found in the urine and there was edema of the feet; the latter disappeared. The patient had phthisis, but it gave him no distress except some cough. His nutritional condition constantly grew worse. The most notable observation, however, was the fact that while, from the time at which he was first seen to the 23d. of October, the acetone and diacetic acid tests had been very marked; it was noted on November 1st. that urine contained neither acetone, diacetic acid, sugar nor albumin, and the specific gravity of the urine was normal. These conditions persisted until the 4th. of November, when the patient died. It was not due to an absence of carbohydrates from the diet, for the patient was taking these freely. There was no question of pure inanition, because he had a large appetite, and death did not come on slowly, but was, on the contrary, rather unexpected. The suggestions that the author makes are that the signs of acid-intoxication were due to the marked destruction of tissue-fats, and that, either the fat had entirely disappeared, or the patient had become unable to break down fats further; or that, on the contrary, he had reacquired the power of using carbohydrates, and that the fat break-down had, therefore, ceased. In the latter case, it was, practically speaking, a certain degree of cure of the diabetes. It is hardly possible that all the fats could have disappeared from the man's tissues, and it is extremely improbable that he had not the energy to break down fats; for his condition was not extremely bad toward the end of his life.

[D. L. E.]

BERLINER KLINISCHE WOCHENSCHRIFT.

June 30, 1902. (39 Jahrgang, No. 26.)

1. The Treatment of Congenital Club-Foot in Infants. W. von OETTINGEN.
2. Suprarenal Extract in Rhinolaryngology. ALBERT ROSENBERG.
3. Malignant Folliculoma of the Larynx. SIGMUND GOTTSCHALK.
4. The Estimation of Uric Acid. BERDING.
5. A New Instrument for Suturing Fistulae or Wounds in Restricted Cavities. VICTOR FROMMER.

6. The Operative Removal of Tubal Pregnancy Through the Vagina. P. STRASSMANN.

1.—Will be abstracted when concluded.

2.—Adrenalin applied to the nasal mucous membrane diminishes sensibility and causes local anemia. It is better than cocaine, since it is not dangerous and does not lead to a habit. It is especially serviceable in the diagnosis of nasal conditions. It is also used in treating acute inflammation in the nose and throat. Its greatest use is as a local anesthetic, generally employed in combination with cocaine, for operation on the nose or throat, no hemorrhage at all resulting. It reduces pain in the pharynx and cures inflammatory laryngitis. Given internally, in minute doses, it may produce good results in hay fever and coryza. [M. O.]

3.—Gottschalk reports a case of a new kind of tumor, which he has called **malignant folliculoma of the ovary**, occurring in a woman of 48. Her thyroid gland was normal in all respects. Laparotomy permitted the removal of both tubes and ovaries. She recovered and has been well over 4 years. Large ascites was present. A minute histological description of the tumor follows. In substance and characteristics it resembled the thyroid gland, being full of follicle-like cysts. Details of the tumor, as found in 3 cases observed by other men, are also given. [M. O.]

4.—Berding reviews the recent articles by Ruhemann and Gabritschewsky, stating that **no reliable practical method of estimating uric acid has yet been found**. He shows the errors in the Ruhemann method, when compared with the Ludwig-Salkowski method. [M. O.]

5.—Frommer describes a **new instrument for suturing fistulæ** or other wounds in circumscribed cavities. Diagrams illustrate the article, making plain the use of the instrument. [M. O.]

6.—Strassmann gives the complete history of operation for removing tubal pregnancy. He has seen 231 women with tubal pregnancy, many after gynecological disease, appendicitis, etc. The great increase in such cases observed nowadays is due to better diagnosis. When operated upon through the vagina, there remains a good chance for normal pregnancy later. While laparotomy gives good results, **colpotomy** has given even better. Fifty-two such cases have been collected, in 9 of which Strassmann operated. In all but one case the tube was removed. In 5 the anterior, in 4 the posterior vaginal wall was incised. His technique and postoperative treatment follow in detail, with the case-histories. The indications for operation are given. Strassmann believes that laparotomy for tubal pregnancy should be done exceptionally only, removal through the vagina being the natural method of treatment for this condition. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

June 26, 1902. (XV. Jahrgang, No. 26.)

1. Meningitis With Influenza. A. GHON.
2. The Condition of the Erythrocytes at High Temperatures. E. WIENER.
3. Six Cases of Chronic Lichenoid Pityriasis.

KARL KREIBICH.

4. The Question of True Generalized Vaccinia.

LUDWIG MERK.

1.—Will be abstracted when concluded.

2.—Wiener reports his experiments with defibrinated blood from sheep and pigs, to which isotonic salt solution or the animal's own bloodserum was added, the mixtures then being raised gradually up to 45°C. He found that the **erythrocytes were destroyed at 42°C**. This destruction begins even at 40°C., and occurs more generally in pig's blood than in that of sheep. The so-called endosoma first becomes liquefied, while the stroma then forms shadows. This condition is due to lesions of the stroma from high temperatures. [M. O.]

3.—Kreibich reports 6 cases of **chronic lichenoid pityriasis**, giving the symptomatology, histology, and differential diagnosis of the affection in detail. [M. O.]

4.—Merk reports a case of **true generalized vaccinia**, occurring in a man of 21, who had been vaccinated in childhood. The eruption, which could not have been anything else, appeared 3 days after revaccination, and soon became general. In 2 weeks he was convalescent. The literature of the subject is reviewed. [M. O.]

July 3, 1902. (XV. Jahrgang, No. 27.)

1. The Intravenous Transfusion of Oxygen.

GUSTAV GAERTNER.

2. The Reaction of the Prostatic Secretion in Chronic Prostatitis. C. PEZZOLI.

3. Some Serodiagnostic Experiments. KARL KREIBICH.

4. Meningitis With Influenza. A. GHON.

1.—Will be abstracted when concluded.

2.—Pezzoli, who examined the **secretion** of a large number of patients with **chronic prostatitis**, proved that this secretion gave an alkaline reaction when lacmus was used and an acid reaction when phenolphthalein was used as the reagent. Out of 60 cases titrated with both acetic acid and sodium hydroxide, 57 were **markedly alkaline** in reaction. Spermatozoa were found in 18 cases, in 17 of which the reaction was also alkaline. Therefore Finger's conclusion, that the alkaline reaction of the secretion of chronic prostatitis exerts a destructive influence on the motion of spermatozoa, which was disputed by Lohnstein, is correct. [M. O.]

3.—Kreibich reports the negative results of his experiments with serum from various skin lesions upon a solution of human blood from another individual. Hemolysis never occurred. When the blood of rabbits was used, however, hemolysis occurred immediately. [M. O.]

4.—Ghon reports in detail the case-histories of 2 patients with **meningitis and influenza**. A man of 33 died with leptomeningitis of the right hemisphere, empyema of the right frontal and supramaxillary cells, pneumonia, etc. The full autopsy report follows. Cocci, resembling pneumococci and streptococci, and influenza bacilli were cultivated. Cloudy swelling was noted in the cardiac muscle, liver and kidneys. In this case the meningitis was due to mixed infection. The report of another case occurring in a child of eight months follows. The autopsy showed purulent cerebrospinal meningitis, pneumonia, etc. Influenza bacilli were found alone. In this case leptomeningitis was metastatic, secondary to influenzal pneumonia. A full review of the literature of the subject is given. Of the 12 cases of certain influenzal meningitis 8 occurred in children. [M. O.]

DEUTSCHE ZEITSCHRIFT FUER NERVENHEILKUNDE.

December, 1901. (B. 21. Hft. 1-2.)

1. Multiple Scleroses of the Central Nervous System.

HOFFMANN.

2. Pathological Anatomy of Hemiathetosis: At the Same Time a Contribution to the Knowledge of the Tracts Descending from the Corpora Quadrigemina.

HAENEL.

3. Five Cases of Tumor of the Cerebellum. von VOSS.

4. Contribution to the Knowledge of the Symptom Complex of Disseminated Sclerosis of the Posterior and Lateral Columns, Based upon the Changes Found in a Case of Meningomyelitis, Probably Luetic.

BIKELES.

5. Clinical and Experimental Studies Upon the Innervation of the Bladder, Rectum and Genital Apparatus.

MUELLER.

1.—Hoffmann contributes a valuable and careful analysis of the literature of **multiple sclerosis**, partly illustrated by his own experience, which includes the observation of more than 100 cases and 3 microscopical studies of the central nervous system in this disease. The etiology is not clear. It occurs most frequently between the years of 18 and 35, equally in men and women, most frequently among the laboring classes. Occupation appears to be without particular influence. Hoffmann is not inclined to lay great stress upon the hypothesis that the disease follows infection. In his own cases infectious diseases preceded the symptoms in 5% of the cases. Syphilis plays no part. The metallic poisons have been supposed to have influence. In his 100 cases there was but one in which the occupation brought the patient into contact with lead. Alcohol, dissipation, etc., do not appear to play any particular role. Exposure to cold, especially if associated with dampness, has been sup-

posed to have some influence. In Hoffmann's cases there were 13 who gave such a history, but only 4 in which some other etiological factor was not accused. Emotional disturbance, parturition and injury have also been supposed to play an important part. Hoffmann is inclined to believe that they tend to make the disease somewhat worse when it actually exists, although in his 100 cases 13 gave a history of severe injury. However, in more than one half of all cases no etiological factor could be determined. The symptomatology of the disease is extremely varied. Mentally there is diminution of intelligence and perhaps symptoms simulating paralytic dementia. Occasionally there are attacks of Jacksonian epilepsy. The speech defects are scansion, dysarthria, aphasia, etc. The motor defects consist in hemipareses, coarse paralyzes, monopareses or paralyzes in the distribution of a single nerve. The patients may have palpitation of the heart, vomiting, dyspnea, glycosuria, polyuria, etc. The symptoms may simulate those of bulbar paralysis, or there may be symptoms of paralysis agitans including the pro- and retropulsion. In 54% of all his cases Hoffmann observed disturbance of speech. In 64% vertigo; in 6% there were gastric crises all associated with vomiting. There may be disturbances of sight involving one or both eyes, and disturbances of the eye muscles. There may be swelling of the papillæ observed by Hoffmann in 50% of his cases. Nystagmus was present in 56% of his cases; ataxia of the iris or intention tremor of the iris has been described as a rare symptom. Disturbances of smell and taste are rare; disturbances of hearing very slightly more common. The spinal symptoms are particularly those involving the motor tracts. They are usually spastic, although flaccid paralysis with loss of the tendon reflexes may occur. Brown-Sequard's syndrome may also be present. Intention tremor occurred in 71% of Hoffmann's cases. Swaying when standing with the eyes open is also fairly common. Various symptoms of paresthesia may occur. These were present in 66% of the author's cases. Objective hypesthesia with anesthesia and occasional disturbances of the stereognostic sense are also frequently present. In the majority of cases the tendon reflexes are exaggerated; the skin reflexes vary considerably. The abdominal reflex was absent in 29% of Hoffmann's cases. Babinski's reflex is frequently present. In 60% of Hoffmann's cases there was disturbance in urination. Impotency occurred in 2 cases; conception was apparently not affected. Vasomotor changes are rare; muscular atrophies are also rare but do occur. The course is variable. From time to time the patients have remissions that usually are followed by a fresh increase. The diagnosis in the first stages is excessively difficult. Hoffmann mentions 23 other diseases that may be confused with multiple sclerosis. Cure is practically unknown: at least it is not certain. The prognosis is therefore unfavorable. The duration of the disease varies from 2 months to 20 years. Treatment consists in the avoidance of injurious factors, rest, moderate hydrotherapy and the administration of certain drugs, particularly quinine, potassium iodide, silver nitrate, strychnine, nitroglycerine, salicylic acid, antipyrine, etc. Bath-cures of various kinds, and mercurial innunctions, which, in Hoffmann's experience usually aggravate the case, should be avoided. The pathology is variable. There are changes in the vascular system, in the neuroglia and in the true nervous elements. No satisfactory explanation of these changes has been. The majority of authors believe that the process is inflammatory, and a few agree upon it as a form of gliosis, perhaps congenital in type. Hoffmann does not believe that we are in a position to determine from which part of the nervous system the process actually arises. [J. S.]

2.—Haenel reports the case of a man, 21 years of age, who had always been paralyzed on the left side. At the age of 20 he had acquired syphilis, and some months afterward developed cough, expectoration, emaciation and night sweats. Physical examination showed no motor or

sensory disturbances excepting a slight sluggishness in mimicry on the left side. The left arm was somewhat smaller and kept in a position of slight flexion and in continual athetoid movements. It was possible to control these only for a brief interval of time, the muscles were spastic; the tendon reflexes could not be elicited. The left leg was atrophied; there was pes equinovarus, no athetosis, and fair control of voluntary movements. The patellar reflex was very weak on the right side and absent on the left side. Sensation was normal in both arms and legs. The patient had a tuberculous cavity in the lung from which he died. The autopsy showed the presence of an old focal lesion in the subthalamic region which had produced almost complete destruction of the right crus, and which extended from the right internal geniculate ganglion as far as the surface of the posterior corpora quadrigemina. It appeared to have been a vascular rather than an inflammatory process. The pyramidal tract for the left side of the body was absent. There were, however, certain groups of fibers not normally present that could be distinguished in the dorsal portion of the pyramidal tract in the medulla, particularly 2 groups that Haenel describes very carefully. He believes that there can be no doubt that these fibers were newly formed on account of their situation and general appearance. The source of these fibers was not clearly made out, but it is possible that they came from the pyramidal tract belonging to the other side of the body. The case appears to prove the contention of Bonhöffer that in cases of athetosis the subthalamic region must be involved. It was difficult to understand why atrophy should occur, although it is known that it almost invariably does, and it is very difficult to understand why the spasticity was not present in the legs. No atrophic condition was found in the brain cortex. [J. S.]

3.—von Voss reports 5 cases of cerebellar tumor. The first, a woman, 35 years of age, a year before her death began to develop severe headache. On one occasion she became unconscious and was paralyzed in 3 extremities. Later these 3 extremities frequently showed clonic convulsions. She developed vomiting and gradual loss of vision; her gait became uncertain, there were athetoid movements in the right hand, ataxia of the left hand, with loss of the stereognostic sense. Argyll-Robertson pupils were present and from time attacks of complete paralysis of one or more extremities. A diagnosis of cerebellar tumor was made and operation preformed. Four days later the patient died. At the autopsy a tumor was found in the posterior portion of the fourth ventricle with marked dilatation of the central canal in the cervical portion of the cord. The tumor was an angiosarcoma. Second case, a woman of 34 years, had had severe headache for about 3 years. About 3 months before admission her sight became bad, there was nystagmus, some paresis in the right shoulder, diminution of sensation in the distribution of the left trigeminus and persistent headache. Mercurial innunctions did not produce any improvement, the patient died, and at the autopsy a tumor was found springing from the anterior surface of the right tentorium. Microscopically it was endothelioma; a similar tumor was found in the liver. This tumor could have been readily removed by operation. The third case, a man, 20 years of age, had had headache for 2 years, coming on after a severe fall from a horse. He was drowsy, appeared somewhat demented. There was enlargement of the cervical glands posteriorly, diminution in vision, inequality of the pupils, no paresis, slight ataxia of the extremities and disturbance of gait. The patient improved somewhat on antisyphilitic treatment. The fourth patient, a man of 19 years, had severe headache for about 6 months. Toward the end of this period his vision diminished and he became completely blind. There was slight deafness in the right ear, evidently of nervous origin, loss of smell on the right side, and the muscles of the lower extremities were hypotonic. The reflexes were lost, with the exception of the Achilles tendon reflex; sensation was normal. Lum-

bar puncture was negative. The patient from time to time had attacks of vertigo and left the hospital, dying a short time afterward. The fifth case, a man, 21 years of age, for 5 years an excessive drinker, had an attack in which he lost consciousness, then had severe headache, vertigo, tinnitus, weakness of the legs and vomiting. The mind became somewhat weaker, there was diminution of vision, irregular gait, normal tendon and increased skin reflexes, slight hyperalgesia and slight albuminuria. The patient's symptoms improved upon potassium iodide, but the motor disturbances grew worse and he died. An autopsy was not performed. von Voss gives a valuable table of the symptoms of these 5 cases, and some of these symptoms are of considerable interest: For instance the giving away of the legs, the atypical disturbances of gait and the rapidly fatal course in the 2 last cases. In 3 of the cases there was rigidity of the muscles of the neck, a symptom upon which Oppenheim lays particular stress. [J. S.]

4.—Bikeles reports the case of a man who, at the age of 20, had syphilitic infection. From that time he was healthy until a few months before his death, when he had severe pain in the lower portion of the abdomen, sometimes associated with eructations and vomiting. There was difficulty in retaining the urine, some disturbance of gait, with a feeling as if he were walking upon cotton. There was obstinate constipation, and, finally, as a result of repeated catheterization, cystitis. There was some loss of power in the lower extremities, some diminution of pain sense in the same region and the knee jerks were distinct. Otherwise the reflexes were normal. The patient finally died of the cystitis which had become combined with a pyelonephritis. The essential changes found in the central nervous system were: An area of degeneration in the whole circumference of the spinal cord, areas of perivascular sclerosis in the lateral posterior columns, with secondary ascending and descending degeneration. In the brain there was slight leptomenigitis, and in the medulla in addition to this, some perivascular sclerosis. The clinical symptoms were paresis without spasticity, preservation of the knee jerks associated with symptoms of degeneration in the posterior columns. The case resembles somewhat the symptom complex described by Rithmann, but differs in the fact that there were some pupillary disturbances, that is, the pupils were contracted and reacted sluggishly to light. The pathological changes were strongly in favor of a luetic process. [J. S.]

5.—Müller contributes a long paper upon the innervation of the bladder, rectum and sexual organs. He reports a remarkable case of a man, 48 years of age, who suffered from transverse myelitis in which every 3 or 4 hours the urine was spontaneously discharged without any control by the patient, and in the intermediate time no trouble occurred. A somewhat similar condition was observed in a woman who also had some transverse lesion in the dorsal portion of the spinal cord; and in a man who had an old transverse myelitis of 16 years standing. In another man, 30 years of age, suffering from multiple sclerosis, the urine was spontaneously evacuated. In a girl suffering from the same disease urination occurred spontaneously not more than once or twice a day and catheterization showed the presence of a large quantity of residual urine. In a patient suffering from disseminated myelitis, who as a result of catheterization developed cystitis, the urine was discharged in moderate quantities every hour. There was also spontaneous evacuation of the rectum. It is interesting to note that in case of disease of the lower portion of the spinal cord the same phenomenon may ensue, and therefore Müller is convinced that the center for the rectum and bladder lies external to the spinal cord. He mentions a number of cases of locomotor ataxia in which there were marked disturbances in urination and in the sexual functions. In these cases there is evidently some anesthesia of the bladder and rectum. He mentions 2 cases of combined systemic disease in which there were disturbances of micturition, the bladder being involuntarily evacuated at frequent intervals throughout the day. Similar symptoms

may occur in cases of hysteria. He has also performed some experiments upon dogs, which consist of essentially in the removal of larger or smaller portions of the spinal cord. The results generally confirmed Müller's opinion that the function of the bladder and rectum are vegetative in character, and are innervated essentially from the sympathetic nervous system. The article contains some valuable data regarding the investigation of the disturbance of these functions in disease. [J. S.]

DEUTSCHE ZEITSCHRIFT FUER CHIRURGIE.

May, 1902. (Volume 63, Nos. 5 and 6.)

16. Spinal Surgery. EUGEN HAHN.
17. The Surgical Relations of Influenza. G. PEREZ.
18. The Use of Magnesium in Treating Diseases of the Bloodvessels. ERWIN PAYR.
19. Crushing in Intestinal Surgery. ERWIN PAYR.
20. Walter von Heinecke. ERNST GRASER.
21. Dislocation of the Shoulder With Rupture of the Long Thoracic Artery From the Axillary Artery. W. von NOORDEN.
22. Statistics Upon the Operative Treatment of Aneurysm. H. JACOBS, HAL.
23. The Mechanism of Typical Fracture of the Radius. KUHN.

16.—After reporting 14 case-histories and 9 preparations demonstrating details in spinal surgery, Hahn concludes that, when an arched fracture of the vertebral column occurs, with compression, operation cannot be performed too early. When dislocation and crushing of the spinal cord accompany fracture and compression, all operations are useless. As long as there is any suspicion of contusion, with hemorrhage, an operation is contra-indicated. When there is paralysis with compression and fracture, with narrowing of the lumen of the spinal canal, laminectomy should be attempted, to remove the pressure by extirpating fractured bone. If this fail, then part of the compressing vertebra should be removed. If improvement follows fracture of the body of the vertebra, an operation is not indicated; otherwise operation should be done. His operative technique follows. [M. O.]

17.—Perez notes the surgical affections of the upper respiratory and digestive tracts, the joints and ear, due to influenza, giving their course, symptoms, complications and treatment. [M. O.]

18.—Payr reports a nevus on the chin of a young girl, in which, a week after cauterization, 7 tiny magnesium arrows were inserted, the incision being closed by suture. In a week more the nevus no longer showed swelling when the head was flexed. Absolute recovery followed, without pain and with only a tiny scar. [M. O.]

19.—Payr reports a case of incarcerated crural hernia, in a woman of 19, in whom a gangrenous portion of the ileum was resected. The ileum containing a perforation was close to the cecum and was therefore crushed by the Mikulicz enterotribe and closed by a purse-string suture. The resected end of the ileum was then sutured into the cecum. Death followed from sepsis and pneumonia. A hematoma had formed along the cecum. [M. O.]

20.—Graser reviews the life work of Walter von Heinecke, late professor of surgery in Erlangen. [M. O.]

21.—Rupture of large branches of the axillary artery with dislocation of the shoulder is rare. von Noorden reports a case of rupture of the long thoracic artery from the axillary artery with dislocation of the shoulder in a man of 70, with death in 2 hours. Pathological details follow. [M. O.]

22.—Jacobsthal has collected many statistics upon the operative treatment of aneurysm of the innominate artery, reporting Braun's case in a woman of 42. The common carotid and subclavian arteries on the right side were ligated simultaneously. Death from weakness occurred 51 days after operation. This was the treatment in 55 of 94 such cases collected from the literature. The common carotid on the right side was ligated in 24 cases; the carotid and subclavian at different times, in 9. This double operation gave the best results, improvement in all 9 cases. Of 120 cases of operated aneurysm collected, only 2 lived

over 3 years after operation. Many detailed symptoms and case-histories follow. [M. O.]

23.—Kuhn explains diagrammatically the mechanism of typical fracture of the radius. [M. O.]

CENTRALBLATT FUER CHIRURGIE.

May 3, 1902. (No. 18.)

1. Resection of the Liver by Means of a New Hemostatic Instrument, (The Steam-Saw of Professor Smeguirew). KOSLENKO.

1.—Koslenko contributes a description of the results which he has obtained with a new hemostatic instrument, in experimental operations upon the livers of dogs. He states that the instruments which are employed at present which depend for their hemostatic properties upon the exit of steam through tubular contrivances, offer the following disadvantages: (1) The steam emerges from the tube under a certain pressure and, as it emerges, it tears away small particles of the already scorched parenchymatous tissue and thus favors the continuance of the hemorrhage. (2) The parenchymatous organ must first be resected and then hemorrhage arrested by directing the steam upon the bleeding surface, a procedure which is complicated and which prolongs the operation. The patient loses more blood and an assistant is required for manipulating the steam. (3) The steam which emerges from the aperture scorches the contiguous areas of parenchyma as well. The steam-saw constructed by Smeguirew represents a medium-sized saw, which is hollow from the handle to the tip. The handle of the instrument communicates with the steam generating apparatus, the steam itself being conveyed through the instrument by means of a rubber tube; between the teeth of the saw there are small openings, permitting the escape of the steam. When employing the saw it is essential to perform the necessary movements slowly, in order that the escaping steam may exert its hemostatic properties upon the bleeding area. Therefore both functions, namely the division of tissue and hemostasis, go side by side; the steam centers into each side of the furrow produced by the resection, without scorching the hands of the assistants. The author reports 3 cases in which he employed the instrument and arrives at the following conclusions: The steam-saw is an instrument, by the aid of which we can resect the liver in an optional direction. In case larger vessels are encountered, we can interrupt the hemorrhage, either by directing the steam from the rubber-tube upon the bleeding vessel, or ligating the vessel itself (the sutures do not cut) in the furrow caused by the instrument. There was no secondary hemorrhage after the resection, and the wound healed by granulation with subsequently well-developed connective tissue. [M. R. D.]

CENTRALBLATT FUER INNERE MEDICIN.

April 19, 1902.

1. Experiences with the Preservation of Sediments for Clinical Microscopy. GUMPRECHT.

1.—Gumprecht insists that Rohnstein (in his article recently abstracted from this journal) has reported an old method as if it were new. Much the same method has been used before by others, and practically exactly the same procedure was reported in the *Centralblatt* by Gumprecht in 1896. The formol method was afterward criticised by May, in that crystals which were likely to be mistaken for fat or tyrosin often formed. This, Gumprecht says, can be prevented by washing the sediment once before preserving in formalin. In carrying out the method he uses a hand-centrifuge, which should not revolve more than 3,000 times per minute and should not be worked too rapidly. If the sediment does not go down rapidly, a little alcohol may be added; but this should not be allowed to act for more than a very few minutes. As a fixative he uses chiefly formol, commonly in one to 2 per cent. solution. Osmic acid is an excellent fixative, but it is expensive, and its vapor is very

irritating. Alcohol is a fair fixative. Corrosive sublimate, in 5 per cent. solution, has advantages and disadvantages. The sediment forms rapidly, and does not readily undergo putrefaction; but it is exceedingly difficult to stain afterward, even if washed with iodine. It is also difficult of digestion, which is important if tubercle bacilli are to be looked for. When gastric contents are to be preserved, he merely covers them with formol; in this way he has kept them for as long as 4 years. Stools he preserves in alcohol—also without any previous preparation. Leukemic blood he has washed with salt solution, then with concentrated sublimate and kept in formol. The results were unsatisfactory. Bone-marrow he presses from a rib and centrifugates in water or salt solution, to free it from fat. It then furnishes a brilliant demonstration material for Charcot's crystals. Alcohol is the best preservative of this. He preserves urine in various ways. If only crystalline sediments are desired, they are centrifugated off and preserved in chloroform. He notes that the rarer forms of triple phosphates may be readily prepared artificially by adding ammonia to the urine. Oxalic acid is very difficult to preserve, as is uric acid. Casts and epithelium he centrifugates, decants the overlying urine and adds formol. The sediment changes but little if it is often shaken; but if it is allowed to stand for a long time without being touched, it forms unrecognizable masses with but few well-preserved casts and cells. The formol method should be reserved for organized sediments. It is then useful for clinical didactic purposes, but is not ideal. [D. L. E.]

May 3, 1902.

1. The Measurement and Determination of the Position of Foreign Bodies and of the Internal Organs by Means of Radioscopy. L. FERRANNINI and D. PIRRONI.

1.—The authors describe a method (which cannot be given in detail), by means of which, they say, after placing stones of various sizes in the bodies of dead animals, they were able to determine the exact size and form of the stones and their position in relation to the surface of the body. The most important part of their method is the fact that it can be carried out without complicated apparatus. They consider it very important in making surgical diagnoses after injury and after the entrance of foreign bodies. [D. L. E.]

May 17, 1902.

1. Urethrogenous Infection of the Urine. BERTHOLD GOLDBERG.

1.—The author discusses the question as to whether the infection that occurs in catheterization is due to contaminated catheters or to the bacteria which are already present in the genito-urinary tract. He has carried out some experimental investigations. After carefully disinfecting the region of the external meatus and using entirely sterile instruments, he carried out flushings of the anterior urethra and then made cultures from various portions of the urethra, under very careful antiseptic precautions. In 12 persons, who had no infection of the urinary passages, the cultures were always negative. Disinfection therefore had been complete in these cases. In 5 persons who already had chronic infection of the urinary passages, the cultures were negative in one instance and positive in 4. These patients had urinated immediately before disinfection of the urethra, and had, therefore, scattered numerous pathogenic organisms along the urethral tract. Two patients who had no infection of the urethral passages yielded positive cultures. One of these had urethral bacteriorrhea; the other had an extremely severe balanoposthitis. In the 20 patients, as a control, the genitals alone were cleansed. Bouillon cultures were positive under these circumstances. The author believes that he has demonstrated that the normal urethra can be disinfected, and that infection of the urinary passages through the urethra can be prevented. [D. L. E.]

May 24, 1902.

1. On the Measurements of the Shoulder in Normal Persons, and the Diagnostic Value of the Same in Paralyzes or Neuroses of the Shoulder. J. CASPARIE and H. ZERHUISEN.

1.—The authors first note the very indefinite means which we have of determining the degree of functioning power of the shoulder muscles and the size of the shoulder. They then describe their own method, which is one depending upon a number of complicated formulæ and impossible to reproduce in brief space. [D. L. E.]

ZEITSCHRIFT FUER HEILKUNDE.

May, 1902. (Volume 23, No. 5.)

1. Glycosuria and Alimentary Glycosuria in Insane Patients. EMIL RAIMANN.
2. Congenital Pulmonary Stenosis. JOSEPH BURKE.
3. The Diagnosis of Tetany in Infancy.

F. GANGHOFNER.

1.—If, after an ingestion of sugar, over 0.2% of sugar is found in the urine, **alimentary glycosuria exists**. After the inability to assimilate sugar becomes absolute, true glycosuria results. Out of 103 insane patients examined, spontaneous glycosuria only occurred in 2. Transitory glycosuria was much more frequent, being noted in 65 cases. A high sugar assimilation limit was observed in idiocy, mania, paranoia, epilepsy and alcoholism after delirium tremens; a low limit in melancholia, senile dementia, progressive paralysis and delirium tremens. Raimann concludes that the grade of sugar assimilation is, as a rule, the expression of a general function, differing in individuals. The assimilation of sugar is influenced by many external and endogenous poisons. No other conclusions are as yet permissible. [M. O.]

2.—Burke, who has collected 44 cases of **congenital pulmonary stenosis**, reports 3 more cases in detail. The origin of the condition is best explained by Kussmaul's theory of the correction of stasis. Congenital pulmonary stenosis is often accompanied by other cardiac anomalies, of which it is the cause. While it is possible that the accentuation of the second pulmonic sound with pulmonary stenosis may be caused by a patent ductus Botalli, it is more probably due to a patulous foramen ovale. In later stages it is probably caused by stasis. When a congenital narrowing of the aorta accompanies the condition, pulmonary tuberculosis often occurs. This was present in 13 out of 16 cases with a narrow aorta; while in 31, with a wide aorta, no tuberculosis was found. [M. O.]

3.—Increased mechanical irritability in the facial and other nerves is an important sign of latent **tetany in infants**, for outspoken typical tetany is rare under 2½ years. An increase in galvanic irritability is not so constantly present. Out of 49 cases of tetany in infants, the case-histories of which follow in detail, 49 showed increased mechanical irritability; 41 showed increased electrical irritability; 33 showed laryngospasm; 28 gave the Trousseau phenomenon; 18 had eclampsia, and 8 had manifest tetany. While the electrical irritability varies with the nerve tested, mechanical irritability is almost constant. Brain lesions must be differentiated from tetany, hysteria and other neuroses not being found during infancy. The cause of the condition is unknown. Ganghofner considers mechanical and electrical irritability important in the diagnosis of tetany. [M. O.]

THE EDINBURGH MEDICAL JOURNAL.

June, 1902. (Vol. XI, No. 6.)

1. Hour-Glass Stomach. B. G. A. MOYNIHAN.
2. What is Pure Chloroform? THOMAS D. LUKE.
3. Treatment of Chronic Suppuration in the Frontal Sinus. H. LAMBERT LACK.
4. Tumors of the Upper Jaw. WILLIAM H. BATTLE.
5. Some Paralyzes of the Arm and Hand.

H. CAMPBELL THOMSON.

1.—Moynihan gives the causes of **acquired hour-glass stomach as follows**: (1) Perigastric adhesions; (2) ulcer, with local perforation and anchoring to the anterior abdominal wall; (3) chronic ulcer generally at or near the middle of the organ; (4) malignant disease. The operations that are advised are (1) gastropasty; (2) gastrogastrostomy or gastro-anastomosis; (3) gastro-enterostomy; (4) partial gastrectomy; (5) pyloroplasty or gastrolysis. The operation will depend upon the condition found. If the pouches sag downward and almost touch below the isthmus, a gastro-gastrostomy may be performed. If the pyloric pouch be small and the cardiac large, a gastro-enterostomy is advised. Gastropasty is preferred if a narrow isthmus is found without thickening or adhesions. If an ulcer adherent to the abdominal wall is found, and on separating this a fistula be disclosed, the thickened edges of the ulcer may be excised and gastropasty performed. If a malignant growth forms the waist of the stomach, a partial gastrectomy can be done. If the growth is too extensive for removal and the stomach has no healthy wall allowing for an anastomosis, the palliative operation of jejunostomy may be required. If both pouches need draining, a double gastro-enterostomy may be performed, or a gastropasty followed by gastro-enterostomy.

[T. M. T.]

3.—Lack says that operation in **chronic suppuration in the frontal sinus** may be required for (1) pain; (2) deficient drainage; (3) bulging of the cavity, or a discharging external sinus; (4) symptoms of cerebral trouble; (5) general ill-health. The treatment of chronic suppuration in the frontal sinus is (1) if suppuration is suspected, at first intranasal. This consists in (a) securing free access to the lower end of the infundibulum by removing the anterior end of the middle turbinate, part of the uncinat process, and opening up the anterior ethmoidal cells, and at the same time removing any polypi or other obstruction that may be present, followed by simple nasal irrigations for a few weeks; and (b) in favorable circumstances this may be followed by cautious attempts to wash out the sinus through its natural opening, but on no account should an attempt be made to enter it forcibly from the nose; (2) if this method fails and serious symptoms are present, the frontal sinus should be opened externally and should be obliterated—(a) when it is not very large, for then the cure is certain and the resulting deformity is slight; (b) when the posterior wall is carious or perforated; (c) when cerebral symptoms are present; and (d) even when the sinus is large, if the patient does not object to run the risk of deformity; (3) in all other cases a free opening should be made into the nose, and **free drainage maintained until all suppuration has ceased**; (4) operations providing external drainage only are inefficient, and operations allowing of intranasal drainage for a limited time only are both inefficient and dangerous. [T. M. T.]

ARCHIV FUER KINDERHEILKUNDE.

1902. (Volume 33 Nos. 3-6.)

7. The Erection and Equipment of Institutions for Infants. ARTHUR SCHLOSSMANN.
8. Experiments upon Cod-Liver Oil With Phosphorus. ALFRED HEIDUSCHKA.
9. Practical Points in Infant Feeding. FLACHS.
10. The Frequency and Causes of Death in Institutions for Diseased Infants. A. SCHLOSSMANN and H. PETERS.
11. Genuine Atrophic Kidneys in Infancy. IDA DEMOCH.
12. The Size of Single Meals for Breast-fed Infants. H. PETERS.
13. A Further Contribution to Infant Feeding. ARTHUR SCHLOSSMANN.
14. Tracheotomy and Intubation since the Antitoxin Treatment of Diphtheria. F. SIEGERT.
15. Rupture of the Ductus Arteriosus Botalli. JOSEPH ESSER.

16. The Growth of Colon Bacilli in Cow's, Goat's, Asses' and Human Milk. OLIMPIO COZZOLINO.

17. The Care of Infants in Institutions.

CORNELIA de LANGE.

7.—Since many general hospitals do not admit children under 2 or 3 years of age, special hospitals for children are necessary. But the mortality in infant hospitals is very high. Schlossmann describes the building, equipment and cost of the Dresden Children's Hospital. An effort was made to decrease the mortality by good care and, when possible, mother's milk. He advises that the hospitals take women with children and so increase the quantity of their milk, by correct diet, that they may nurse other children beside their own. Seven nurses suffice for 42 children. The care of infants depends upon the experience of the nurses; and infections can only be prevented by strict cleanliness. Schlossmann notes as a result that many more children are brought to hospitals nowadays than formerly, and thus more lives are saved. [M. O.]

8.—Heiduschka reviews the literature of cod-liver oil with phosphorus and reports experiments showing that the usual mixture, oleum morrhue 100 and phosphorus 1/100, will keep. For analyses show that at the end of a week the greatest loss of phosphorus found was 21%, so that over three-quarters of the phosphorus was still in the mixture. [M. O.]

9.—As mother's milk is always best for infants, there should always be a maternity hospital in connection with a children's hospital. Flachs describes the diet of the nursing mothers, the amount of milk produced, its composition and its excellent effect upon other children beside the mother's own infant. [M. O.]

10.—Of the 207 sick infants under one year of age, treated in 1901, 53 died, a mortality of 25.6%. The 93 well children who came with their mothers, these mothers furnishing milk for the rest, continued well without exception. Ten infants died in 24 hours, 10 more in 48 hours and 5 more in 72 hours after admission. Eight others gave an almost hopeless prognosis. Twenty-three others died in spite of treatment. The 56 case-histories follow in detail. While infants do well for some weeks after admission, the longer they remain after that the worse becomes the prognosis. The younger the infant, the higher is the mortality. Therefore infants should be discharged as soon as possible and as well as possible. Though the infants who entered the Dresden hospital were in a worse condition than those of the Charité Hospital, Berlin, the mortality was one-half less. This was due to good hygiene, care and the mother's milk. Yet 23 infants died in spite of all this. [M. O.]

11.—Democh reports a case of granular kidneys in a boy of 2 months, with convulsions, cough and edema. The spleen was somewhat enlarged and albumin, granular and epithelial casts were noted in the urine. There was slight hypertrophy of the left ventricle. Death followed on the third day. The autopsy showed anasarca, hydropericardium, edema of the lungs, pneumonia, congestion of the liver and spleen, ascites and atrophic kidneys, showing chronic nephritis, with small cysts and thickened bloodvessel walls. The right kidney was more affected than the left. Democh believes this to have resulted from parenchymatous nephritis with chronic gastro-enteritis, symptoms having existed about 3 weeks. This condition is very rare in infancy and childhood, but 2 other cases having been reported in infants. [M. O.]

12.—Peters has collected statistics showing how much milk breast-fed infants take at each feeding. He divides his investigations into 3 tables, containing the statistics of 13 well infants, 12 premature infants and 4 infants who were convalescent from some illness. As a rule all infants did well upon breast milk, even though the amount taken varied constantly. So great was this variation that no limit could be set to the stomach of an infant of a certain age or size. All infants ingested more than was considered sufficient. Nor is it possible to limit the amount

taken by limiting the length of nursing; for some infants nurse slowly, others fast. Most infants take but little during the last minutes of nursing. Peters lays stress upon weighing infants before and after nursing. [M. O.]

13.—Schlossmann has made new experiments to determine the facts about assimilation in breast-fed infants. He weighed the infants daily, found the amount of breast milk taken and its energy value estimated calorimetrically. The case-histories of several infants follow. His tables show mother's milk to contain 3.47% fat, 7.14% sugar and 0.26% proteids. His investigations show that, while an infant needs but a trifle more albumin than an adult, he needs much more fat and carbohydrates. While interesting, his experiments have led to no definite conclusions. [M. O.]

14.—Siegert has collected statistics upon tracheotomy and intubation in diphtheria since the antitoxin treatment was begun, from 93 European hospitals. Out of 22,615 cases of laryngeal diphtheria, upon which operation was performed, the mortality was 34.28% as compared with 60.38% before the antitoxin treatment. Sixty-four hospitals only do tracheotomy; out of 11,104 patients, 3,808 died, 34.29%. In Halle the mortality was only 15%. Ten hospitals do intubation primarily; out of 3,830 patients, 1,361 died, 35.54%. This failed to give relief in 1,156, upon whom tracheotomy was done secondarily. After giving detailed statistics, Siegert concludes that in hospitals tracheotomy and intubation give approximately the same results; to reach this low mortality-rate, intubation will need primary or secondary tracheotomy; replacing tracheotomy by intubation does not change the mortality; intubation makes tracheotomy superfluous in two-thirds of all cases; finally, only the combination of both procedures will give the best result. The advantages and disadvantages of intubation and tracheotomy follow. [M. O.]

15.—Esser reports 2 cases of ruptured ductus Botalli, one in an infant born asphyxiated, who died several hours after birth; the other born with sclerema, dying on the sixth day. Both patients showed rupture of the ductus Botalli at autopsy. Hemorrhages were found in both lungs, with signs affecting the general circulation. After describing the mechanism of this accident diagrammatically, Esser shows how irritation of the vagus causes disturbances of respiration, etc. [M. O.]

16.—Cozzolino describes a series of experiments upon the growth of colon bacilli in cow's, goat's, asses' and human milk. He concludes that this growth is very different in human milk from what is noted in cow's, goat's and asses' milk. While human milk limits the growth during 14 to 48 hours, it grows luxuriantly in the other milks. After 48 hours the difference is less marked. In this manner Cozzolino explains the virulence of colon bacillus infection in artificially fed infants. [M. O.]

17.—De Lange describes the care given infants in an Amsterdam institution to which unmarried mothers with infants are admitted. When the infant is 6 months old, the mother goes to work, while the child is kept until 2 years old. A description of the institution, which contains 23 cribs, follows. In 4 years 121 infants were treated, 29 of them dying, 7 in the second month. Several case-histories follow to show how well the infants were, in spite of the food. The 29 fatal cases follow in full. In but 14 cases was death due to hospital care. These results seem good considering the disadvantages. [M. O.]

ARCHIVES OF PEDIATRICS.

May, 1902. (19th. Year, No. 5.)

1. The Progressive Principle in Rational Infant Feeding.
HENRY L. COIT.
2. The Feeding of Children During their Second Year.
THOMAS S. SOUTHWORTH.
3. Spindle Cell Sarcoma of the Thorax in a Child.
LOUIS FISCHER.

4. A Case of Primary Intestinal Tuberculosis.

M. NICOLL, JR.

5. Diphtheria of the Conjunctivæ Treated with Antitoxin.

M. EMMET HOLT.

1.—For the progressive feeding of infants artificially, Coit advises (1) a decimal solution of sugar, which is made by dissolving one ounce of sugar of milk in enough hot water to make 10 ounces. (2) Decimal cream No. 1, which consists of the top 6 ounces from one quart of milk that has been bottled 15 hours, to which 3 ounces of water have been added. This mixture contains 10% of fat. (3) Decimal cream No. 2, which consists of the top 11 ounces from one quart of milk that has been bottled 15 hours. This cream also contains 10% of fat. He then gives 4 formulæ to illustrate the proportions of each ingredient to be used in the artificial feeding of a child. [J. M. S.]

2.—Southworth describes the articles which should be included in the diet of a child between one and 2 years old. At 7.30 A. M., the child should have its breakfast, which should include a bottle of milk; at 11 A. M., a bottle of milk with a crust of bread or zwieback; at 2 P. M., dinner; at 6 P. M., supper, including a bottle of milk; and at 10 P. M., a bottle of milk. The following articles may be included in the diet. Soft boiled eggs, cereals, crust of bread, zwieback, crackers, oranges, prunes, baked apple, spinnach, fresh green peas, asparagus tips, tender string beans, stewed celery, tender boiled onion, baked potato, beef juice, mutton or chicken broth, scraped meat, roast beef, roast mutton and mutton chop. Tea, coffee and beer should be given under no circumstances. [J. M. S.]

3.—Fischer reports the case of a child, aged 8 years, who presented a tumor on the front of the thorax. He complained of constant dyspnea and was extremely cyanosed and very anemic. The heart was dislocated to the right side. An attempt was made to remove the tumor, which was a spindle cell sarcoma, but the child died shortly after the operation. [J. M. S.]

4.—Nicoll reports the case of a child, aged 2 years and 3 months, who died from primary intestinal tuberculosis. There was a single tuberculous ulcer in the ileum, without evidence of tuberculosis elsewhere except in the lymphnodes of the neighborhood. Tubercle bacilli were found in the ulcer and in the mesenteric lymphnodes. [J. M. S.]

5.—Holt reports a case of diphtheria of the conjunctiva in a child, 6 months old. Diphtheria bacilli were demonstrated in the membrane. Two thousand and four hundred units of antitoxin were given combined with ice compresses and atropine instillations. The patient recovered promptly. [J. M. S.]

THE PRACTITIONER.

May, 1902.

1. Observations on the Clinical Course of Pulmonary Tuberculosis as Affected by Modern Methods of Treatment. R. W. PHILIP.

2. Acute Anterior Poliomyelitis: Infantile Paralysis and Acute Atrophic Paralysis of the Adult.

R. T. WILLIAMSON.

3. A Case of Removal of the Gasserian Ganglion by Doyen's Method (Modified). WILLIAM ROSE.

1.—Philip presents a paper dealing with observations on the clinical course of pulmonary tuberculosis as affected by modern methods of treatment. He limits his discussion to the question of temperature and states that prolonged observations on the clinical course of the disease treated on open air lines during the past 10 years have demonstrated the necessity of changing our views upon this subject. As to the methods of taking temperature he believes that both oral and axillary readings are satisfactory and to be preferred to rectal. He presents 4 propositions well attested by a large number of illustrative case reports. These are: (1) The majority of cases of pulmonary tuberculosis treated in the open air shows a remarkably rapid return of temperature to the normal. (2)

In a certain percentage of cases the fall of temperature does not occur so rapidly. Even if delayed for several months an ultimate return to the normal is frequent if proper treatment be maintained throughout. (3) The temperature may remain almost continuously normal even when abundant signs are present suggestive of the existence of considerable disease, in a state far from latent. (4) When the temperature is disturbed either continuously or recurrently, such disturbance should not be attributed vaguely to tuberculosis. A superadded cause should be sought and may commonly be found. Philip's paper is accompanied by a number of diagrams representing the pulmonary involvement of the cases quoted and a considerable number of temperature charts. [T. L. C.]

2.—Williamson discusses acute anterior poliomyelitis. He states that a review of the symptoms, pathological anatomy and etiology furnishes many points in favor of the disease being due to a toxin produced by the action of a micro-organism. The febrile symptoms at the onset, the relation of the changes to the anterior arteries of the cord, the vascular changes, the occasional occurrence of epidemics and the result of experiments on animals, all appear to suggest this explanation. The exact nature of the micro-organism remains to be discovered. Williamson's paper includes a summary of a number of methods of treatment of the disease in its various stages, and a valuable bibliography is appended. [T. L. C.]

3.—Rose reports a case of removal of the Gasserian ganglion by a modification of Doyen's method. In this operation, the writer states, he has followed closely the account of Doyen's method as given by Tiffany, and with some slight modifications he is satisfied with it. His comments upon the operation included the statement that the incision made is probably a better one than that which he has generally adopted in attacking the ganglion or the roots of the nerve; the zygoma should be divided as far backward and forward as possible. Provision should be made for wiring it subsequently. Doyen merely advises division of the coronoid process and turning it up. This involves blocking up of the wound to some extent by the doubled-over tendon which is most undesirable. The muscle will henceforth be paralyzed, and it is better to remove both it and the coronoid. Rose believes that much of the limitation of the movements of the jaw seen after these operations is due to the contraction of the temporal, and therefore he never hesitates to remove it if desirable. He states that Doyen's idea of first securing the trunks of the inferior dental and lingual nerves is a mistake because much time is unnecessarily wasted. This operation may fairly be claimed to be an outcome of Rose's own method of attacking the ganglion through the base of the skull. The trephine opening was made just outside the foramen ovale and a small extra portion of bone was removed. At this point the operator placed the trephine opening at a more convenient spot, just above the pterygoid ridge on the great wing of the sphenoid, and then nibbled away the bone as far as the foramen ovale. In this way a much better approach to the ganglion is obtained. Rose compares this method to the various others which have been suggested, and he believes that it offers manifest advantages. [T. L. C.]

REVUE DE MEDECINE.

May 10, 1902. (21me. Année, No. 5.)

1. The Treatment of Epileptic Delirium by Rest in Bed.

E. MARANDON de MONTYEL.

2. Eruptions and Edemas Produced by the Deleterious Juices of Trees that Yield Lac. J. REGNAULT.

3. Rhythmic Movements of the Head in Patients Suffering from Aortic Disease. CH. VALENTINO.

4. Psychic Vertigo. N. VASCHIDE and C. VURPAS.

5. Autochthonous Dislocations of the Heart.

A. FERRANNINI.

1.—In 19 cases of delirium in epilepsy treated by de Montyel, only one was benefited by rest in bed. In one case

there was some benefit obtained so far as the modification of the attacks of delirium was concerned, but the crises were of longer duration. In another case the first trial of treatment by rest in bed was productive of amelioration of the condition, but on subsequent trials the benefit was not reproduced. In another case important modifications occurred in the crises of delirium which justified the doubts that arose concerning the effect of the treatment, the crises being more severe and lasting a longer time. In 10 cases the result of rest in bed was absolutely negative upon the delirious attacks, and in 4 or 5 cases rest in bed undoubtedly made the attacks worse. These facts led the author to the conclusion that rest in bed is of no value in the treatment of epileptic delirium. But, since in one case benefit was derived from the treatment, whenever he finds a case of the delirium of epilepsy, he determines the duration, the intensity and the symptomatology of the crises and then puts the patient to bed during the next attack. If any unfavorable result is obtained by this method, he gives it up and returns to the well-known therapeutic measures that are much more serviceable to the patient.

[J. M. S.]

2.—For a long time papulovesicular eruptions have been described among the laborers who work in lac, and particularly among those who come in contact with the fresh juice of the trees furnishing this product. The patent who has been exposed to the deleterious juices of these trees may present eruptions, edematous swellings or both of these lesions combined. Régnault has endeavored to isolate the obnoxious principle of these trees. While he has not been able to obtain this substance, he concludes that it is analogous to, if not identical with, the toxicodendric acid which is found in *Rhus toxicodendron*. He reports 6 cases. [J. M. S.]

3.—The sign of Musset consists in rhythmic shaking of the head, synchronous with the pulse. Valentino describes 14 cases of this sign, one of which occurred in a case of pleurisy, 8 in cases of aneurysm of the arch of the aorta and 5 in cases of aortic insufficiency. The observation of this sign in a case of pleurisy is not incontestably established. On the other hand, aortic insufficiency and aneurysm of the arch of the aorta are the 2 conditions that produce it. It appears as though the sign of Musset was due to the diastolic reflux of the blood in the 2 conditions named. [J. M. S.]

4.—Vaschide and Vurpas report a case of psychic vertigo. The condition they believe is a true obsession, similar to the other varieties of obsession, such as agoraphobia.

[J. M. S.]

5.—Ferrannini first described autochthonous dislocations of the heart in 1897. Since then he has satisfied himself that these dislocations exist independently of the common causes, such as the well-known modifications of the heart itself or of its means of support in cardiovascular diseases or topographical anomalies of the surrounding organs. The cause of these autochthonous dislocations is in all probability a congenital dystrophy of the tissues of support and suspension of the heart. Setting aside other morphological and structural anomalies that possibly coexist in the thorax and the abdomen. These dislocations may be vertical or transverse or there may be a condition of cardiopptosis. These autochthonous dislocations of the heart differ semiologically from simple exaggerated mobility of the organ. They may be considered as clinical entities or simply as syndromes, according to the condition of each patient. [J. M. S.]

LA PRESSE MEDICALE.

May 7, 1902. (No. 37.)

1. The Treatment of Aneurysm of the Arch of the Aorta. A. GUINARD.
2. Human Actinomycosis in France. A. PONCET and L. BERARD.
3. The Treatment of Acute Peritonitis with Appendicitis. ALFRED MARTINET.

1.—Guinard, contrary to the opinions recently expressed by Tuffier, believes that operation upon the aneurysm, in cases of aneurysm of the aorta, is only justifiable in exceptional cases. He has operated 12 times in 10 years, for aneurysms, only 2 of them being aneurysms of the arch of the aorta. He performed simultaneous ligation of the common carotid and subclavian arteries on the right side. The other cases were aneurysm of the base of the neck. But 2 resulted fatally. Chloroform is always well borne. He considers this operation simple and trusts that no one will make further attempts to perform the radical and dangerous operation proposed by Tuffier. [M. O.]

2.—See Philadelphia Medical Journal, May 10, 1902, page 816.

3.—Martinet reviews the conclusions reached by Byron Robinson in a recent number of the *Therapeutic Gazette*, advising anatomical and physiological rest in acute peritonitis with appendicitis. He gives no liquids or food by the mouth. [M. O.]

May 10, 1902. (No. 38.)

1. Metameric Purpura. HENRI ROGER.
2. The Treatment of Fibrous Stenosis of the Larynx. COLLINET.
3. The Aseptic Treatment of Skin Diseases. L. V. LEREDDE.
4. Adrenalin in Ophthalmology. J. VIGNES.

1.—Roger reports a case of metameric purpura, which greatly resembled variola. The rash appeared 2 days after headache, pain in the back and menstruation; first in the groins, then in the axillæ and about the joints. The eruption of small purpuric spots was distinctly symmetrical. There was also a history of exposure to variola; but no pustules developed. The eruption became general and lasted altogether less than 2 weeks. As the leukocytes were normal in number and character, the diagnosis was not variola. The distinctly metameric distribution of the eruption was noticeable. [M. O.]

2.—Fibrous stenosis of the larynx is rare. It may be prevented by local treatment when laryngitis, burns, fracture, intubation, wounds, etc., of the larynx occur. The length of the period during which the tube is left in the larynx may have some effect on the production of fibrous stenosis. The tube should be changed as little as possible on this account. Stenosis often follows tracheotomy. The palliative treatment consists in tracheotomy. The curative treatment is dilatation or suppression of the stricture. Dilatation may be done before or after tracheotomy. In some cases endolaryngeal operation may be performed. Fibrous stenosis of the larynx is often refractory to treatment and frequently recurs. Patients must be watched for some time after treatment. [M. O.]

3.—Not only in the treatment of wounds, but in the treatment of skin diseases a dry or almost dry antiseptic application is indicated in impetigo, folliculitis, etc., in fact in all suppurative infections. The dressing should be aseptic and the application antiseptic. [M. O.]

4.—In hyperemia of the conjunctiva adrenalin causes a return to normal condition and a diminution of lachrymal secretion. It is also recommended in iritis with ciliary injection, in glaucoma and to prevent hemorrhage in operation. [M. O.]

May 14, 1902. (No. 39.)

1. Intermittent Melancholia. GILBERT BALLET.
2. Treatment of Facial Neuralgia. CHIPAULT and PLICQUE.

1.—Ballet presented a woman of 56, with intermittent melancholia. She was married at 25 and had had 8 children. She suffered from frequent headaches. Her first attack occurred 2 weeks after the birth of her second child and lasted 5 months. This recurred after the birth of the fourth child and again after the fifth child had arrived, lasting this time 8 months. After the seventh child was born, when she was 37 years old, she had an attack which lasted 17 months. She then remained well up to her 55th year.

when 5 short attacks appeared in 5 months, lasting 3 or 4 days only. The condition comes on suddenly, associated with pregnancy, menstruation, menopause, etc. It ceases just as suddenly, the depression disappearing. These patients do not attempt suicide, in contradistinction to simple melancholia. Besides, each attack is but a repetition of former seizures. It is a periodic psychosis. There is also an intermittent mania; in fact the 2 may alternate, causing alternate, double or circular insanity. The family-history shows a nervous ancestry. Isolation is advised in certain cases. The bromides and hydrotherapy are indicated; but best of all is moral treatment. [M. O.]

2.—If facial neuralgia is hysterical, electricity and isolation are advised; if epileptic, epilepsy should be treated with bromides; if due to arteriosclerosis, milk diet is necessary; if syphilitic, specific treatment cannot be relied upon. Aconite, belladonna, chloral, antipyrine, etc., are rarely of much service. Electricity gives splendid results in some cases. Surgical intervention may become necessary, direct or indirect. The former may be resection of the nerve or ganglion; the latter, resection of the superior cervical sympathetic ganglion. Even after operation, "tic" may recur. [M. O.]

May 17, 1902. (No. 40.)

1. Botryomycoma. G. CARRIERE and G. POTEL.
2. Expert Testimony. L. NATTAN-LARRIER.
3. Superficial Asepsis in the Treatment of Skin Diseases. L. V. LEREDDE.

1.—Carrière and Potel have seen 2 cases of botryomycoma. In one, a small tumor followed inside of a month after an injury to the index finger. This was extirpated by operation and on examination revealed so-called botryomycosis. The second patient gave an almost identical history. Histological examination of the tumor after removal again showed a fibro-adenoma arising from the sweat glands. The only bacteria found were staphylococci. [M. O.]

2.—Nattan-Larrier, who reviews a recent New York murder trial, speaks in favor of appointing a permanent commission to take expert testimony alone and to draw up a statement, which shall contain nothing contradictory, for the benefit of the jury. [M. O.]

3.—In the aseptic treatment of skin diseases, all infected cavities should be opened, and all crusts, scars, etc., removed, just as soon as they form. Vesicles, bullæ and pustules should be opened with sterilized scissors. Crusts can be removed by a 2% solution of sodium bicarbonate or a 1% resorcin solution applied directly, either in a spray or moist dressing. A salve or warm bath may be of service in some cases. Afterward a moist or dry dressing must be left in place. In deep lesions the hair must be removed. When erosion or ulceration occurs, moist dressings are especially indicated. [M. O.]

A Case of Hyperchondroplasia.—Méry and Babonneix report a case of hyperchondroplasia in a girl of 11½ years, with long, thin bones in all extremities. The metacarpal and metatarsal bones and the phalanges are all much prolonged, while the first phalangeal articulation keeps the fingers stiffly flexed. The thumb alone is extended. There is also scoliosis, and several tumors are noted on the bones, at the junction of epiphysis and diaphysis. These findings were confirmed by radioscopy. The pathogeny and etiology of the affection are unknown. No specific history was obtainable. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 10, 1902.) [M. O.]

Neoplastic Stricture of the Esophagus. In the *Annales de Chirurgie et d'Orthopédie*, June, 1902, Bilhaut and Lombard report a case of esophageal stricture, in a woman of 67, ill 2 years. Dysphagia increased, with cachexia, and the diagnosis of esophageal cancer was made. Gastrostomy was performed and the patient died of spontaneous hemorrhage from the esophageal tumor, on the eleventh day afterward. The autopsy confirmed the diagnosis, a large circular tumor being found compressing the esophagus just above the cardiac orifice of the stomach. [M. O.]

Society Report.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

FIFTY-SECOND ANNUAL MEETING.

ALLENTOWN, SEPTEMBER 16, 17 and 18.

The State Medical Society convened at the Lyric Theatre, Allentown, the President, Dr. Francis P. Ball, Lock Haven, in the chair. After prayer by the Rev. S. G. Wagner, D. D., Allentown, and the presentation of the register of delegates, addresses of welcome were delivered by the Hon. F. E. Lewis, Mayor of the City of Allentown, and Dr. E. H. Dickenshied, President of the Lehigh County Medical Society. The remainder of the morning session was devoted to the reports of committees, the election of members to serve on the nominating committee, and the general business of the society.

TUESDAY AFTERNOON, SEPTEMBER 16.

Dr. P. J. Kress, Allentown, read a paper on the ability of the eye to withstand effects of injury and disease. Weak eye resistance is hereditary, due to degeneracy, poorly developed condition of the trophic center, hereditary syphilis, alcohol, many diseases, bacteria and their toxins and frequently results from chronic and atrophic rhinitis.

Dr. Walter B. Weidler, Lancaster, reported a case of bitemporal hemianopia, in a woman of 41, and a case of optic cellulitis following Bowman's operation with the introduction of a leaden style.

Dr. Edward A. Shumway, Philadelphia, reported a case of severe burn of the eye and face by nitrite of amyl, resulting in the loss of the eye. The patient was an epileptic, 25 years of age, who used inhalations of nitrite of amyl when he felt an attack coming on. At the time the injury was received the attack came on suddenly, and the patient, in his endeavor to inhale the drug quickly, accidentally threw a portion into the eye. The cornea sloughed and the eye was destroyed. The tissues around the eye were also considerably burned. A dense cicatrix resulted and the eye was much shrunken. The eye was enucleated and a plastic operation performed to remove the cicatrix and make room for an artificial eye. According to Wood, nitrite of amyl has no destructive or devitalizing influence upon the tissues. In this case the drug was kept in a bottle which was frequently exposed to light, and decomposition had taken place, there being found a large amount of nitric acid in the solution. The author recommends the administration of nitrite of amyl in pearls which will prevent accidents like this and decomposition will not take place if they are not kept for a long time and exposed to light.

Phlyctenular keratitis complicating smallpox with remarks on the ocular lesions of variola was the title of a paper read by Dr. Edward Stieren, Pittsburg. Smallpox lesions occurring on the conjunctiva do little harm, passing through the ordinary stages, but when situated on the cornea the condition is a much more serious one. The author reports a case of phlyctenular keratitis complicating smallpox.

Dr. J. L. Borsch, Philadelphia, read a paper on corneal tattooing. The author describes the technique of the operation. The coloring matter is made from the finest quality of Chinese ink, which is rubbed up with a solution of soda mint 1/5000 until the consistency is a little thicker than that of ordinary ink. The eye is anesthetized and the patient instructed to look straight ahead. The ink is worked in by slightly pricking the eye with the point of a needle. After the operation a solution of boracic acid

is allowed to flow over the eye. The eye is made to correspond to the eye of the sound side, imitating the striations. The author has obtained excellent results from this operation in corneal opacities. Weir thinks tattooing highly artistic work. Edwards is afraid the results are only temporary, the pigment being removed by the lymph-channels, and will cause irritation of the eye. Borsch, in closing, said the use of soda mint was the secret of its success, explaining the permanency of the pigment. In performing this operation only a little is to be done at each sitting.

In his paper on **epilepsy as related to the ocular muscles**, Dr. Wendell Reber, Philadelphia, emphasized the fact that the most painstaking correction of refraction is demanded. The author reports 3 cases of epilepsy greatly relieved by the use of prisms. Cases are seen, however, which continue to have seizures notwithstanding the use of carefully fitted glasses and tenotomy.

Dr. Lewis S. Somers, Philadelphia, read a paper entitled **chronic sphenoid abscess**. This condition is more frequent than is generally believed, and sometimes terminates fatally. Many cases are treated as nasal and pharyngeal catarrh. The most discharge is found high up between the middle turbinate and the septum. Inspissated pus is frequently found on the pharyngeal walls. Pain is an important symptom and is always present when drainage is interfered with. It may be intermittent or continuous. The anterior nares show the changes of chronic rhinitis, and ophthalmic symptoms are generally present. The author reports a case which improved after evacuation of the pus, thorough antisepsis and drainage. Exploratory puncture is of value when the diagnosis is uncertain.

The wisdom of removing all of the tonsil whenever enlarged and diseased was the title of a paper read by Dr. Louis J. Lautenbach, Philadelphia. This condition is a common one and is always a menace to health. The author advises the entire removal of the tonsil. The patient will be less liable to nasal troubles, and especially diphtheria; the tendency to ear diseases will be diminished, and there will be no more attacks of tonsillitis.

Dr. J. Moorhead Murdoch, Polk, delivered the **address in mental disorders**. In the United States there are 100,000 feeble-minded persons. The causes are heredity, the excessive use of alcohol by one or both parents, tuberculosis, epilepsy, insanity, syphilis and the intermarriage of blood relations. Difficult deliveries are also responsible for a number of cases. After birth we find as causes the abuse of drugs and in a small number of cases traumatism. In the treatment of this condition little is to be expected from drugs. These children should be placed in homes where they will have every attention and find pleasure in the association with each other. The operation for microcephalia unfortunately has not been very successful. It has been shown that brains taken from microcephalic skulls show no compression, thus proving the skull accommodates itself to the size of the brain.

Dr. F. Savory Pearce, Philadelphia, read a paper on the **treatment of the insane in private practice**. His conclusions are as follows: Acute insanities should be modified long before there is any occasion to think of asylum treatment, and the earliest possible treatment instituted. Asylum treatment is valuable for chronic insanities, homicidal maniacs and melancholiacs. Acute insanities of the typhoid type, i. e., those that savor of two or more types, offer the most hopeful prognosis and are, therefore, the ones to be kept out of asylums. Especially when hysteria enters as an element in the case, the patient should be kept out of asylums. Children are decidedly better treated at home. It is the physician's duty to overcome the terror the laity have for the insane, and to engender the same hopefulness in the private treatment of the insane as we find in general medical affections.

In the evening Ex-Judge Edward Harvey, Allentown, delivered an address of welcome which will be published in the **Philadelphia Medical Journal**.

The annual address was delivered by Dr. Francis P. Ball, Lock Haven, President of the Medical Society of Pennsylvania, taking as his subject the **opposition to medical science**. Theologians of early times seriously retarded medical progress. To-day we have the antivaccinationists and antivivisectionists. One author claims that as a result of vaccination marked degeneracy of the race has resulted which he claims is shown by statistics, and reports many cases of vaccination resulting in infection and disease transmission. Before the advent of antisepsis and while arm to arm vaccination was practised, there were some cases of infection and some diseases, such as syphilis and tuberculosis which were transmitted. Now, with thorough antisepsis, accidents are rare. The same author says it was the principal cause of the sickness among the troops during the recent Spanish-American war, and concluded by stating that vaccination is no proof against smallpox and is a dangerous operation. Dr. Ball quotes statistics showing the efficacy of vaccination in controlling smallpox and does not believe there is any degeneracy of the race, and, if so, it is not due to vaccination. The main argument of the antivivisectionists is cruelty. The author says he knows of no investigator whose methods are open to this argument, and calls attention to the vast amount of information accruing from animal experimentation. Through animal experimentation diphtheria has lost much of its horror, and through it asepsis and antisepsis have reached their present high state of development, both of which are of inestimable value to the human race.

WEDNESDAY MORNING, SEPTEMBER 17.

After the appointment of the committee on nomination, the society proceeded to its scientific program. Dr. A. O. J. Kelly, Philadelphia, delivered the **Address in Medicine**, his subject being **Medical State Board Examinations and Interstate Reciprocity**. The State Medical examinations are defective in several conditions. Examinations are wholly written and of no practical value. The same examination is required for reputable physicians of many years' standing as for recent graduates. Many of the questions are obscure. The examinations in the elementary branches should be confined strictly to the applied and practical aspects of the subject and should be made more practical. Every applicant should be made to make a diagnosis. Two examinations should be held, one for the recent graduate and one for the physician who has been practising some years. Reputable practitioners desiring to remove to other States, as well as those living near the border line of two or more States, should be permitted to practise in the State of their election. Dr. Rodman's plan he considers admirable, but visionary. The State Medical Board of Maryland requires that a practitioner of another State, desiring to practise in Maryland, shall furnish, under oath, the length of time and the place where he practised medicine, whereupon he is invited to meet the Maryland Board and is given special consideration, according to the merits of his case.

Dr. Augustus A. Eshner, Philadelphia, in his paper on **Unilateral Renal Hematuria**, after considering the causes of hematuria, among which he mentions the infectious fevers, blood diseases, as hemophilia, drug intoxications, intense jaundice, hysteria and sexual excess, reported a case of renal calculus with hematuria, in a girl of 20. She complained of sudden acute pain on the right side of the abdomen which had been present about 2 weeks. The urine was of a red color, acid reaction, sp. gr. 1022, containing considerable quantities of albumin; no sugar. Red blood corpuscles were found on microscopical examination. The right kidney was exposed but revealed nothing abnormal. A short time afterward the patient passed several small concretions which floated on the surface of ether, which did not dissolve them. The urine gradually resumed its normal condition, the pain disappeared, and now, one year after operation, there is no evidence of hematuria, though there is slight burning on micturition and a slight sedi-

ment in the urine. The author has collected 47 cases from the literature. The condition is more common in women; the youngest patient was 18, the oldest 76. Kelly reported 2 cases and thinks telangiectasis may be the cause of some of the obscure cases. Morton said since the introduction of the cystoscope, enabling catheterization of the ureters, diagnosis has been greatly facilitated. Many cases of this condition he thinks are due to increased permeability of the vessels. It is seen in athletes after prolonged muscular exertion. Eshner agrees with Kelly that telangiectasis may explain some of the obscure cases.

The **Surgical Treatment of Gastropotosis** was the subject of a paper read by Dr. Henry Beyea, Philadelphia. Glénard's disease has been known since 1885. The etiology is not perfectly understood. As a result of gastropotosis there is nearly always secondary dilatation of the stomach. The symptoms are those of severe atonic dyspepsia. The treatment has consisted in massage, electricity, the avoidance of tight lacing and the rest cure. The application of an abdominal binder is of value in some cases. Medical and mechanical treatment, when skillfully applied, give much relief, but are not curative. The author has devised an operation which consists in shortening the gastrohepatic and gastrosplenic ligaments. The mortality of this operation is slight, from 1/40 to 1%. S. Solis-Cohen, Philadelphia, thinks this operation a good one, and recognizes that medical and mechanical treatment are of little avail.

Dr. H. B. Allyn, Philadelphia, read a paper on **Pericardial Effusions as a Terminal Infection in Chronic Interstitial Nephritis**. This condition is present in about 10% of cases. The pathology of this form of pericardial effusion differs somewhat from other forms, blood and pus being more likely to be present. He reports a case in a man, 26 years of age. The presence of pericardial effusion was confirmed by the X-rays. The patient died in coma, and the diagnosis was verified at the autopsy. The bacillus coli communis was found in the fluid. Kelly thinks pericardial effusion not an uncommon condition at the termination of interstitial nephritis, but is not sure we should call it a terminal infection. The pericardial effusion may be the manifestation of the toxemia, the bacteria gaining entrance later. In the diagnosis of pericardial effusions he recommends exploratory puncture.

Dr. T. J. Elterich, Allegheny, read a paper on **Infantile Scurvy**. The majority of cases occur between the eighth and twentieth months. The cause is found in lack of pure air and good food. Anemia always accompanies the condition, the red cells varying from 2,500,000-3,500,000 per cmm. Hyperesthesia and swellings of the lower extremities are among the earliest and most constant symptoms. These swellings are usually found above or below the knee joint. Hemorrhages are not uncommon and may occur from the mouth, nose, stomach, bowels and occasionally from the kidney. Fever is present in some cases, and may result from the disease itself or from the gastro-intestinal disturbances. Autopsy reveals hemorrhage between the epiphyses, and epiphyseal separation is frequent. Most cases are rapidly cured by antiscorbutic treatment. The prognosis is good if the disease is recognized early. The author reports a case, the patient having been fed on condensed milk, with **complete fracture of the femur and multiple epiphyseal separations**. Fracture of the femur is rarely seen in scurvy, especially as the first indication of the disease, as was the case in this patient. McKnight called attention to the value of orange juice in the treatment of this disease.

Dr. Solis-Cohen discussed the value of **Hydrotherapy in Diseases of the Heart**. By hot and cold water we are able to influence the contractions of the heart and vessels throughout the body. Cold water causes first an acceleration with subsequent slowing, while hot water produces primarily a slowing and secondarily acceleration of the heart. The individual contractions become more vigorous after the application of cold and weaker after the application of hot water. Thus we have the action of digitalis, prolongation of the diastolic period, without the toxic effects of this drug. In the treatment of heart disease water is used both externally and internally; internally by drinking, enteroclysis and hypodermoclysis. The best water for this purpose contains carbonic acid; in its absence sodium chloride should be used. Two applications are made, the first of hot, the second of cold water. In

this way we obtain the primary effect of the hot and the secondary effect of cold. At first the applications should be continued from 10 to 15 minutes, repeated 3 or 4 times a day; later from 1 to 2 hours, according to the effect desired, two applications being made a day. This method of treatment is of value in slight disease of the myocardium, but is harmful if the degeneration is extensive. The application of a coil with cold water over the cervical spine will reduce the excessive cardiac rate in such functional diseases as exophthalmic goiter.

WEDNESDAY AFTERNOON, SEPTEMBER 17.

The first paper was read by Dr. Edgar M. Queen, who delivered the **address on hygiene**. The public does not seem to be alarmed regarding the transmissibility of tuberculosis. There is still need, in many places, for the enactment of laws preventing expectoration. The importance of treating tubercular patients in private hospitals cannot be emphasized too strongly. Bacteriological examinations show that milk contains more tubercle bacilli than is generally believed. The tuberculin test is of value in the diagnosis of this disease in animals, but gives no indication of its extent. Solutions of corrosive sublimate will disinfect dry tubercular sputum with certainty; chloride of lime and formaldehyde are not so efficacious. After the death of a tubercular patient the room should be tightly closed and thoroughly disinfected. In selecting a climate for the treatment of this class of patients, the atmosphere should be dry and stimulating, with an abundance of sunshine. Seaside resorts are beneficial to those subject to hemorrhages, to the scrofulous and chronic cases with cavity formation. Mountain resorts are suitable to those hereditarily inclined, in whom the extent of the disease is slight, with little or no fever. In speaking of smallpox, he stated that the law required all children under a certain age, attending school, to be vaccinated, but for children who do not attend school, vaccination was not required. Physiology and hygiene are not given enough attention in the public schools.

Dr. Mazyck P. Ravenel, Philadelphia, read a paper on the **unity and intercommunicability of human and bovine tuberculosis**, which he bases on a study of cultures taken from these sources, and of the gross pathology. The main difference is that in man we have the acute type known as miliary tuberculosis, and in animals tumor formation. In man there is caseation of material and in animals frequently calcification. The histological pathology is the same. Of more practical importance, however, is the fact that unity presupposes intercommunicability and infection from man to animal, as has been shown by inoculation. Inoculation of the human bacillus into cattle has been successful. Tubercular material, taken from the infected glands of a child, killed several calves and three cows. The author has succeeded in transforming an ordinary sputum culture into a bovine culture. Infection from animal to man may occur through inhalation and diseased food. Statistics show this. The autopsies of 714 children, dead from diphtheria, showed the presence of intestinal tuberculosis in 37.1%. Bachman agreed with Ravenel and reported a case, occurring in his family, of a child of five, in whom he traced the disease to the use of milk obtained from an infected cow. Alfred Hand, Jr., Philadelphia, reported the findings at the autopsies of 332 children dying from various causes. Of this number, 115 showed tuberculosis, and all but two of these died from the disease. The oldest lesions were found in the mesenteric glands in 10% of cases, these glands being affected in one-half. This seems to show some connection between human and bovine tuberculosis, as the children were fed largely on milk. Ravenel, in closing the discussion, said that, in looking for the primary lesion, search is often made too far down in the intestinal tract, and that the bacillus can penetrate the intestinal walls. Besides, the tonsils are often the portals of entrance.

Recent discoveries in the domain of etiology was the subject of a paper read by Dr. D. H. Bergey, Philadelphia.

During the last few years there have only been a few additions to the specific action of bacteria. Revolutionary results have followed the discovery of the true etiological factor of yellow fever. Reed has shown that the disease is not conveyed by formites, but by bacteria through the medium of mosquitoes. In smallpox no bacteria have been found in the early stages; but in the pustules staphylococci and streptococci are found. The author believes variola is caused by an animal parasite belonging to the protozoa, which, during certain stages of development, show ameoid movements.

Dr. Adolph Koenig, Pittsburg, read a paper entitled **the Treatment of the Infectious Diseases**. In these conditions measures should be employed which favor the elimination of toxic materials. This is accomplished through the agency of the excretory organs, the most important of which are the skin and kidneys. The use of guaiacol in typhoid fever is practically a local treatment, the end sought being to prevent the typhoid ulcer from becoming infected with other organisms.

Some observations of typhoid fever epidemics caused by infected water and milk, was the subject of a paper read by Dr. I. C. Gable, York. It is generally recognized that typhoid fever, in most cases, is due to contaminated water; but infected milk is also responsible for many cases. It is due to unsanitary conditions either on the farm or in the dairy. The author reports an epidemic in which 453 cases were reported between February and June. It was found that, during the latter part of January, 19 cases had developed at a small town above the city of York, the sewerage of which emptied into the river from which York received its water-supply.

Dr. A. R. Craig, Columbia, reviewed the recent outbreak of smallpox at that place. The disease was introduced by a negro. Many of the inhabitants were unvaccinated, and in a short time there were 106 cases. House to house fumigation with formaldehyde was done, a hospital was built, and the authorities demanded the removal of the smallpox patients to the hospital. During this time the epidemic showed no abatement. Compulsory vaccination was then instituted, and from that time the number of cases diminished, and the disease finally disappeared.

A paper was then read by Dr. W. M. Welch and J. F. Schamberg on **An Analysis of the Urine in 100 Cases of Smallpox**, which will appear in *The Philadelphia Medical Journal*.

THURSDAY MORNING, SEPTEMBER 18.

Dr. Alfred Hand, Jr., Philadelphia, read a paper entitled **the home modification of milk for infant feeding**. Cow's milk is the best substitute for human milk, but must be pure and should be either pasteurized or sterilized and modified. The author uses barley water as a diluent except when constipation is present, when he uses oat-meal water. He describes his method of modification. Underwood thinks proprietary foods should never be used, but has had good results from the use of modified cow's milk. Hand showed a chart illustrating the gain in weight of children put on this diet.

Dr. Geo. D. Nutt, Williamsport, delivered the **address in surgery**. In the past few years the greatest interest has centered on appendicitis. No organ presents so many pathological pictures, every case being a law unto itself. The mortality of the mild cases is about 6%, but in the severe cases with pus formation it is much higher, and, as both are reported, he considers statistics unreliable. In the treatment of malignant growths medicinal treatment has so far been a failure, operation being the only rational method. The X-ray has proved of value in superficial growths, but is best employed after the greater portion has been removed by the knife. During the present year nothing new has developed in surgery, except the improvement of surgical technique and anesthesia. The diagnosis of fractures by the X-ray and surgical shock have received considerable attention.

Dr. Wm. L. Rodman, Philadelphia, read a paper on **carcinoma of the mammary gland**, describing the anatomy of the gland, especially the lymphchannels, of which there are at least five sets. In the prognosis, early diagnosis, the age of the patient and the portion of the gland affected are of great importance. Benign growths are always motile because the growth is encapsulated. The skin is generally dimpled over malignant growths; retraction of the nipple is seen in 52% of the cases. The younger the patient the more malignant is the growth. The youngest case recorded occurred in a girl of 21. Tumors occurring over the internal quadrant of the gland are more rapidly fatal than those occurring over the external quadrant. Cancer of the right breast is more quickly fatal than that of the left, due to early metastases to the liver. Halstead's operation is undoubtedly the best. The essentials of the operation are: The removal of plenty of skin, the pectoral muscles should be uncovered from origin to insertion, the axillary vessels should be exposed, and there should be primary union if possible. Operations by recent methods show 34% cures; Halstead reports 41% of cures. Beates said this paper shows the importance of anatomical knowledge and thinks all medical schools should have a chair devoted to anatomy as related to medicine. Many of the older physicians believed cancer a constitutional disease, because they did not understand the lymphatic anatomy of the gland. Rodman, in closing, said he believes that 50% of cases operated on early can and should be cured, and reports 4 cases in which he thinks he has made a cure.

A paper entitled **empyema with special reference to a new method of drainage** was read by Dr. Leon Brinkman, Philadelphia. The author reviews the etiology, symptoms, diagnosis and prognosis. His method of drainage consists in making the incision of the pleura correspond to the skin incision and the two stitched together. In this way he has found the period of convalescence is shortened.

Dr. Lewis H. Adler, Jr., Philadelphia, read a paper on **polypoid growths in children versus prolapse**. Polypoid growths are of much more frequent occurrence than the profession is aware of, and in many cases the proper diagnosis is not made. The author discusses the differential diagnosis. Many cases of prolapse undergo spontaneous cure. Polypoids are frequently pyriform in shape resembling a pear, the surface is granular, irregular or lobulated, are of a livid or dark red color and may be gangrenous. They may be single, but usually are multiple. When situated low down there is distress, discharge of mucus and at intervals blood. Bleeding from the rectum in children is of great diagnostic importance. Prolapse and hemorrhoids are the only diseases to be considered in the differential diagnosis. The treatment is operation; entire removal of the growths.

Dr. Wm. V. Laws, Philadelphia, read a paper on **the treatment of spina bifida**, in which he reports the results of 2 cases on which he operated, one being successful. The open operation he thinks the best. Rodman said he has never had results from the injection treatment and thinks the disease should always be classified as a congenital hernia. This case and the one reported by Welch are the only successful cases he knows of. The diagnosis is not easy, a lipoma may be mistaken for spina bifida if there is a superimposed layer of fat over the spina bifida. Laws said that during the past year 10 successful cases have been reported. The child should always be given the chance offered by operation, though the mortality is high, as it offers the only possible chance of recovery.

Dr. G. W. Wagoner reported a case of **gunshot wound of the stomach, liver, lung and head**. The patient when seen was in profound shock and had 2 attacks of explosive vomiting, the vomit being ejected for a distance of 6 feet. The abdomen was opened in three places, the bullet found, hemorrhage checked and lacerations repaired. The patient recovered. La Place thinks infection is the principal cause

of death in these emergency cases. Wagoner compared this case to that of the late President McKinley.

The practical side of electrothermic hemostasis was the subject of a paper read by Dr. Andrew J. Downes, Philadelphia. The technique is simple, and by this method there is eliminated all the handling of ligaments with its possible source of infection. The author reports 2 hysterectomies in which he employed this method in which there was little or no postoperative shock or abdominal pain.

Dr. Charles Lester Leonard, Philadelphia, read a paper entitled the **Röntgen ray treatment of cancer** which will be published in a coming number of the **Philadelphia Medical Journal**.

Dr. Wm. S. Newcomet, Philadelphia, reports **some cases of malignant disease treated by the X-ray**. The first case reported has practically healed and there remains little or no scarring. Whether it will return or not it is hard to say, but he believes it will. Another case, an epithelioma of the face involving the frontal and nasal bones, has completely healed under this treatment. A third case was operated on last June, 2 months after operation a recurrence was noted. X-ray treatment greatly improved her condition. Rodman would like to know how often and how long are the exposures? In what forms of cancer does it give the best results? Has it any effect on tubercular glands? McKnight reports a favorable case of X-ray treatment. Fisher recommends the treatment. Guthrie thinks it is used to the exclusion of other good methods. Shoemaker thinks more men should make a specialty of X-ray work, especially in the cities there should be one or two men devote themselves to this work, carefully record their cases, and then we could judge of its results. Thompson reports 4 cases which recurred after operation upon which the X-ray had no effect. Leonard, in closing the discussion, said there was too much diffusion of the idea that X-ray will cure cancer. In answer to Rodman's questions he said the length and frequency of the exposures must be suited to the nature of the case, the action of the ray and the reaction of the tissues. The usual exposure is 10 minutes at 10 inches. This treatment is best adapted to small sarcomata and epitheliomata.

THURSDAY AFTERNOON, SEPTEMBER 18.

Dr. John M. Baldy, Philadelphia, delivered the address in obstetrics. (Will appear in **Philadelphia Medical Journal**.)

Dr. W. L. Estes, South Bethlehem, reported a case of **abdominal extra-uterine pregnancy with operation at full term and delivery of a living child**. The patient had passed the normal period of her labor, but felt quite well. Upon reaching up into a closet she felt something give way and suffered great pain. She summoned her physician, thinking she was going into labor, but as this did not occur for 5 or 6 days, she was admitted to the hospital. The child was located transversely across the abdomen, the head to the right. Vaginal examination showed an enlarged but empty uterus. There had been no hemorrhage from the vagina. The abdomen was opened and the child removed. A large amount of greenish fluid escaped and a gangrenous mass found. The woman died. The child, a healthy baby, was exhibited to the society. Price thinks the operation should be performed as soon as the diagnosis is made. He reports a successful case. The rupture takes place between the fourth and fifteenth week. Beates reports a case, the child lying transversely in the abdomen, the uterus being about 4 inches in width. Operation was refused and both died. Estes, in closing, said that when fluid is present drainage should be made posteriorly. He only knows of 16 cases of this condition since 1896.

Dr. A. Barr Snively, Waynesboro, reports a case of **fistulæ between the gall-bladder and stomach**.

Dr. Richard H. Gibbons, Scranton, read a paper on the **incision in appendicitis**, laying particular stress on the McBurney method and Wier's modification thereof. His rea-

son for employing this incision is that it is the least liable to be followed by hernia, the muscles not being cut, but separated. La Place said that where there is no abscess formation, the McBurney incision is the best, but if present the abscess should be laid open, and if necessary the rectus muscles should be cut. Price said it is not the incision but the treatment after we have made the incision which is of importance. In referring to drainage, he had never had to employ it except in 5 or 6 cases, and has never had but 3 or 4 cases of hernia follow. With an incision 3 inches long we can deal with any abdominal condition, and he has never tied a vessel except in the mesentery. Noble thinks the simple incision is best, and if suppuration is present we should cut through the rectus muscle. Gibbons, in closing, said it was absurd in these days to cut across muscles. In closing the wound one of the most important procedures is to bring together the edges of the transversalis.

The **danger point in appendicitis** was the title of a paper read by Dr. Ernest La Place, Philadelphia, in which he said the danger point is from the beginning of the disease. As the appendix is undergoing retrograde metamorphosis and does not functionate, it is endowed with less vitality and thus less able to withstand disease. The reason some appendices become gangrenous he attributes to the condition of the soil and susceptibility of the patient. He believes the majority of patients recovering on medical treatment would get well anyway. Appendicitis is a purely surgical disease, and when removed there are no further attacks of the disease, as may be the case should a patient recover on medical treatment. The author advises immediate operation. Baldy believes that if suppuration does not take place there is no necessity for operation, and thinks in some instances you are able to tell whether suppuration will follow. Price thinks it would be better to operate in a stable than not at all. Noble agrees with Price. If there is one thing surgery has found out it is that appendicitis should be operated for. He reports a case in which there was no sign of suppuration, but which was found when the abdomen was opened. Gibbons thinks all cases suffering from indigestion should be examined for appendicitis, and if the abdomen be opened for any cause the appendix should be removed.

Dr. Charles P. Noble read a paper entitled **the role of the cystoscope in the diagnosis and treatment of disease of the urinary tract**. The cystoscope has made it possible to study and see the bladder walls, the mucous membrane of the urethra, and the orifice of the ureters. Cystitis instead of being a general inflammation of the bladder wall is now known to be limited to certain portions, frequently the trigone, which can be seen with the cystoscope. The cystoscope has also made possible catheterization of the ureters thus enabling us to collect the urine of both kidneys separately. By means of the cystoscope medicinal applications can be made directly to the diseased areas, or they may even be cauterized. The author described and showed the instrument.

[H. U. N.]

Secondary Infection in Cerebrospinal Meningitis.—Sacquépée reports 3 cases of acute epidemic cerebrospinal meningitis in soldiers, in each of whom death occurred from secondary infection. Lumbar puncture showed meningococci early in the disease, but other micro-organisms were demonstrated before death, the meningococci disappearing about the twentieth day of the illness. In 2 cases this was the colon bacillus, in the other it was the staphylococcus albus. While the former probably resulted from auto-infection from the gastro-intestinal tract, the latter probably came from the respiratory tract. The occurrence of secondary infection is recognized by the presence in the cerebrospinal fluid of other bacteria, after the third week of the disease. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 17, 1902.) [M. O.]

Special Article.

SPINA BIFIDA.

The spinal laminae fail to unite once in about every one thousand births. Sometimes there is a small congenital gap in the spine and the cord and membranes remain in the canal (spina bifida occulta). The skin is frequently indented over this defect and the dimple is filled with hair. These cases need no treatment unless there are symptoms of pressure on the cord, when the removal of such compression would be indicated if it be due to a local hypertrophy of the skin and subjacent soft parts, as some authorities believe. In a few, two per cent., the cleft is wide, the skin over the tumor is absent, and the central canal of the cord communicates with the surface of the body (myelocoele). This condition is not compatible with existence. In others, 8 to 12 per cent. of the cases, the membranes alone escape through the opening (meningocoele). In the vast majority of cases, 62 to 86 per cent., there is some portion of the cord in the protuberance (meningomyelocoele), and very rarely the tumor is the result of a dilatation of the central canal of the cord (syringomyelocoele). This variety, according to De Ruyter, is invariably situated laterally.

More than one vertebra is usually fissured, and we believe a case has been reported in which all the vertebrae were involved. Rarely the body of the vertebra is implicated (anterior spina bifida).

The unfortunate subjects of spina bifida often present other deformities, like clubfoot or club-hand; developmental defects, such as harelip; genital fissure and ectopia vesicae, and occasionally such uncanny conditions as crania bifida, anencephalus and hydrocephalus. Trophic changes, anesthesia and paralysis may be found below the cloven spine either as the result of pressure or as the result of abnormalities of the nervous elements.

Although spontaneous cure does occur, this event is so rare that it may be laid down as a working rule that these little sufferers are separated from eternity by the skin of their backs and that, unless they perish from marasmus or from the sequelae of the paralysis, they are sure to succumb to meningitis following rupture or inflammation of the sac.

With this gloomy view before them, practitioners are too apt to abandon hope when they encounter a case of bifid spine, and mentally remark that it were better had the little patient never been born, or, having been born, had drawn its first and last breath simultaneously.

It is refreshing after following this ghastly line of thought to read the paper on spina bifida by Knott in the May number of the *Annals of Surgery*. He insists on early operation, saying that the patient has everything to gain and nothing to lose in accepting surgical interference, that there is always a prospect of relief which may be secured in no other way, and that, if this hope is not realized, nothing has been lost by the attempt, as death is almost certain in neglected cases. Concerning the method of operation there is some difference of opinion. Gal-

vanopuncture and the seton are universally regarded as unsurgical and the employment of the ligature generally recognized as unsafe, because of the danger of including nerve-tissue. Although the committee, appointed by the London Clinical Society to report on the method of treating spina bifida, considered the injection of Morton's fluid the best procedure, this plan has so often been followed by sloughing and rupture of the sac, convulsions and meningitis, paralysis and hydrocephalus, that most surgeons think excision to be the proper procedure.

The most rigid asepsis must be maintained and a central incision should never be made, as it endangers the cord. After making an elliptical cut, including the redundant tissues if the case be a meningocoele, the sac should be cut away and the opening sutured with close stitches of catgut; nervous structures should first be separated from the wall of the sac and restored to the spinal canal. It is advisable to plug the spinal canal with gauze during the separation of the nerves from the sac, and to suture the meninges and skin in different places, in order to prevent the escape of cerebrospinal fluid. The bony defect may be closed by drawing the remnants of the laminae, if present, over the gap; by swinging a flap of bone attached by its periosteum from the outer table of the ilium if the deformity be in the sacral region; by filling the cleft with a bone graft, such as the scapula of a rabbit; or by inserting some foreign body, such as a plate of celluloid. Knott makes no attempt to close the opening with bone, but loosens the muscles on either side of the spine and sews them together over the defect. In meningocoeles 80 per cent. of recoveries have been secured. Fifty per cent. of the cases of meningomyelocoele operated upon recover, and in from 15 to 20 per cent. function is restored. In two meningocoeles, on which Knott operated, marked improvement in the motion of the lower limbs occurred in each instance.

The Beginning of Pyloric Stenosis.—Hayem reports the case of a man of 34, an avowed smoker and drinker for 17 years, who had, for 2 years, vomited 2 or 3 hours after meals, with much pain. On admission to the hospital he was vomiting everything he ate. Examination of the stomach contents showed general hyperpepsia, much free hydrochloric acid, high acidity, high chlorides and bile, after fasting. This led to the diagnosis of incomplete pyloric or subpyloric stenosis. As cancer is rare at 34, the cause of the stenosis in this case was probably chronic ulcer of the stomach. Though the prognosis is grave, operation is not indicated at present. Hayem advised rectal alimentation for a week, warm moist compresses to the epigastrium, water and bismuth subnitrate by the mouth, followed by Carlsbad salts daily. (*La Médecine Moderne*, June 25, 1902.) [M. O.]

Ocular Prosthesis by Subconjunctival Injections of Vaseline.—In a comprehensive review of the subject, Rohmer gives the history, technique and complications of this procedure. Former proceedings to include a foreign body in the orbit failed, because it was impossible to bring the artificial eye to the level of the sound eye. The injection of this mixture of vaseline and paraffine is inoffensive and perfect in its result, since it utilizes an ideal conjunctival stump. The technique is simple and painless. There have been no bad results when a reasonable time has been allowed to elapse, after operation, before the injection of vaseline. While the vaseline injected is generally absorbed very rapidly in animals, it remains unaffected in man. (*Revue Médicale de l'Est*, June 15, 1902.) [M. O.]

Original Articles.

CHAUVINISM* IN MEDICINE.

THE ADDRESS IN MEDICINE, CANADIAN MEDICAL
ASSOCIATION, MONTREAL, SEPT. 17th, 1902.

By WILLIAM OSLER, M. D.,

of Baltimore, Md.

Professor of Medicine, John Hopkins Hospital, Baltimore.

A rare and precious gift is the Art of Detachment, by which a man may so separate himself from a life-long environment as to take a panoramic view of the conditions under which he has lived and moved, and that frees him from Plato's den long enough to see the realities as they really are, the shadows as they appear. Could a physician attain to such an art, he would find in the state of his profession a theme calling as well for the exercise of the highest faculties of description and imagination as for the deepest philosophic insight. With wisdom of the den only and of my fellow-prisoners, such a task is beyond my ambition and my powers, but to emphasize only the subject that I wish to bring home to your hearts I must refer to certain distinctive features of our profession:—

I. Four Great Features of the Guild.

Its noble ancestry.—Like everything else that is good and durable in this world, modern medicine is a product of the Greek intellect, and had its origin when that wonderful people created positive or rational science, and no small credit is due to the physicians who, as Professor Gomperz remarks (in his brilliant chapter "On the Age of Enlightenment," *Greek Thinkers*, Vol. I), very early brought to bear the spirit of criticism on the arbitrary and superstitious views of the phenomena of life. If science was ever to acquire "steady and accurate habits instead of losing itself in a maze of phantasies, it must be by quiet methodical research." "It is the undying glory of the school of Cos that it introduced this innovation into the domain of its Art, and thus exercised the most beneficial influence on the whole intellectual life of mankind. Fiction to the right! Reality to the left! was the battle cry of this school in the war it was the first to wage against the excesses and defects of the nature philosophy" (Gomperz). The critical sense and skeptical attitude of the Hippocratic school laid the foundations of modern medicine on broad lines, and we owe it: *First*, the emancipation of medicine from the shackles of priestcraft and of caste; *secondly*, the conception of medicine as an art based on accurate observation, and as a science, an integral part of the science of man and of nature; *thirdly*, the high moral ideals, expressed in that most "memorable of human documents" (Gomperz), the Hippocratic oath; and *fourthly*, the conception and realization of medicine as the profession of a cultivated gentleman.** No other profession can boast of the

same unbroken continuity of methods and of ideals. We may indeed be justly proud of our apostolic succession. Schools and systems have flourished and gone, schools which have swayed for generations the thought of our guild, and systems that have died before their founders; the philosophies of one age have become the absurdities of the next, and the foolishness of yesterday has become the wisdom of to-morrow; through long ages which were slowly learning what we are hurrying to forget; amid all the changes and chances of twenty-five centuries, the profession has never lacked men who have lived up to these Greek ideals. They were those of Galen and of Aretæus, of the men of the Alexandrian and Byzantine schools, of the best of the Arabians, of the men of the Renaissance, and they are ours to-day.

A second distinctive feature is the *remarkable solidarity*. Of no other profession is the word universal applicable in the same sense. The celebrated phrase used of the Catholic Church, is in truth much more appropriate when applied to medicine. It is not the prevalence of disease or the existence everywhere of special groups of men to treat it that betokens this solidarity, but it is the identity throughout the civilized world of our ambitions, our methods and our work. To wrest from nature the secrets which have perplexed philosophers in all ages, to track to their sources the causes of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions. Carefully to observe the phenomenon of life in all its phases, normal and perverted, to make perfect that most difficult of all arts, the art of observation, to call to aid the science of experimentation, to cultivate the reasoning faculty, so as to be able to know the true from the false—these are our methods. To prevent disease, to relieve suffering and to heal the sick—this is our work. The profession in truth is a sort of guild or brotherhood, any member of which can take up his calling in any part of the world and find brethren whose language and methods and whose aims and ways are identical with his own.

Thirdly, *its progressive character.*—Based on science, medicine has followed and partaken of its fortunes, so that in the great awakening which has made the nineteenth memorable among centuries, the profession received a quickening impulse more powerful than at any period in its history. With the sole exception of the mechanical sciences, no other department of human knowledge has undergone such a profound change—a change so profound that we who have grown up in it have but slight appreciation of its momentous character. And not only in what has been actually accomplished in unravelling the causes of disease, in perfecting methods of prevention and in wholesale relief of suffering, but also in the unloading of old formulæ and in the substitution of the scientific spirit of free enquiry for cast-iron dogmas we see a promise of still greater achievement and of a more glorious future.

And lastly, the profession of medicine is distinguished from all others by *its singular beneficence*. It alone does the work of charity in a Jovian or

*Definition: A narrow, illiberal spirit in matters national, provincial, collegiate or personal.

**Nowhere in literature do we have such a charming picture illustrating the position of a cultivated physician in society as that given in Plato's Dialogues of Eryximachus, himself the son of a physician, Acumenus. In that most brilliant age the physician was the companion and friend, and in intellectual intercourse the peer of its choicest spirits.

God-like way, dispensing with free hand truly Promethean gifts. There are those who listen to me who have seen three of the most benign endowments granted to the race since the great Titan stole fire from the heavens. Search the scriptures of human achievement and you cannot parallel in beneficence Anesthesia, Sanitation, with all that it includes, and Asepsis—a short half-century's contribution toward the practical solution of the problems of human suffering, regarded as eternal and insoluble. We form almost a monopoly or trust in this business. Nobody else comes into active competition with us, certainly not the other learned professions which continue along the old lines. Every few years see some new conquest, so that we have ceased to wonder. The work of half-a-dozen men, headed by Laveran, has made waste places of the earth habitable and the wilderness to blossom as the rose. The work of Walter Reed and his associates will probably make Yellow Fever as scarce in the Spanish Main as is typhus fever with us. There seems to be no limit to the possibilities of scientific medicine, and while philanthropists are turning to it as to the hope of humanity, philosophers see, as in some far-off vision, a science from which may come, in the prophetic words of the Son of Sirach, "Peace over all the earth."

Never has the outlook for the profession been brighter. Everywhere the physician is better trained and better equipped than he was twenty-five years ago. Disease is understood more thoroughly, studied more carefully and treated more skilfully. The average sum of human suffering has been reduced in a way to make the angels rejoice. Diseases familiar to our fathers and grandfathers have disappeared, the death-rate from others is falling to the vanishing point, and public health measures have lessened the sorrows and brightened the lives of millions. The vagaries and whims, lay and medical, may neither have diminished in number nor lessened in their capacity to distress the faint-hearted who do not appreciate that to the end of time people must imagine vain things, but in the light of the colossal advances of the past fifty years, what are they but flies on the wheels of progress?

So vast, however, and composite has the profession become, that the physiological separation, in which dependent parts are fitly joined together, tends to become pathological, and, while some parts suffer necrosis and degeneration, others, passing the normal limits, become disfiguring and dangerous outgrowths on the body medical. The dangers and evils which threaten harmony among the units, are internal, not external. And yet, in it, more than in any other profession, owing to the circumstances of which I have spoken, is complete organic unity possible. Of the many hindrances in the way, time would fail me to speak, but there is one aspect of the question to which I would direct your attention in the hope that I may speak a word in season.

Perhaps no sin so easily besets us as a sense of self-satisfied superiority to others. It cannot always be called pride, that master sin, but more often it is an attitude of mind which either leads to bigotry

and prejudice or to such a vaunting conceit in the truth of one's own beliefs and positions, that there is no room for tolerance of ways and thoughts which are not as ours are. To avoid some smirch of this vice is beyond human power; we are all dipped in it, some lightly, others deeply grained. Partaking of the nature of uncharitableness, it has not the intensity of envy, hatred and malice, but it shades off in fine degrees from them. It may be a perfectly harmless, even an amusing trait in both nations and individuals, and so well was it depicted by MM. Cogniard in their play, *La Cocarde Tricolore*, 1831, one character in which was the young recruit Chauvin, that the name Chauvinism has become a by-word, expressing a bigoted, intolerant spirit.* The significance of the word has been widened, and it may be used as a synonym for a certain type of nationalism, for a narrow provincialism or for a petty parochialism. It does not express the blatant loudness of Jingoism, which is of the tongue, while Chauvinism is a condition of mind, an aspect of character much more subtle and dangerous. The one is more apt to be found in the educated classes, while the other is pandemic in the fool multitude—"that numerous piece of monstrosity which, taken asunder, seem men and reasonable creatures of God, but, confused together, make but one great beast, and a monstrosity more prodigious than Hydra" (*Religio Medici*). Wherever found, and in whatever form, Chauvinism is a great enemy of progress and of peace and concord among the units. I have not the time nor, if I had, have I the ability to portray this failing in all its varieties; I can but touch upon some of its aspects, national, provincial and parochial.

II. Nationalism in Medicine.

Nationalism has been the great curse of humanity. In no other shape has the Demon of Ignorance assumed more hideous proportions; to no other obsession do we yield ourselves more readily. For whom do the Hosannas ring higher than for the successful butcher of tens of thousands of poor fellows who have been made to pass through the fire to this Moloch of nationalism? A vice of the blood, of the plasm rather, it runs riot in the race, and rages to-day as of yore in spite of the precepts of religion and the practice of democracy. Nor is there any hope of change! the pulpit is dumb, the press fans the flames, literature panders to it and the people love to have it so. Not that all aspects of nationalism are bad. Breathes there a man with soul so dead that it does not glow at the thought of what the men of his blood have done and suffered to make his country what it is? There is room, plenty of room, for proper pride of land and birth. What I inveigh against is a cursed spirit of intolerance, conceived in distrust and bred in ignorance, that makes the mental attitude perennially antagonistic, even bitterly antagonistic to everything foreign, that subordinates everywhere the race to the

*It is by no means easy to see, after reading the play (kindly loaned to me by Professor Paul Lafleur), how the name could have arisen. The nationalism displayed is of a most harmless type. In the sense here employed the word has been used by standard writers, e. g. Huxley.

nation, forgetting the higher claims of human brotherhood.

While medicine is everywhere tinctured with national characteristics, the wider aspects of the profession, to which I have alluded—our common lineage and the community of interests—should always save us from the more vicious aspects of this sin, if it cannot prevent it altogether. And yet I cannot say, as I wish I could, that we are wholly free from this form of Chauvinism. Can we say, as English, French, German or American physicians, that our culture is always cosmopolitan, not national, that our attitude of mind is always as frankly open and friendly to the French as to the English, to the American as to the German, and that we are free at all times and in all places from prejudice, at all times free from a self-satisfied feeling of superiority the one over the other? There has been of late years a closer union of the profession of the different countries through the International Congress and through the international meetings of the special societies; but this is not enough, and the hostile attitude has by no means disappeared. Ignorance is at the root. When a man talks slightingly of the position and work of his profession in any country, or when a teacher tells you that he fails to find inspiration in the work of his foreign colleagues, in the words of the Arabian proverb—he is a fool, shun him! Full knowledge, which alone disperses the mists of ignorance, can only be obtained by travel or by a thorough acquaintance with the literature of the different countries. Personal, first-hand intercourse with men of different lands, when the mind is young and plastic, is the best vaccination against the disease. The man who has sat at the feet of Virchow, or has listened to Traube, or Helmholtz, or Cohnheim, can never look with unfriendly eyes at German medicine or German methods. Who ever met with an English or American pupil of Louis or of Charcot, who did not love French medicine, if not for its own sake, for the reverence he bore his great master? Let our young men, particularly those who aspire to teaching positions, go abroad. They can find at home laboratories and hospitals as well equipped as any in the world, but they may find abroad more than they knew they sought—widened sympathies, heightened ideals and something perhaps of a *Weltkultur* which will remain through life as the best protection against the vice of nationalism.

Next to a personal knowledge of men, a knowledge of the literature of the profession of different countries will do much to counteract intolerance and Chauvinism. The great works in the department of medicine in which a man is interested, are not so many that he cannot know their contents, though they be in three or four languages. Think of the impetus French medicine gave to the profession in the first half of the last century, of the debt we all owe to German science in the latter half, and of the lesson of the practical application by the English of sanitation and asepsis! It is one of our chief glories and one of the unique features of the profession that, no matter where the work is done in the world, if of any value, it is quickly utilized. Nothing has con-

tributed more to the denationalization of the profession of this continent than, on the one hand, the ready reception of the good men from the old countries who have cast in their lot with us, and, on the other, the influence of our young men who have returned from Europe with sympathies as wide as the profession itself. There is abroad among us a proper spirit of eclecticism, a willingness to take the good wherever found, that augurs well for the future. It helps a man immensely to be a bit of a hero-worshipper, and the stories of the lives of the masters of medicine do much to stimulate our ambition and rouse our sympathies. If the life and work of such men as Bichat and Laennec will not stir the blood of a young man and make him feel proud of France and of Frenchmen, he must be a dull and muddy minded rascal. In reading the life of Hunter, of Jenner, who thinks of the nationality which is merged and lost in our interest in the man and in his work? In the halcyon days of the Renaissance there was no nationalism in medicine, but a fine catholic spirit made great leaders like Vesalius, Eustachius, Stenson, and others at home in every country in Europe. While this is impossible to-day, a great teacher of any country may have a world-wide audience in our journal literature, which has done so much to make medicine cosmopolitan.

III. Provincialism in Medicine.

We may congratulate ourselves that the worst aspects of nationalism in medicine are disappearing before the broader culture and the more intimate knowledge brought by ever-increasing intercourse, yet conditions have favored in English-speaking countries the growth of a very unpleasant subvariety, which may be called provincialism or sectionalism. In one sense the profession of this continent is singularly homogeneous. A young man may be prepared for his medical course in Louisiana and enter McGill College, or he may enter Dalhousie College, Halifax, from the State of Oregon, and in either case he will not feel strange or among strangers as soon as he has become accustomed to his environment. In collegiate life there is a frequent interchange of teachers and professors between all parts of the country. To better his brains the scholar goes freely where he wishes—to Harvard, McGill, Yale, or Johns Hopkins; there are no restrictions. The various medical societies of the two countries are, without exception, open to the members of the profession at large. The President of the Association of American Physicians this year (Dr. James Stewart), is a resident of this city, which gave also last year, I believe, presidents to two of the special societies. The chief journals are supported by men of all sections. The text-books and manuals are everywhere in common; there is, in fact, a remarkable homogeneity in the English-speaking profession, not only on this Continent but throughout the world. Naturally, in widely scattered communities, sectionalism—a feeling or conviction that the part is greater than the whole—does exist, but it is diminishing, and one great function of the national

associations is to foster a spirit of harmony and brotherhood among the scattered units of these broad lands. But we suffer sadly from a provincialism which has gradually enthralled us, and which sprang originally from an attempt to relieve conditions insupportable in themselves. I have praised the unity of the profession of this continent, in so many respects remarkable, and yet in another respect it is the most heterogeneous ever known. Democracy in full circle touches tyranny, and as Milton remarks, the greatest proclaimers of liberty may become its greatest engrossers (or enslavers). The tyranny of labor unions, of trusts and of an irresponsible press may bear as heavily on the people as imperialism in its worst form. And, strange irony of fate! the democracy of Provincial and State Boards has imposed in a few years a yoke more grievous than that which afflicts our brethren in Great Britain, which took generations to forge.

The delightful freedom of intercourse of which I spoke, while wide and generous, is limited to intellectual and social life, and, on the practical side, not only are genial and courteous facilities lacking, but the bars of a rigid provincialism are put up, fencing each state as with a Chinese wall. In the Dominion of Canada there are eight portals of entry to the profession, in the United States almost as many as there are States, in the United Kingdom nineteen, I believe, but in the latter the license of any one of these bodies entitled a man to registration anywhere in the kingdom. Democracy in full circle has reached on this hemisphere a much worse condition than that in which the conservatism of many generations has entangled the profession of Great Britain. Upon the origin and growth of the Provincial and State Boards I do not propose to touch. The ideal has been reached so far as organization is concerned, when the profession elects its own Parliament, to which is committed the control of all matters relating to the license. The recognition, in some form, of this democratic principle, has been one of the great factors in elevating the standard of medical education, and in a majority of the States of the Union it has secured a minimum period of four years of study, and a State Examination for License to Practice. All this is as it should be. But it is high time that the profession realized the anomaly of eight boards in the Dominion and some scores in the United States. One can condone the iniquity in the latter country more readily than in this, in which the boards have existed for a longer period, and where there has been a greater uniformity in the medical curriculum. After all these years that a young man, a graduate of Toronto and a registered practitioner in Ontario, cannot practise in the Province of Quebec, his own country, without submitting to vexatious penalties of mind and pocket, or that a graduate from Montreal and a registered practitioner of this province cannot go to Manitoba, his own country again, and take up his life's work without additional payments and penalties, is, I maintain, an outrage; it is provincialism run riot. That this pestiferous condition should exist through the various provinces of this Dominion and so many States of the Union, illustrates

what I have said of the tyranny of democracy and how great enslavers of liberty its chief proclaimers may be.

That the cure of this vicious state has to be sought in Dominion bills and National examining boards, indicates into what debasing depths of narrow provincialism we have sunk. The solution seems so simple, particularly in this country, with its uniformity of methods of teaching and length of curriculum. A generous spirit that will give to local laws a liberal interpretation, that limits its hostility to ignorance and viciousness, that has regard as much or more for the good of the guild as a whole as for the profession of any province—could such a spirit brood over the waters, the raging waves of discord would soon be stilled. With the attitude of mind of the general practitioner in each province rests the solution of the problem. Approach it in a friendly and gracious spirit and the difficulties which seem so hard will melt away. Approach it in a Chauvinistic mood, fully convinced that the superior and unparalleled conditions of your province will be jeopardized by reciprocity or by federal legislation, and the present antiquated and disgraceful system must await for its removal the awakening of a younger and more intelligent generation.

It would ill become me to pass from this subject—familiar to me from my student days from the interest taken in it by that far-sighted and noble-minded man, Dr. Palmer Howard—it would ill become me, I say, not to pay a tribute of words to Dr. Roddick for the zeal and persistence with which he has labored to promote union in the compound, comminuted fracture of the profession of this Dominion. My feeling on the subject of international, intercolonial and interprovincial registration is this—a man who presents evidence of proper training, who is a registered practitioner in his own country and who brings credentials of good standing at the time of departure, should be welcomed as a brother, treated as such in any country and registered upon payment of the usual fee. The ungenerous treatment of English physicians in Switzerland, France and Italy, and the chaotic state of internecine warfare existing on this Continent, indicates how far a miserable Chauvinism can corrupt the great and gracious ways which should characterize a liberal profession.

Though not germane to the subject, may I be allowed to refer to one other point in connection with the State Boards—a misunderstanding, I believe, of their functions. The profession asks that the man applying for admission to its ranks shall be of good character and fit to practise the science and art of medicine. The latter is easily ascertained if practical men have the place and the equipment for practical examinations. Many of the boards have not kept pace with the times, and the questions set too often show a lack of appreciation of modern methods. This has, perhaps, been unavoidable since, in the appointment of examiners, it has not always been possible to select experts. The truth is that, however well organized and equipped, the state boards cannot examine properly in the scientific branches, nor is there need to burden the students with additional examinations in anatomy, physi-

ology and chemistry. The Provincial and State Boards have done a great work for medical education on this continent, which they would crown and extend by doing away at once with all theoretical examinations and limiting the tests for the license to a rigid practical examination in medicine, surgery and midwifery, in which all minor subjects could be included.

IV. Parochialism in Medicine.

Of the parochial and more personal aspects of Chauvinism I hesitate to speak; all of us, unwittingly, as a rule, illustrate its varieties. The conditions of life which round us and bound us, whether in town or country, in college or institution, give to the most liberal a smack of parochialism, just as surely as we catch the tic of tongue of the land in which we live. The dictum put into the mouth of Ulysses, "I am a part of all that I have met," expresses the truth of the influence upon us of the social environment, but it is not the whole truth, since the size of the parish, representing the number of points of contact, is of less moment than the mental fiber of the man. Who has not known lives of the greatest freshness and nobility hampered at every turn and bound in chains the most commonplace and sordid, lives which illustrate the liberty and freedom enjoyed by minds innocent and quiet, in spite of stone walls and iron bars? On the other hand, scan the history of progress in the profession, and men the most illiberal and narrow, reeking of the most pernicious type of Chauvinism, have been among the teachers and practitioners of the large cities and great medical centers; so true is it, that the mind is its own place and in itself can make a man independent of his environment.

There are shades and varieties which are by no means offensive. Many excellent features in a man's character may partake of its nature. What, for example, is more proper than the pride which we feel in our teachers, in the university from which we have graduated, in the hospital at which we have been trained? He is a "poor sort" who is free from such feelings, which only manifest a proper loyalty. But it easily degenerates into a base intolerance which looks with disdain on men of other schools and other ways. The pride, too, may be in inverse proportion to the justness of the claims. There is plenty of room for honest and friendly rivalry between schools and hospitals, only a blind Chauvinism puts a man into a hostile and intolerant attitude of mind at the mention of a name. Alumni and friends should remember that indiscriminate praise of institutions or men is apt to rouse the frame of mind illustrated by the ignorant Athenian who, so weary of hearing Aristides always called the Just, very gladly took up the oyster shell for his ostracism, and even asked Aristides himself, whom he did not know, to mark it.

A common type of collegiate Chauvinism is manifest in the narrow spirit too often displayed in filling appointments. The professoriate of the profession, the most mobile column of its great army, should be recruited with the most zealous regard to fitness, irrespective of local conditions that are apt to influence the selection. Inbreeding is as hurtful to colleges as to cattle. The interchange of men,

particularly of young men, is most stimulating, and the complete emancipation of the chairs which has taken place in most of our universities should extend to the medical schools. Nothing, perhaps, has done more to place German medicine in the forefront to-day than a peripatetic professoriate, owing allegiance only to the profession at large, regardless of civic, sometimes, indeed, of national limitations and restrictions. We acknowledge the principle in the case of the scientific chairs, and with increasing frequency act upon it, but an attempt to extend it to other chairs may be the signal for display of rank parochialism.

Another unpleasant manifestation of collegiate Chauvinism is the outcome, perhaps, of the very keen competition which at present exists in scientific circles. Instead of a generous appreciation of the work done in other places, there is a settled hostility and a narrowness of judgment but little in keeping with the true spirit of science. Worse still is the "lock and key" laboratory in which suspicion and distrust reign, and every one is jealous and fearful lest the other should know of or find out about his work. Thank God! this base and bastard spirit is not much seen, but it is about, and I would earnestly entreat any young man who unwittingly finds himself in a laboratory pervaded with this atmosphere, to get out ere the contagion sinks into his soul.

Chauvinism in the unit, in the general practitioner, is of much more interest and importance. It is amusing to read and hear of the passing of the family physician. There never was a time in our history in which he was so much in evidence, in which he was so prosperous, in which his prospects were so good or his power in the community more potent. The public has even begun to get sentimental over him! He still does the work; the consultants and the specialists do the talking and the writing—and take the fees. By the work, I mean that great mass of routine practice which brings the doctor into every household in the land and makes him, not alone the adviser, but the valued friend. He is the standard by which we are measured. What he is we are; and the estimate of the profession in the eyes of the public is their estimate of him. A well-trained sensible doctor is one of the most valuable assets in a community, worth to-day, as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild. I can only refer here to certain aspects in which he is apt to show a narrow Chauvinism hurtful to himself and to us.

In no single relation of life does the general practitioner show a more illiberal spirit than in the treatment of himself. I do not refer so much to careless habits of living, to lack of routine in work, or to failure to pay due attention to the business side of the profession—sins which so easily beset him—but I would speak of his failure to realize, first, the need of a life-long progressive personal training, and, secondly, the danger lest in the stress of practice he sacrifice the most precious of all possessions his mental independence. Medicine is a most diffi-

cult art to acquire. All the college can do is to teach the student principles, based on facts in science, and give him good methods of work. These simply start him in the right direction, they do not make him a good practitioner—that is his own affair. To master the art requires sustained effort, like the bird's flight which depends on the incessant action of the wings, but this sustained effort is so hard that many give up the struggle in despair. And yet it is only by persistent intelligent study of disease upon a methodical plan of examination that a man gradually learns to correlate his daily lessons with the facts of his previous experience and with that of his fellows, and so acquires clinical wisdom. Nowadays it is really not a hard matter for a well-trained man to keep abreast of the best work of the day. He need not be very scientific so long as he has a true appreciation of the dependence of his Art on Science, for, in a way, it is true that a good doctor may have practice and no theory, art and no science. To keep up a familiarity with the use of instruments of precision is an all-important help in his art, and I am profoundly convinced that as much space should be given to the clinical laboratory as to the dispensary. One great difficulty is that, while waiting for the years to bring the inevitable yoke, a young fellow gets stale and loses that practised familiarity with technique which gives confidence. I wish the older practitioner would remember how important it is to encourage and utilize the young men who settle near them. In every large practice there are a dozen or more cases requiring skilled aid in the diagnosis, and this the general practitioner can have at hand. It is his duty, and failing to do so he acts in a most illiberal and unjust way to himself and to the profession at large. Not only may the older man, if he has soft arteries in his gray cortex, pick up many points from the young fellow, but there is much clinical wisdom afloat in each parish which is now wasted or dies with the old doctor, because he and the young men have never been on friendly terms.

In the fight which we have to wage incessantly against ignorance and quackery among the masses and follies of all sorts among the classes, *diagnosis*, not *drugging*, is our chief weapon of offense. Lack of systematic personal training in the methods of the recognition of disease leads to the misapplication of remedies, to long courses of treatment when treatment is useless, and so directly to that lack of confidence in our methods which is apt to place us in the eyes of the public on a level with empirics and quacks.

Few men live lives of more devoted self-sacrifice than the family physician, but he may become so completely absorbed in work that leisure is unknown; he has scarce time to eat or to sleep, and, as Dr. Drummond remarks in one of his poems, "He's the only man, I know me, don't get no holiday." There is danger in this treadmill life lest he lose more than health and time and rest—his intellectual independence. More than most men he feels the tragedy of isolation—that inner isolation, so well expressed in Mathew Arnold's line—"We mortal millions live *alone*." Even in populous districts the practice of medicine is a lonely road which

winds up-hill all the way and a man may easily go astray and never reach the Delectable mountains unless he early finds those shepherd guides of which Bunyan tells, *Knowledge, Experience, Watchful* and *Sincere*. The circumstances of life mould him into a masterful, self-confident, self-centered man, whose worst faults often partake of his best qualities. The peril is that, should he cease to think for himself, he becomes a mere automaton, doing a penny-in-the-slot business which places him on a level with the chemist's clerk who can hand out specifics for every ill, from the "pip" to the pox. The salt of life for him is a judicious skepticism; not the coarse crude form, but the sober sense of honest doubt expressed in the maxim of the sly old Sicilian Epicharmus, "Be sober and distrustful; these are the sinews of the understanding." A great advantage, too, of a skeptical attitude of mind is, as Green, the historian, remarks, "One is never very surprised or angry to find that one's opponents are in the right." It may keep him from self-deception and from falling into that medical slumber into which so many drop, deep as the theological slumber so lashed by Erasmus, in which a man may write letters, debauch himself, get drunk, and even make money—a slumber so deep at times that no torpedo-touch can waken him.

It may keep the practitioner out of the clutches of the arch enemy of his professional independence—the pernicious literature of our camp-followers, a literature increasing in bulk, in meretricious attractiveness and in impudent audacity. To modern pharmacy we owe much and to pharmaceutical methods we shall owe much more in the future, but the profession has no more insidious foe than the large borderland pharmaceutical houses. No longer an honored messmate, pharmacy in this form threatens to become a huge parasite, eating the vitals of the body medical. We all know only too well the bastard literature which floods the mail, every page of which illustrates the truth of the axiom, the greater the ignorance the greater the dogmatism. Much of it is advertisements of nostrums foisted on the profession by men who trade on the innocent credulity of the regular physician, quite as much as any quack preys on the gullible public. Even the most respectable houses are not free from this sin of arrogance and ignorant dogmatism in their literature. A still more dangerous enemy to the mental virility of the general practitioner is the "drummer" of the drug house. While many of them are good, sensible fellows, there are others, voluble as Cassio, impudent as Autolycus and senseless as Caliban, who will tell you glibly of the virtues of extract of the coccygeal gland in promoting pineal metabolism, and are ready to express the most emphatic opinions on questions about which the greatest masters of our art are doubtful. No class of men with which we have to deal illustrate more fully that greatest of ignorance—the ignorance which is the conceit that a man knows what he does not know; but the enthrallment of the practitioner by the manufacturing chemist and the revival of a pseudoscientific polypharmacy, are too large questions to be dealt with at the end of an address.

But there is a still greater sacrifice which many of us make, heedlessly and thoughtlessly forgetting that "man does not live by bread alone." One cannot practise medicine alone and practise it early and late, as so many of us have to do, and hope to escape the malign influences of a routine life. The incessant concentration of thought upon one subject, however interesting, tethers a man's mind in a narrow field. The practitioner needs culture as well as learning. The earliest picture we have in literature of a scientific physician, in our sense of term, is as a cultured Greek gentleman; and I care not whether the young man labors among the beautiful homes of Sherbrooke Street or in the slums of Caughnawauga, or in some sparsely settled country district, he cannot afford to have learning only. In no profession does culture count for so much, as in medicine, and no man needs it more than the general practitioner, working among all sorts and conditions of men, many of whom are influenced quite as much by his general ability, which they can appreciate, as by his learning of which they have no measure. The day has passed for the "practiser of physic" to be like Mr. Robert Levet, Dr. Johnson's friend, "obscurely wise and coarsely kind." The wider and freer the man's general education, the better practitioner is he likely to be, particularly among the higher classes to whom the reassurance and sympathy of a cultivated gentleman of the type of Eryximachus may mean much more than pills and potions. But what of the men of the type of Mr. Robert Levet or "Ole Docteur Fiset," whose virtues walk a narrow round, the men who do the hard general practices in the poorer districts of the large cities, in the factory towns and in the widely scattered rough agricultural regions—what, I hear you say, has culture to do with him? Everything! It is the bichloride which may prevent the infection and may keep a man sweet and whole amid the most debasing surroundings. Of very little direct value to him in his practice—though the poor have a pretty keen appreciation of a gentleman—it may serve to prevent the degeneration so apt to overtake the overworked practitioner, whose nature is only too prone to be subdued like the dyer's hand to what it works in. If a man does not sell his soul, if he does not part with his birthright of independence for a mess of pottage to the Ishmaelites who harrass our borders with their clubs and oppress us with their exactions, if he can only keep *free*, the conditions of practice are nowhere incompatible with St. Paul's noble Christian or Aristotle's true gentleman.*

Whether a man will treat his professional brethren in a gentlemanly way or in a narrow, illiberal spirit is partly a matter of temperament, partly a matter of training. If we had only to deal with one another, the difficulties would be slight, but it must be confessed that the practice of medicine among our fellow-creatures is often a testy and choleric business. When one has done his best or when a mistake has arisen through lack of special knowledge, but more particularly when, as so often happens, our heart's best sympathies have been engaged,

to be misunderstood by the patient and his friends, to have evil imputed and to be maligned, is too much for human endurance and justifies a righteous indignation. Women, our greatest friends and our greatest enemies, are the chief sinners, and while one will exhaust the resources of the language in describing our mistakes and weaknesses, another will laud her pet doctor so indiscriminately that all others come under a sort of oblique condemnation. It is hard to say whether, as a whole, we do not suffer just as much from the indiscriminate praise. But against this evil we are helpless. Far otherwise, when we do not let the heard word die; not to listen is best, though that is not always possible, but silence is always possible, than which we have no better weapon in our armory against evil-speaking, lying and slandering. The bitterness is when the tale is believed and a brother's good name is involved. Then begins the worst form of ill-treatment that the practitioner receives—and at his own hands! He allows the demon of resentment to take possession of his soul, when five minutes' frank conversation might have gained a brother. What more joyful in a small or large community than to see the brethren dwelling together in unity? The bitterness, the rancor, the personal hostility which many of us remember in our younger days has been very largely replaced by a better feeling, and while the golden rule is not always as it should be, our code of ethics, we have certainly become more charitable the one toward the other.

To the senior man in our ranks we look for an example, and in the smaller towns and country districts, if he would remember that it is his duty to receive and welcome the young fellow who settles near him, that he should be willing to act as his adviser and refuse to regard him as a rival, he may make a good friend and perhaps gain a brother. In speaking of professional harmony, it is hard to avoid the trite and commonplace, but neglecting the stale old chaps whose ways are set and addressing the young, to whom sympathy and encouragement is so dear, and whose way of life means so much to the profession we love, to them I would give the motto of St. Ambrose. It is told of St. Augustine, after having decided to become a Christian, that, when he visited St. Ambrose at dinner with the venerable father and his brethren, one motto above all others on the wall of the refectory caught his eye and heart, "If you cannot speak well of your brother, keep silence!"

With our History, Traditions, Achievements and Hopes, there is little room for Chauvinism in medicine. The open mind, the free spirit of science, the ready acceptance of the best from any and every source, the attitude of rational receptiveness rather than of antagonism to new ideas, the liberal and friendly relationship between different nations and different sections of the same nation, the brotherly feeling which should characterize members of the oldest, most beneficent and universal guild that the race has evolved in its upward progress—these should neutralize the tendencies upon which I have so lightly touched.

I began by speaking of the art of detachment as that rare and precious quality demanded of one

*Sir Thomas Browne.

who wished to take a philosophical view of the profession as a whole. In another way and in another sense this art may be still more precious. There is possible to each one of us a higher type of intellectual detachment, a sort of separation from the vegetative life of the work-a-day world—always too much with us—which may enable a man to gain a true knowledge of himself and of his relations to his fellows. Once attained, self-deception is impossible, and he may see himself even as he is seen—not always as he would like to be seen—and his own deeds and the deeds of others stand out in their true light. In such an atmosphere pity for himself is so commingled with sympathy and love for others that there is no place left for criticism or for a harsh judgment of his brother. “But these are Thoughts of things which Thoughts but tenderly touch,” as that most liberal of men and most distinguished of general practitioners, Sir Thomas Browne, so beautifully remarks; and it may be sufficient to remind this audience, made up of practical men, *that the word of action is stronger than the word of speech.*

AN ADDITIONAL CASE OF TUMOR OF THE BRAIN, LOCALIZED CLINICALLY AND BY THE RÖNTGEN RAYS.

By CHARLES K. MILLS, M. D.,
of Philadelphia.

Clinical Professor of Nervous Diseases in the University of Pennsylvania; Neurologist to the Philadelphia Hospital.

RÖNTGEN RAY INVESTIGATION

By G. E. PFAHLER, M. D.,

Assistant Chief Resident Physician, Philadelphia Hospital.

OPERATION

By J. B. DEEVER, M. D.,

Surgeon-in-Chief to the German Hospital.

In the *Philadelphia Medical Journal* for February 8, 1902, the writer, in association with Dr. Pfahler, reported a case of tumor of the brain located clinically and by Röntgen ray investigation, this being the second case located during the life of the patient by such investigation. In the following case a shadow of the tumor was obtained, this coinciding with its position as determined by careful clinical study. The tumor, which was removed entire, was the largest I have ever seen taken from the living human brain. The operation was performed in two stages, as at the time of the first operation, owing to the profuse bleeding, it was deemed imperative to stop in order that the patient might not die from hemorrhage; and the case is of interest not only from the standpoints of the clinical localization of the tumor and of its yielding a shadow to the Röntgen rays, but also because of the means adopted at the second operation for controlling hemorrhage—the regulated compression of both carotids before and during the operation. The patient died a few hours after the operation; nevertheless my experience with this case only makes me more decided in my convictions that operation should be resorted to in most cases of brain tumor when the neoplasm can be located in a region accessible to the surgeon's knife. This tumor was of enormous size, but it was encapsulated, and if it had been removed earlier the result in all probability would have been different. Much erosion of

the inner table of the skull had taken place, and this was accompanied by increased vascularity, the dangerous hemorrhage seeming to come chiefly from the diseased bone, which disease had evidently come on gradually as the tumor increased in size.

The patient came to me with a letter from Dr. A. B. Gilliland, of Van Wert, Ohio. She was 21 years old. The apparent beginning of her symptoms dated back three years, when, while going down stairs one day, she felt her left leg give way. She was not unconscious but was numb in the left half of her body and her speech was somewhat thick, the condition lasting about an hour. From this time on she had attacks of weakness and numbness in the left arm, leg and trunk and sometimes in the face and tongue. At about the end of the first year she began to have very severe and almost continuous headaches, having had them off and on previously. She gradually lost power in the left arm and leg and became more and more awkward in using them.

Her paternal grandmother died of cancer of the breast; her paternal aunt of cancer of the stomach and a first cousin of her father also probably of pyloric cancer.

In April, 1901, it was noticed that she was losing her sight, at first in the left and soon after in the right eye. In a month or two she was entirely blind. The report of Dr. S. D. Risley, which shows atrophy with some remnants of a former optic neuritis, is as follows: The pupils react promptly to light and shade. The motility of both eyes is normal. The ophthalmoscope shows far advanced atrophy of both optic nerves, with small arteries and veins and much remaining infiltration of the disc, probably a late stage of choked disc. The swelling is almost gone in the right eye, leaving a chalky white surface and sharp nerve margins in a portion of its circumference. On the left side the nerve is still swollen to 3 D., but the arteries are small and the swelling obviously subsiding.

For a time her headaches were better, but during the last six months became worse again, although not nearly so bad as two years ago. She also had a history of spells of dizziness and vomiting at irregular intervals.

Examination showed marked hemiparesis in the left upper and lower extremity, rather more marked in the former. The left side of the face was slightly paretic. The patient had a distinctly hemiparetic gait. Her left arm was held slightly flexed at the elbow, fingers and thumbs of the left hand also being carried partially flexed. The left arm could be lifted with difficulty to the level of the shoulder. Movements of flexion and extension of fingers, hand, forearm and arm could be performed, but were accomplished feebly and awkwardly. The grip of the left hand was extremely weak.

The movements of both the left extremities were distinctly ataxic. Attempts at using the arm evoked an ataxic tremor.

The deep and superficial reflexes were exaggerated on the left side. Knee jerk was much increased on this side. The front tap phenomenon, ankle clonus, patellar clonus and the Babinski response were also present on the left.

Cutaneous sensation was tested for touch, pain and temperature, and was found to be normal in both left lower and upper extremities. Testing on the sole of the foot for power of recognizing whether a pencil or other object was placed lengthwise or crosswise, she answered correctly about seven times out of ten on the left, correctly and promptly on the right. When dice, small marbles and other objects were grasped by the toes, first of the left foot and then of the right, her recognition of their form and size was slightly better on the right than on the left. Testing the stereognostic sense on the left hand, she recognized several objects correctly, as a marble and a small pencil but more slowly than in the right; other objects, as a dice, a coin and the finger she failed to recognize correctly. Close investigation showed impairment in motor power in the fingers of the left hand, so that she had much difficulty in grasping and manipulating the objects, raising the question of how far the astereognosis present was of a pure type or was in part or altogether a mechanical or pseudoastereognosis due to motor impairment.

Hearing was acute on both sides.

Smell was obtunded on both sides.

At one examination taste was lost on the left and de-

laid on the right on the anterior part of the tongue; on the posterior part of the tongue, salt was tasted promptly on the left as well as on the right. A second series of examinations regarding her taste showed that she recognized a sweet substance on the anterior part of the tongue on the left side as well as on the right, and that she recognized salt on the posterior part of the tongue on the left side as well as on the right. Examination for taste, in other words, seemed to give somewhat varying results, the last examination showing its retention and the first its absence in part.

The patient's psychical condition as brought out by several protracted and somewhat tiresome examinations was excellent. Her power of sustained attention was good. She differentiated between various tests as to taste and cutaneous sensation. Her memory was good. She was unemotional.

The patient was seen in consultation by Dr. F. X. Dercum, Dr. James Hendrie Lloyd, Dr. William G. Spiller, Dr. J. W. McConnell and Dr. W. J. Hearn. After several careful examinations my view was confirmed that a tumor was present, probably of large size and extending from the prefrontal into the postparietal region.

Arrangements were made with Dr. G. E. Pfahler to have a Röntgen ray investigation. The report of Dr. Pfahler is as follows:

"The skiagraph made in the case of Miss H. July 8, 1902, shows the normal details of the skull as follows: The scalp, the outer and inner tables of the skull, the occipitoparietal and frontoparietal sutures, the frontal, ethmoidal and sphenoidal sinuses, the roof of the orbits, the sella turcica, the external auditory meatus and the mastoid cells. It is important to obtain the above details before reliance can be placed upon any abnormal shadow. An abnormal shadow about three inches in diameter and irregular in outline is found lying directly across the region of the fissure of Rolando. This was interpreted before the operation as a shadow of the tumor. The middle meningeal artery and its branches are seen to pass over the anterior portion of this shadow. The inner table of the skull is seen to be disorganized over the region of the tumor. This fact was not interpreted before the operation but can be seen in the negative. This disease of the bone has probably rendered the shadow in the region of the tumor less definite than it otherwise would have been. The negative was made on a hot, damp day, which conditions are unfavorable. The negative, however, shows good details but is not strong and therefore many of the delicate shadows cannot be reproduced in print. A white cross indicates the central portion of the tumor-shadow."

The negative obtained by Dr. Pfahler was examined by Drs. Spiller and Dercum and by the writer, and all concurred with Dr. Pfahler in the view that a shadow of the tumor was obtained, as indicated in the above report. The shadow, while distinct, was not very marked.

While it was clear that nothing could be done to restore the patient's sight, as the case was one of a progressively enlarging neoplasm, it was probable that in the near future she would have had complete paralysis with convulsions, increase of headache and other distressing symptoms. I therefore, although at first somewhat reluctantly, advised operation for the removal of the tumor. The patient was admitted to the German Hospital of Philadelphia under the care of Dr. John B. Deaver.

On July 17, 1902, she was carefully prepared for operation. The central fissure was located. It was agreed if possible to make an osteoplastic operation, using the Stellwagen trephine. This valuable instrument, the invention of Dr. T. C. Stellwagen, Jr., of Philadelphia, has been described in a recent publication by Prof. J. Chalmers DaCosta, of the Jefferson Medical College.* It consists of a shaft

with a quadrilateral hole through which is passed a piece of steel which fits into a plate furnished with pins for fixing the plate to the scalp and skull. The projection bar or shaft has a gear-hole in its outer or cutting end, into which can be fitted a knife for incising the scalp and later a saw for cutting the bone. For details regarding this device and the methods and advantages of using it the paper of Dr. DaCosta can be consulted.

A point was chosen for the insertion of the pins of the Stellwagen trephine in front of the line of the central fissure, one and a half inches from the mesal line of the skull.¹ The knife for cutting the scalp was attached to the movable arm of the trephine, which was set so as to give a radius of one and one-quarter inches. This would have given an opening of two and one-half inches anteroposteriorly and about two inches from above downward, the operation being so planned as to have the hinged portion of the scalp and bone flaps below. As soon as the incision in the scalp was completed, a profuse hemorrhage occurred. The hemorrhage seemed to come largely through the bone, and, as it could not be fully controlled, it was determined to raise the scalp and trephine rapidly to explore. A trephine opening $\frac{3}{4}$ of an inch in diameter was made, the hemorrhage becoming more alarming. The button of bone was found to be much eroded and corrugated on its inner surface. It was evidently abnormal, having been eroded by a growth or having taken part in adjacent malignant disease. It was concluded that it would be better to pack the wound so as to control the hemorrhage and postpone the completion of the operation, determining later as to the advisability of a second operation.

The patient did well after the wound was closed and soon recovered much of her former strength.

Further consultations were held and it was finally decided to reopen the wound and, after new measurements, to enlarge the opening with trephine and rongeur to such an extent as to allow the removal of the large tumor which was supposed to be present.

Owing to the hemorrhage which occurred at the previous operation and to the probability that it would recur and again threaten the life of the patient while on the table, it was decided to take additional advantage of the new method of temporarily closing the carotid arteries in order to control hemorrhages during cranial operation, recommended by Dr. George Crile, of Cleveland, Ohio.* It has been shown by this surgeon that both carotids may be temporarily clamped with especially constructed appliances for a period varying from a few minutes to twenty-four and forty-eight hours, the operation being conducted with great care and with complete aseptic or antiseptic precautions. For a description of the clamps employed, and for technical details, the paper of Crile should be consulted. Crile reports a series of cases in which temporary clamping of the carotids was employed, including operations for the removal of a fibrosarcoma of the roof of the mouth, of a congenital tumor of the neck, of the floor of the mouth and of the submaxillary, parotid and other glands; for excision of the tongue, removal of portions of the jaw, excision of carcinoma involving the parotid duct, and other important operations of the mouth, neck and head. No case of brain tumor or other intracranial operation is included in his list. It is probable that our case is the first in which the method of temporarily compressing the carotids has been used in an intracranial operation, or at least in an operation for brain tumor.

After clamping both common carotids, the flap of the previous operation was thrown back and a new trephine opening was made, half an inch back of the former opening, counting from periphery to periphery of the openings.

The measurement showed that the trephine opening made at the first operation was probably situated about half an inch in front of the central fissure, so that the anterior limit of the second opening was at about the line of this fissure. The rongeur was then used to chew out the bone between the two trephine openings and the entire opening was enlarged, most backward and upward, but also to some extent in all directions. When complete, the opening was about two and one-half to three inches in the anteroposterior direction and a little less from above downward.

1. Dr. Stellwagen was present and kindly assisted in the manipulation of the instrument.

Crile, Geo., *Annals of Surgery*, Vol. 35, No. 4, April, 1902.

*DaCosta, J. C., *Annals of Surgery*, Vol. 35, No. 7, July, 1902

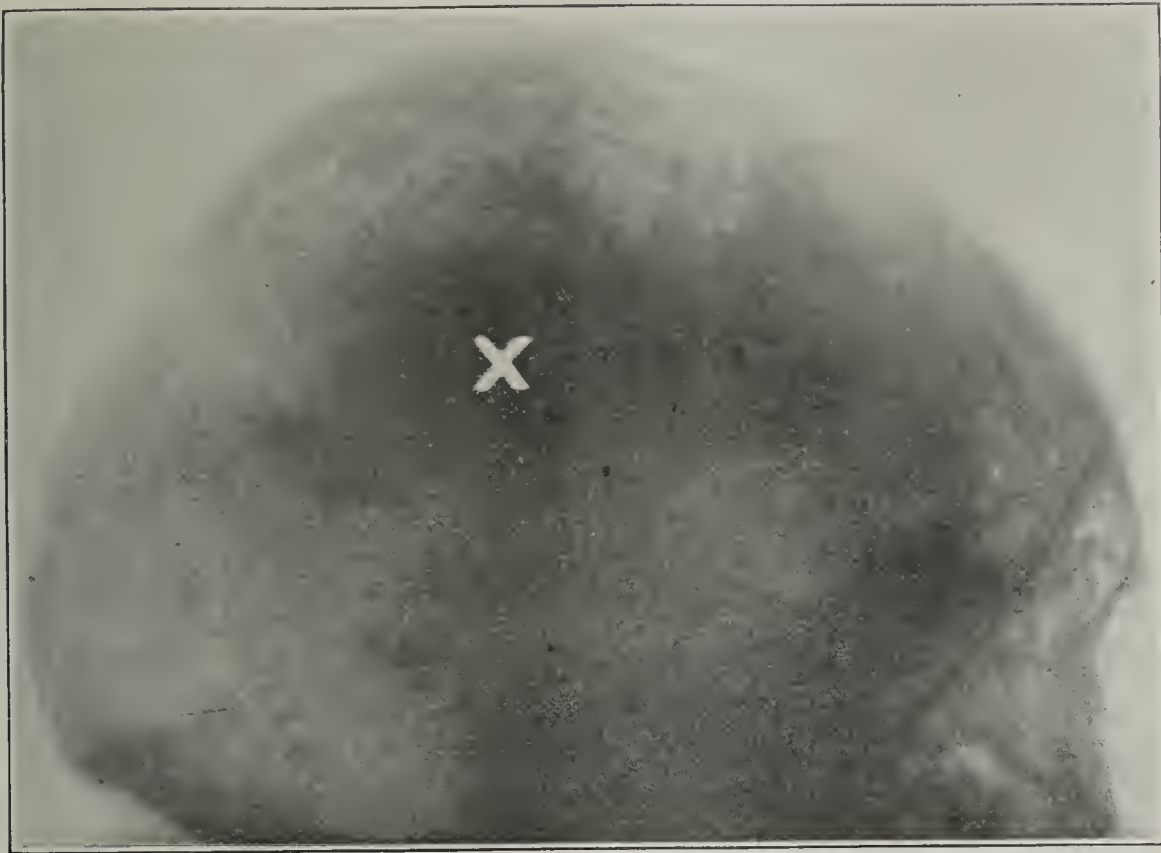


Fig. 1.—Skiagraph showing the position of the tumor. The deepest portion of the shadow is in the position of the cross, which corresponds to a point just in front of the central fissure. The other shadows shown below and posterior to the one indicating the tumor are the ones usually observed in cranial skiagraphs, and are described in the text.

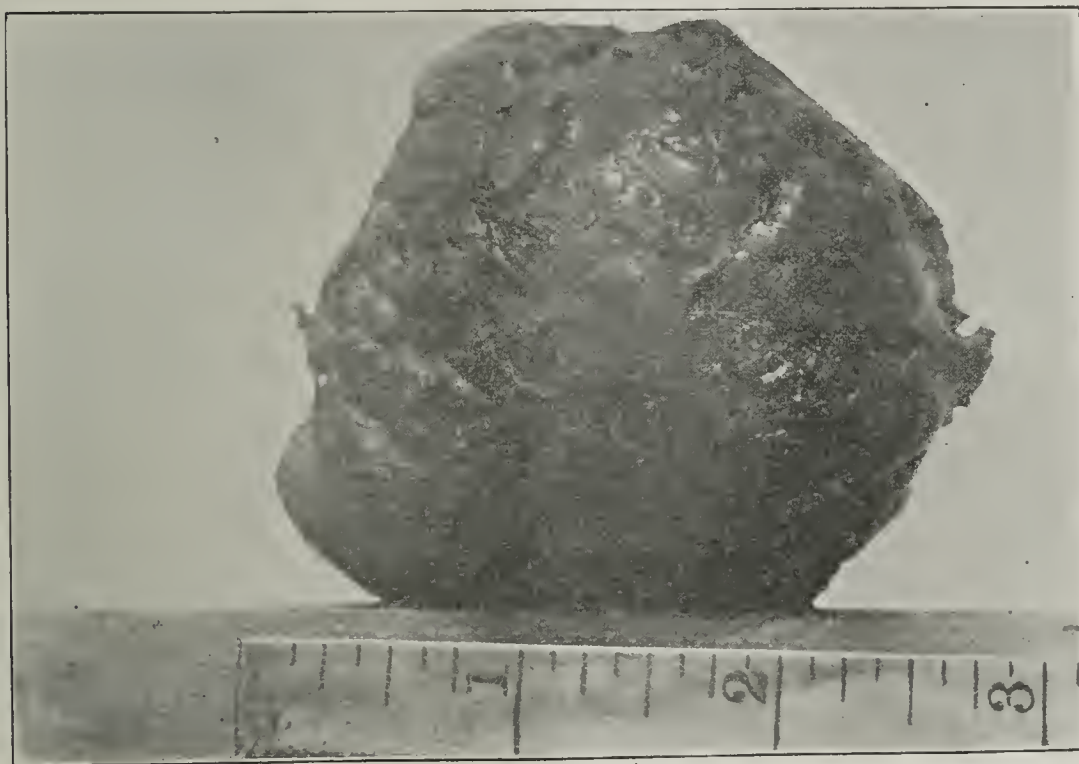


Fig. 2.—Photograph of the tumor, natural size after several days' immersion in Müller's fluid. The upper rough surface, where the dura was torn away, is shown.

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Nothing was visible on the outer surface of the dura. It was noted, however, that there was little or no pulsation, which it was thought might have been partly due to the clamping of the carotids. Palpation of the dura with the finger gave a sensation unlike that felt when normal brain substance is present within the membranes. At the posterior limits of the opening the sensation was as if a shallow cyst might be present, while in other directions the tissues were tense and resistant.

While some hemorrhage had occurred, the bleeding was not serious and was readily controlled. The dura was now incised along the anterior, superior and posterior border of the opening, when a large tumor was found entirely filling the opening and extending beyond it under the ledge of bone. It presented to the eye a dark purplish appearance. Passing the fingers under the bone, the mass was quickly enucleated. It proved to be an encapsulated growth, three inches in length and of an ovoid shape. A photograph of the tumor is shown in the illustration, Fig. 2. The tumor was slightly adherent to the dura. It did not infiltrate the brain substance. It had probably grown from the pia and had slowly made for itself a bed in the brain substance, at the same time causing erosion of the skull. I have several specimens of the skull in my possession, all of which show much erosion and irregularity. At several points the skull was thinned to perhaps one-third or one-fourth of its ordinary thickness. A fragment of the tumor was examined microscopically by Dr. Spiller, whose report shows that it was a spindle-cell sarcoma.

Each stage of the operation was performed with precision and rapidity. Every preparation had been made in advance and no unnecessary time was lost. The whole operation was completed in about one hour, this including some time which was taken to transfuse the patient with saline solution toward the end of the operation. During the last half of the operation the patient's condition several times became somewhat alarming, but after transfusion and injection of atropine and later of strychnine, her condition improved. I noticed also what I have seen in several cases of operation for brain tumor, that the general condition of the patient improved immediately after the mass was entirely removed.

The wound, after packing with sterile gauze, was closed and the patient rallied so that she was removed to her room in the hospital. When seen by me one hour after the operation, her pulse was comparatively good and she was beginning to recover consciousness. Hypodermic medication, the application of heat and all other usual measures were taken to maintain life, but later she began slowly to lose ground and died between 3 and 4 hours after the operation.

This case presented many points of unusual interest, but I shall not go into lengthy comments, rather leaving the bare record to speak for itself.

The study of this case is not of much value in clearing up the mooted problems regarding motor, sensory and stereognostic localization, as the tumor was of such size and so located as to involve both the motor and the postparietal regions. Astereognosis, ataxia and paresis were all present, as shown by a careful study of the case, but as the separate regions of stereognostic perception, the so-called muscular sense and the representation of movements were all involved, no conclusive inferences can be drawn. Astereognosis, ataxia and paralysis, while well marked, were partial, which is probably to be accounted for by the fact that, although the lesion was a large one, it was not subcortical and produced its effects by compression and gradual destruction of the tissues compressed. A point of physiological interest in connection with the study of the case is the entire absence of impairment of cutaneous sensibility, although the postparietal region was distinctly involved. This may be accounted for either on the theory held by some that the limbic lobe is the sole cortical seat of the represen-

tation of cutaneous sensibility, or that a lesion must be, in part at least, subcortical in order to cause persisting cutaneous anesthesia, or, finally, that the lesion must be bilateral in the postparietal region in order to bring about its effect.

I believe that we are getting on surer ground with regard both to the diagnosis and the operative treatment of cases of tumor of the brain. In addition to our increased knowledge regarding the localization of cerebral functions, this and the former case reported by me, as well as the case of Church*, show that the Röntgen ray method has a practical place in the diagnosis of intracranial neoplasms. I am satisfied, as I have said in previous papers, that the gravest dangers to life in operations for brain tumors are from hemorrhage and prolonged operation. Lack of success in removing tumors is also due largely to the fact that the operations are rarely performed at as early a date as they should be and that the trephine openings are usually too small. I conclude, therefore, (1) that, as soon as a brain tumor is clearly diagnosed, if presumably it is in an accessible area, operation should at once be performed; (2) that a Röntgen ray investigation should be added to the other methods of making a diagnosis; (3) that large openings in the skull should always be made; (4) that the operation should be osteoplastic in order not to leave a permanent opening in the skull and to add to the chances of maintaining the vitality of the bone flap; (5) that preparation should always be made to perform a Crile operation for temporary clamping of the carotids as soon as hemorrhage becomes threatening and (6) that the operation in some cases should be done in two stages, the propriety of this procedure being determined by the circumstances attending the first operation.

LEUKOCYTOSIS IN LEAD-WORKERS.

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of Philadelphia.

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During the past much attention has been devoted to a study of the changes that developed in the erythrocytes (basic, granular or punctiform degeneration) both in lead-workers and those showing evidence of lead intoxication.

My attention was first directed to the leukocytes in this condition in 1897, when I noticed that many of the patients admitted to the Philadelphia Hospital, from the various "lead works" of the city, showed a leukocytosis ranging from 10,000 to 20,000 cells per cmm. It has been my privilege to study sixteen cases in the Philadelphia Hospital, three in the Medico-Chirurgical Dispensary and five from private practice.

Of these twenty-four cases two were painters, one a plumber who used lead in the caulking of joints, another a lapidary who used an emery pencil, which he repeatedly placed to his lips while at work, and the remainder had been employed for a variable time in either "paint" or "lead works."

*American Journal of the Medical Sciences, Feb., 1899, n. s. v. 117.

The longest period any patient had worked before symptoms developed was twelve years; the shortest six weeks. Most of them, however, were affected in from four to nine months after entering the lead works.

The variety of work appeared to exercise but little etiological influence, but in all cases in which special care had been taken to cleanse the hands thoroughly before the taking of food, symptoms developed late, but were always severe. For example: The man who had worked twelve years without any discomfort died of general paralysis a few days after the first intestinal cramps were noticed.

Three of the cases gave a leukocyte count below ten thousand and were 4,000, 7,200 and 8,000 respectively. The remainder gave counts varying between ten thousand and twenty-five thousand five hundred. The number of red cells and the percentage of hemoglobin bore no constant relation to the number of leukocytes present. In the case showing 7,200 leukocytes the patient had been under treatment for several weeks. In the other cases, in which the leukocyte count was below 10,000, the history gave that of lead poisoning some months or years before, which suggests the possibility that leukocytosis may develop in connection with the primary condition only.

R. C. Cabot, in the study of fifteen cases with eighteen blood examinations, gives an average leukocyte count of 12,922, the maximum number being 23,400, the minimum 4,500. In my series the average number of leukocytes was 12,600; the greatest number being 25,500, the smallest 4,000.

A moderate reduction in the number of erythrocytes to 3,500,000 is the rule, yet in severe cases they may fall below this number. One of my series gave a count of 2,700,000. In a few instances, however, the red cells are found to be above the normal, as was observed in four cases of my series which showed 4,760,000, 5,090,000, 4,940,000, 5,500,000 cells per cmm. respectively.

The hemoglobin was found to fluctuate between 32 and 85 per cent. No constant ratio was found to exist between the number of red cells and the percentage of hemoglobin, as is shown in the four cases of polycythemia above cited, in which the respective amounts of hemoglobin were 46, 32, 79, and 85 per cent. In the latter case the exposure to lead had been of short duration and the symptoms mild; the line about the teeth, however, was fairly distinct.

Smears made from the different cases, and fixed by heat, were alike in displaying a rather high grade of poikilocytosis, the erythrocytes staining feebly in many instances; many appearing as mere shadows, while in others certain cells stained irregularly. Overstained cells were uncommon, macrocytes and microcytes numerous and nucleated red cells an occasional finding; of these, normoblasts were the commoner.

The following is a report of the blood examination, with brief remarks as to the general clinical pictures, of nine of the cases of this series, of which eight showed basic degeneration of the red cells.

CASE 1.—S. M., male, aged 42 years, first began working in a paint factory six months before consulting his physician,

when there were present constipation, intestinal cramps, obstinate vomiting and a distinct line on the gums. The red cells were found to be 3,335,000, white cells 14,000; hemoglobin 60%. A differential leukocyte count gave polymorphonuclears 68.5%; lymphocytes 16.5; large mononuclears 7; transitionals 3.5; myelocytes 4; eosinophiles 0.5. One megaloblast and one normoblast were seen while counting four hundred leukocytes. Six days later, when the patient was able to go about the street, the red cells were found to be 3,200,000; white cells 11,800; hemoglobin 69%. Eighteen days after the first symptoms the red cells numbered 3,100,000; white cells 15,200; hemoglobin 68%. A differential leukocyte count showed polymorphonuclears 64.5; lymphocytes 20.5; large mononuclears 9.0; transitionals 1.5; myelocytes 1.5; eosinophiles 3%. On the sixteenth day of his illness the red cells were 3,714,000, white cells 13,400; hemoglobin 59%. A differential count of the leukocytes gave polymorphonuclears 68.5; lymphocytes 14.5; large mononuclears 10.0; transitionals 2.5; myelocytes 2.5; eosinophiles 2%. One normoblast seen while counting 400 leukocytes. There were observed marked irregularity in the staining of the erythrocytes, moderate poikilocytosis, many macrocytes and microcytes and cells showing basic degeneration.

CASE 2.—P. C., male, aged 33 years; had been employed in a lead works for six months in 1897, when he was forced to give up the work on account of intestinal colic. He returned to the same variety of work three months ago and now complains of loss of sleep, anorexia, cramp-like pains in the abdomen and weakness of the arms and hands. There are present wrist drop and a line on the gums. The red cells were found to be 2,930,000; white cells 8,000; hemoglobin 50%. A differential leukocyte count gave polymorphonuclears 62.5; lymphocytes 26.5; large mononuclears 4.0; transitionals 2.0; eosinophiles 2.50; myelocytes 2.50%. Ten megaloblasts and four normoblasts were seen while counting four hundred leukocytes. Many of the red cells stained as mere shadows and poikilocytosis was excessive, as was also the basic degeneration.

CASE 3.—J. C., born in Ireland, aged 42 years, had been employed in a lead works for twelve years, without any symptom of lead intoxication. During the last two weeks there were slight intestinal pains. There were tremor, vomiting, constipation, pallor, great prostration and a decided line on the gums at the time of my first visit; twenty-four hours later he developed extensive paralysis and lived but a few hours. The red cells were 4,940,000; white cells 20,800; hemoglobin 87% per cent. A differential leukocyte count gave polymorphonuclears 88.5; lymphocytes 7.5; transitionals 2.0; myelocytes 2.0; eosinophiles 0.0. The red cells stained well and were fairly normal in outline. Smears stained with carbol thionin showed areas of basic degeneration in the red cells.

CASE 4.—M. L., male, aged 54 years, a painter. The line on the gums was distinct and there had been cramp-like pains in the abdomen. The red cells were 5,500,000; white cells 11,200; hemoglobin 79%. A differential leukocyte count gave polymorphonuclears 71.5; lymphocytes 21.5; large mononuclears 5.0; transitionals 1.0; eosinophiles 1.0. No nucleated red cells were seen but cells showing basic degeneration were common.

CASE 5.—J. S., male, aged 44 years, has been employed in a paint factory during the past twelve years. There were now a line on the gums, decided tremor and wild delirium. The red cells were 3,810,000; white cells 13,200; hemoglobin 32 per cent. A differential count of the leukocytes gave polymorphonuclears 65.5; lymphocytes 21.0; large mononuclears 8.0; transitionals 1.0; myelocytes 1.5; eosinophiles 3.0 per cent. Red cells stained feebly and many of them showed the basic degeneration.

CASE 6.—J. H., male, aged 34 years, had been working in lead during the past three months. Five days before coming to the clinic he noticed mild intestinal pain but was able to work. Had an attack of lead colic some years before. The red cells were 5,090,000; white cells 7,200; hemoglobin 37 per cent. A differential leukocyte count gave results quite different from those previously reported. Polymorphonuclears 48.0; lymphocytes 40.0; large mononuclears 6.0; transitionals 2.5; myelocytes 1.0; eosinophiles 2.5. There was some irregularity as to the size and staining of the red cells, and many of them showed basic degenera-

tion. Two megaloblasts were seen while counting four hundred leukocytes.

CASE 7.—R. D., male, aged 42 years, an Austrian, was admitted to the medical wards of the Philadelphia Hospital, but on account of not speaking English no history could be obtained. There was evidence of severe intestinal pain and a line on the gums. The blood examination was not made until the patient had been under treatment for three weeks, at which time the red cells were 3,700,000; white cells 7,000; hemoglobin 37 per cent. A differential count of the leukocytes gave polymorphonuclears 63.0; lymphocytes 28.5; large mononuclears 4.5; transitionals 2.0; myelocytes 2.0; eosinophiles 0.0. Four normoblasts and one megaloblast were found while counting two hundred leukocytes. The red cells showed a moderate grade of poikilocytosis.

CASE 8.—J. J., male, aged 30 years, who had been employed for some months in the caulking of lead-joints, came to the clinic complaining of moderate loss of strength, anorexia and sleeplessness. There was a distinct line on the gums. The red cells were found to number 2,770,000; white cells 4,000; hemoglobin 51 per cent. A differential count of the leukocytes gave polymorphonuclears 60.0; lymphocytes 30.0; large mononuclears 3.5; myelocytes 4.0; transitionals 2.0; eosinophiles 0.5. Four normoblasts were seen while counting four hundred leukocytes. Poikilocytosis was well marked, as was also the basic degeneration. The patient did not return to the clinic and efforts to locate him were of no avail. He volunteered the information that he had had a similar attack three years before, which makes the second case in this series in which the patient had suffered a previous attack of lead intoxication, and in both these cases was noted the absence of leukocytosis; yet the destructive changes in both the erythrocytes and the hemoglobin were equally well marked.

CASE 9.—A. N., male, aged 42 years, had been employed in a paint factory during the past four months. There was a line on the gums and he had been confined to his bed for several days as a result of intestinal pain. The red cells were found to number 4,760,000; white cells 25,500; hemoglobin 46%. The differential leukocyte count showed polymorphonuclears 58.0; lymphocytes 33.0; large mononuclears 3.25; transitionals 1.5; myelocytes 3.25; eosinophiles 1.0. Five normoblasts and one megaloblast were seen while counting four hundred leukocytes. All the red cells stained feebly and a high grade of poikilocytosis was present. The basic degeneration, also, was marked.

ON THE DOSAGE IN RADIOTHERAPY.

By GEORGE G. HOPKINS, A. M., M. D.,

of Brooklyn, New York.

The at present unknown way in which this therapy deals with disease, may any day come to be understood. The recent discovery of their ability to photograph electrical discharges by Lord Armstrong and Mr. Kinraide should lead us to hope that X-ray phenomena may yet be photographically demonstrated. Should there prove to be a difference in the current effect varying in accordance with methods of energizing and the exhaustion of the tube, a decided advance will have been made in our efforts to arrive at a definite dosage in the cure of disease by the Röntgen ray.

This subject of dosage is the great difficulty to be overcome by the X-ray therapist. It is earnestly hoped that all those who are working in this field of medicine will concentrate their energies on this vital point and aid in its solution. Could we accomplish this object, a vast stride would be made in this new therapy, removing it entirely from the empirical and placing it in the category of exact and scientific treatment. This step determined, the rest will follow more easily; but until we can arrive at some very definite method of deter-

mining dosage, we are, in a measure, groping in the dark with a very powerful remedy.

That tubes vary goes without saying; but that the same tube, energized by different sources of energy, will present varied conditions of fluorescence, is not so generally recognized, but is an undoubted fact. With the same energizing machine, in varying states of the surrounding atmosphere, the tube will behave very differently at different times.

Those who have used both the coil and the static machine as sources of energy cannot have failed to notice that the tube will vary less in hardness and last much longer if the energizing source is a static machine, than when such energy is derived from a coil.

The X-ray therapist is striving to find a method for keeping the tube at a uniform vacuum, which would mean a more uniform dosage than we have yet been able to secure. All the so-called self-regulating tubes on the market are unsatisfactory.

The best means we have to-day for determining the condition of a tube as to vacuum is to watch it constantly with a fluoroscope.

That the tube energized by a static machine is more constant in its vacuum and action is proved to my mind conclusively. I have used a low vacuum tube so energized 225 hours in the aggregate, covering a period of 9 months, the exposures varying from 8 to 15 minutes each, in the treatment of patients; and at the end of that period I could not discover any variation in the radioscopical appearances. Yet with a tube to all appearances identical and constructed by the same makers, I have been unable to get half a dozen hours' uniform work. This emphasizes the importance of keeping on hand a number of tubes supposedly of the same vacuum and of the same make, so that our treatment may be conducted throughout under as nearly as possible uniform conditions as to dose.

In my article on X-ray burns (in the *Philadelphia Medical Journal*) it was shown after an exhaustive search of the literature on the subject that tubes energized by the static machine current had much less to answer for in the way of burns than those energized by the coil. Subsequent investigations and my own experience have served only to strengthen my position on this point. For myself I have been so fortunate as never to have caused a single patient any inconvenience beyond a slight blush of the epidermis, giving rise to a mild itching sensation; and these few cases have returned to normal condition in 48 hours from the time of infliction. Tanning of the skin in some cases has been very marked, but never causes any inconvenience of the treatment.

Dr. Carl Beck has formulated the best rules that I have seen laid down on the initial dosage with new patients. By observing his precautions we can feel sure that very little harm can come to our patient while instituting our treatment with this powerful remedy, which, in careless hands, has done harm where good was sought.

This note is put forth in the hope that it may lead

many of my fellow-laborers in this new field of therapeutic research to make common cause in establishing a uniform rule of dosage in the treatment of hitherto incurable diseases.

THE JOURNAL OF NERVOUS AND MENTAL DISEASE.

May, 1902. (Vol. 20, No. 5.)

1. Muscular Factors Concerned in Ankle Clonus.
S. WEIR MITCHELL.
2. Two Unusual Forms of Clonus: Toe Clonus and Lateral Ankle Clonus. JOHN K. MITCHELL.
3. A Case of Cholesteatoma of the Brain.
CHARLES LEWIS ALLEN.
4. A Case of Primary Degeneration of the Pyramidal Tracts. WILLIAM G. SPILLER.
5. Report as to the Condition of a Man Through Whose Right Cerebrum a Bullet Passed From Before Backward Eleven Years Ago. THEODORE DILLER.
6. Report of a Case of Fracture of the Base of the Skull followed by Meningitis and Organic Hemiplegia, Associated with Coma and Catalepsy Lasting Eighteen Months. ARTHUR CONKLING BRUSH.

2.—Mitchell reports a case in which lateral ankle clonus could be usually produced by giving the great toe a slight, sharp inward push—and releasing it. The muscles being all in an unnaturally tense state and overirritable, this started the contractions, just as pushing the foot upward smartly starts some of the posterior leg muscles into clonic activity. In ordinary ankle clonus the opposing force is supplied by the hand, and in this side-wise movement this element of necessary opposition is wanting: the muscles themselves supply it. The excursion is so short and the muscles which might produce it so small and deeply set that it is difficult to be certain of the special muscles concerned. With the foot in extreme flexion, which was its usual position, the tibialis anticus shared in the production of a lateral movement. The peronei are more certainly concerned, but whether all united in it or whether it is due to the peroneus longus alone, could not be made out. Another important small point of interest was that the toes, which were small and imperfectly developed, were always somewhat rigidly half flexed, the ungual phalanges bent upon the pedal. In an effort to straighten them or to try whether they could be straightened, a toe clonus was started. It was slow, not more than three to five times a second, and was exhausted by 8 or 10 contractions. If it was excited by carefully pushing up the ungual phalanges with a force too slight to alter the position of the foot, the clonic movement was limited to the toes; if the push was stronger, so that the push moved on the ankle, ankle clonus appeared. The toe-motion was performed by the interossei, the flexor brevis and longus not coming into play. [T. M. T.]

4.—Spiller has studied in the last 3 or 4 years pathological material from four cases of amyotrophic lateral sclerosis, and he has been able to trace degeneration above the pons in one case, and in that case the degeneration of the motor cortex was so intense that he believes that by the method of Marchi we might be able to define the extent of the cortical motor area, inasmuch as amyotrophic lateral sclerosis is essentially a disease of the motor system. In the case reported the author was able to obtain a motor area corresponding quite closely to that described by Monakow and others. The ascending frontal convolution was more degenerated than the ascending parietal, and this finding is especially interesting in connection with the recent results obtained by Schaffer in his study of brains from cases of paretic dementia and by Sherriington and Grünbaum in their recent experiments on the brains of monkeys. These studies seem to show that the motor functions are represented in the ascending frontal convolution much more than in the ascending parietal convolution. [T. M. T.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending September 19, 1902:

SMALLPOX—United States.

		Cases.	Deaths.
CALIFORNIA:	San Francisco.....	Aug. 31-Sept. 7	4
COLORADO:	Denver.	Aug. 30-Sept. 6	2
DISTRICT OF COLUMBIA:	Washington.	Sept. 17.	2
FLORIDA:	Escambia Co., Pensaloca included . . .	Sept. 6-13.	3
ILLINOIS:	Chicago.	Sept. 6-13.	1
KANSAS:	Wichita.	Aug. 24-31.	1
KENTUCKY:	Covington.	Aug. 30-Sept. 6	6
MASSACHUSETTS:	Boston.	Sept. 6-13.	7
	Chelsea.	Sept. 6-13.	1
	Fitchburg.	Aug. 30-Sept. 6	1
MISSOURI:	St. Joseph.	Sept. 6-13.	1
NEW JERSEY:	Newark.	Sept. 6-13.	3
	Passaic.	Aug. 30-Sept. 13	2
NEW YORK:	New York.	Sept. 6-13.	6
OHIO:	Cincinnati.	Sept. 5-12.	3
	Cleveland.	Sept. 6-13.	84
	Hamilton.	Sept. 6-13.	1
PENNSYLVANIA:	Altoona.	Sept. 6-13.	1
	Johnstown.	Sept. 6-13.	9
	McKeesport.	Sept. 6-13.	16
	Philadelphia.	Sept. 6-13.	6
	Pittsburg.	Sept. 6-13.	25
	Reading.	Sept. 8-15.	5
SOUTH CAROLINA:	Charleston.	Sept. 6-13.	3
TENNESSEE:	Memphis.	Sept. 6-13.	1
WISCONSIN:	Milwaukee.	Sept. 6-13.	1

SMALLPOX—Foreign.

BRAZIL:	Pernambuco.	Aug. 1-15.	11
ECUADOR:	Guayaquil.	Aug. 23-30.	3
FRANCE:	Paris.	Aug. 16-23.	1
GIBRALTAR:		Aug. 24-31.	1
GREAT BRITAIN:	Liverpool.	Aug. 23-30.	14
	London.	Aug. 23-30.	11
INDIA:	Bombay.	Aug. 13-19.	4
	Calcutta.	Aug. 9-16.	2
RUSSIA:	Moscow.	Aug. 16-23.	2
	Odessa.	Aug. 24-31.	4
SPAIN:	St. Petersburg.	Aug. 16-23.	12
	Barcelona.	Aug. 16-30.	4

YELLOW FEVER.

COLOMBIA:	Panama.	Sept. 1-8.	4
ECUADOR:	Guayaquil.	Aug. 16-23.	1
MEXICO:	Coatzacoalcas.	Aug. 30-Sept. 6	4
	Orizaba.	Sept. 7. Epidemic.	
	Progreso.	Sept. 12.	1
	Vera Cruz.	Aug. 30-Sept. 13	45

CHOLERA—Insular.

PHILIPPINE ISLANDS:	Manila.	July 12-19.	250
	Provinces.	To July 19, 15,555	11,691

CHOLERA—Foreign.

CHINA:	Amoy.	July 27-Aug. 2	40
		cases estimated.	
	Hongkong.	Aug. 2-9.	6
	New Chwang.	July 19-Aug. 2	175
EGYPT:	Alexandria.	Aug. 5-27.	17
	Cairo.	July 22-Aug. 27	913
INDIA:	Bombay.	Aug. 13-19.	1
	Calcutta.	Aug. 9-16.	4
JAPAN:	Ehime Ken.	To Aug. 18.	39
	Formosa.	To Aug. 18.	213
	Fukuoka Ken.	To Aug. 18.	671
	Hioga Ken.	To Aug. 18.	12
	Hiroshima Ken.	To Aug. 18.	2
	Kagawa Ken.	To Aug. 18.	606
	Humamota Ken.	To Aug. 18.	11
	Kyoto Ken.	To Aug. 18.	14
	Nagasaki Ken.	To Aug. 18.	90
	Oita Ken.	To Aug. 18.	12
	Okayama Ken.	To Aug. 18.	1268
	Osaka Ken.	To Aug. 18.	96
	Saga Ken.	To Aug. 18.	88
	Shimane Ken.	To Aug. 18.	5
	Tokushima Ken.	To Aug. 18.	1
	Tokyo Ken.	To Aug. 18.	5
	Wakayama Ken.	To Aug. 18.	1
	Yamaguchi Ken.	To Aug. 18.	90
JAVA:	Batavia.	July 27-Aug. 2	32
RUSSIA:	Chabarowsk.	July 28-Aug. 7	11
	Olowjannaja.	To Aug. 8.	8

PLAGUE—United States.

CALIFORNIA:	San Francisco.	Aug. 31-Sept. 7	7
	Chinese.		3

PLAGUE—Foreign.

CHINA:	Hongkong.	Aug. 2-9.	34
INDIA:	Bombay.	Aug. 13-19.	35
	Calcutta.	Aug. 9-16.	9
JAPAN:	Yokohama.	Aug. 9-16.	16

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8

VOL. X. NO 14

OCTOBER 4, 1902

\$5.00 PER ANNUM

The Statistics of Cervical Carcinoma.—The recently published statements of men of such national repute as Frederick, of Buffalo; Baldy, of Philadelphia; McMonigle, of San Francisco, and others, concerning the results of their operations upon cervical cancer must command the close attention of all gynecologists. Our knowledge of the extreme fatality attendant upon this condition has been a matter of gradual development. Twenty years ago it was taught in the medical schools that of the patients suffering from cancer of the cervix, if seen early enough, a cure could be wrought by high amputation of the cervix. The constant and almost inevitable recurrence after this method of treatment led to an abandoning of the operation, and resulted in the general adoption of the operation of total extirpation of the uterus. While with this advance there followed a diminished frequency of early recurrence, sooner or later the disease reappeared, and other steps were required to insure, if possible, a nonrecurrence of the growth.

Then arose the school of theorists who claimed that the recurrence was due to an invasion of the lymph glands of the pelvis and that, in order to arrest the progress of the disease absolutely, these glands must be totally eradicated. In prolonged operations efforts were made to trace the lymph channels to their finest radicles, and the broad ligaments and pelvic contents were, as far as possible, removed *in toto*. It required but a couple of years to prove the futility of these methods. The disease still recurred, and it dawned upon the minds of the theorists, as it had already been clearly evident to the more practical, that no one could say when the glands had all been removed. The final surrender of the operators followed two years ago. At the St. Paul meeting of the American Medical Association Baldy stated that all of his cervical cancer patients were dead. Following this bold leader the others fell into line and admitted that their results had not been as satisfactory as they would wish them to be. At Saratoga Frederick made the alarming but probably correct statement that the condition was a fatal one, and supported his avowal by

the statistics of McMonigle, of San Francisco, who, in 481 hysterectomies for carcinoma, had had 479 deaths from the primary operation or from recurrence. Such is the present status of affairs. To all intents cancer of the uterine cervix is, with the exception of an extremely small percentage of doubtful cases, an incurable and rapidly fatal condition.

In the present number of the *Journal* we are publishing Dr. Baldy's latest statements on the subject of uterine cancer. These were made by him in his admirable address before the Pennsylvania State Medical Society at Allentown.

Inoperable Nature of Pulmonary Tuberculosis.

It was our pleasure in our last issue to comment on the paper of Dr. DeForest Willard on the surgical treatment of pulmonary tuberculosis. Dr. Willard is inclined to believe that with improvement in our technique pneumonotomy may become a useful operation in the early period of apical cavity formation. The latest number of the *Journal of the American Medical Association* contains a paper on the same subject by Dr. Horace J. Whitacre, whose article is a systematic presentation of the inadvisability of surgical intervention in this condition. He presents a table showing the distribution of lesions in a series of 978 cases, and in less than one per cent. only was one apex alone involved. The surgical results obtained by the excision of tuberculous foci will depend entirely upon the completeness of the removal of the diseased process, and from a careful study of the statistics presented Whitacre concludes that the sum total of the cases that will be inoperable from the viewpoint of excision is 98 per cent. In the remaining two per cent. it might be possible, although not probable, that the entire tuberculous process might be removed. As to the possibility of draining cavities in this series of 978 cases, studied from the point of view of their location and relation with bronchi, there was not a single one in which relief would have been possible by this means. Whitacre also considers the applicability of the treatment of pulmonary tuberculosis by compression, by means of filling the pleural cavi-

ty with nitrogen after the method of Murphy. Certain selected cases may be rationally treated by this means, yet the arguments against its employment are certainly strong ones. There are many cases in which the pleural cavity is in part, or wholly, obliterated, and it would be impossible to inject the nitrogen gas in sufficient quantity and diffusion to cause a collapse of the lung.

Thoracoplasty is the removal of the greater part of a great number of ribs over the diseased section of the lung to enable the chest wall to fall in on the lung and the cavities to cicatrize. It is based on the same general principle as the nitrogen method, but Whitacre believes that the extensive operative procedure involves great risks to life with scarcely a hope of improving the percentage of cures obtained by the open-air treatment. This author has discussed the possibilities of surgical intervention in a masterly fashion, and his conclusions bear the ring of sound reasoning and dispassionate, if adverse, judgment.

The President's Case.—Quite naturally the American people have been alarmed by the news that President Roosevelt has had to undergo two operations as a result of his fall from a coach a few weeks ago. The daily press has, we fear, unduly exercised the already apprehensive public mind over this matter. The first so-called "operation" consisted simply in the aspiration of a collection of serum over the tibia, the outcome of a bruise. The fluid reaccumulated, as it is apt to do, and an incision which would establish freer drainage was deemed advisable and was done by Surgeon-General Rixey, of the Navy. No official statement signed by the attending surgeons has been given to the public, but we have received every assurance that the President's trouble is in no sense serious. There is a tendency both of the press and public to magnify any illness in prominent persons, and even to discredit professional assurances to the contrary, and recent experience, in the case of the late President McKinley, has not done much to put a stop to gloomy prognostications. We feel, however, that in this instance there can not be the slightest cause of uneasiness. The accumulation of serum was small, apparently above the periosteum, and on neither occasion was it necessary to give a general anesthetic. Healing is never rapid in such cases, but if the President can be kept reasonably quiet, and he has already proved himself a good patient, he will probably be perfectly well and able to perform all his duties and to take his usual bodily exercise in a short time.

Judge Harvey's Address.—The meeting of the Pennsylvania State Medical Society at Allentown

this year was the occasion of a very happy address of welcome by former Judge Harvey, a leading member of the Lehigh County bar. We take pleasure in presenting this address in this number of the **Journal**, and wish to congratulate the Lehigh County Medical Society on having made such an excellent choice of spokesman for that occasion. The fact that the speaker had formerly sat upon the judicial bench with distinction gives all the more weight to his very admirable suggestions to medical men who may occasionally be called into court.

The two professions of medicine and law should certainly be on cordial terms, although the exigencies of legal proceedings do sometimes put them in an attitude of temporary antagonism. There is possibly something that each can teach the other, and for our part we can assure Judge Harvey that his well-intended and well-expressed admonitions will be received in the best spirit. His address was highly complimentary to the medical profession, and as a literary effort was most praiseworthy.

We doctors must plead guilty to having sometimes too much the spirit of the advocate when we get into court, but the example set us by our legal brethren may be partly responsible for that. As to the failure to agree on scientific questions, we must sometimes cry "*mea culpa!*"—but even courts do the same, and one court has been known to reverse the judgment of another court on essential principles of law.

As old Hippocrates said, "Judgment is difficult"—but there will be no difference of opinion among our readers about the merits and the felicity of Judge Harvey's address.

The Marriage of Lepers.—The Attorney-General of Hawaii, Hon. E. P. Dole, is credited in a recent newspaper report from Honolulu with the expression of some rather extraordinary views on the subject of the marriage and procreation of lepers. His opinion was given before a Senatorial commission, and he is quoted as having said:

"This is the only country where leprosy, existing the world over, is segregated. I would be loath to take the last bit of comfort from these people by breaking up their family ties. The children of leprous parents are not always tainted, as I understand it, and I think it would be too harsh a measure to take away the little happiness that remains to these unfortunate people."

We do not quite understand Mr. Dole as quoted in this passage. It is one thing to break up family ties already existing, and another thing to permit the establishment of entirely new family ties. We imagine there is no authority under the United States laws to break up family ties on account of leprosy, except such interruption of such ties as

comes necessarily from segregating such patients, and even this might be a nice legal question. The marriage, on the other hand, of a man or woman after the onset of leprosy is a procedure that must be exceedingly repugnant to the judgment of most persons. We do not know what laws, if any, exist on the subject in Hawaii or in other countries, but we have no hesitation in saying that such marriages are against a wise public policy.

We suppose that, in fact, no special law could be framed, in this country particularly, to prohibit a man or woman to marry because of a disease.

The chances for a leper to marry a healthy person must be very slim, and therefore the victims of the disease might be all the more inclined to marry among themselves, especially where they are segregated, as in Hawaii. Such marriages, and the offspring of such marriages, are not pleasant subjects to contemplate, and they should be prevented by lawful means in every leper colony when possible.

While leprosy can no longer be regarded as an hereditary disease, the chances are very great that the offspring in many instances would become infected. Moreover, many lepers, not being able to support themselves, or to mingle in ordinary society, are of a class in which marriage and the procreation of children should be strictly discouraged. Mr. Dole's opinion is founded on sentiment, and does more credit to his heart than to his head. If he means that the leper colony should throw open its gates and encourage intermarriage and a free mingling of inmates with their families, he might almost as well advocate that the colony be abolished.

The Importance of a Tentative Diagnosis.—It is trite to say that our patients come to us not to enable us to perfect ourselves in the knowledge of disease processes, but for the purpose of getting relief from their ailments. In the process of accomplishing this very desirable end we find that the knowledge of two things is essential. First, of the symptomatology and nature of the disease process and, second, of the nature and effects of remedies. Now, unfortunately, there are a few men in this country who either from lack of energy, from natural indolence or from insufficient education are unable or unwilling to exhaust every possible effort to discover the nature of the disease processes. In fact, it can fairly be said that it is the exception for a case to be exhaustively studied, at least with reference to every possibility in connection with the diagnosis, and we mean by this, bacteriological and chemical investigations of all the secretions and of the blood, in addition to a most thorough physical examination. Granting these

limitations, either of our own making or imposed upon us, it becomes necessary to determine what our obligations actually are, and we think that one of these obligations is to exhaust, as far as it can possibly be done, the means at our command for making a correct diagnosis. These means may be extremely inadequate, and yet, if they are the best we can obtain, we are not excused on account of their inadequacy from the duty of determining as nearly as possible the disease from which our patient is suffering, even if the determination partakes more of the nature of a guess than of inductive reasoning. And it is only after such a tentative diagnosis that we are justified in suggesting any palliative or curative measures. Nothing has a greater tendency to increase a man's skill in this respect than the habit of writing down, after each examination, the diagnosis that seems to him most likely, no matter how many question-marks he puts after it, nor how frequently he changes this diagnosis at subsequent examinations. The very necessity of putting in concrete form what is too often a hazy idea, sharpens the faculties and stimulates the mental processes. And to further this self-training the effort to diagnose all cases is most valuable, and the practice of being satisfied with the diagnosis of a little cold, located somewhere in the body, should be banished from medical practice.

Our Fellowships and Scientific Progress.—It has recently come to our notice that a well-qualified man with considerable experience in scientific research, who has already made important contributions to our knowledge of physiological chemistry, was compelled to give up a fellowship, and with it his work, for the reason that the endowment was not enough to pay his living expenses. An occurrence of this kind, and it is by no means isolated, calls forth serious reflections concerning the wisdom of our entire system of fellowships. The object for which fellowships are provided is to stimulate scientific research and attract able men to particular lines of work. It is also understood that the recipient must devote his entire time to his researches, for science is a jealous mistress and does not tolerate divided attention. Consequently, the fellowships practically close all other avenues of income, and if the recipient is, as is generally the case, of humble means, he must manage to live on an income far below that received by an office clerk. A fellowship amounting to 500 dollars is barely sufficient to pay board, and, as a result, it will be sought either by a novice who is engaged in postgraduate work or one who is already encumbered by teaching and other pursuits. In either case the object for which the

fellowship was awarded will not be attained. The very best kind of scientific work can only be done by men who are, in the first place, well qualified for the particular line of research, and, second, by those who can devote their entire attention to the work. Such men must be fairly well provided for, and a mere pittance of 500 dollars will not do it. If fellowships are to mean anything, they should be large enough to attract the best men in the field, and not serve as a convenient side-income to a postgraduate student. It were far better to have fewer fellowships, each large enough to pay a good man for his work.

St. Luke, the Beloved Physician.—The *Lancet* calls attention to the death of the Rev. William Kirk Hobart, rector of Killanny in Ireland, who was a recognized expert in Greek medical literature. The Rev. Mr. Hobart was the author of a treatise on "The Medical Language of St. Luke; a Proof from Internal Evidence that the Gospel According to St. Luke, and the Acts of the Apostles, Were Written by the Same Person, and that the Writer was a Medical Man." This book was published twenty years ago, and attracted much attention, and was naturally of special interest to members of the medical profession.

Regarded merely as a literary production, the Gospel of St. Luke is quite generally considered to be the best written and most interesting of the four Gospels. Renan, the eminent scholar and critic, who could not justly be accused of a prejudiced opinion in such a matter, said, according to the *Lancet*, that the Gospel of St. Luke was the "loveliest book in all literature." That its author was a physician has often been claimed, but this claim has probably never been based on such a wide and deep literary criticism as that which was supplied by the Rev. Mr. Hobart. This scholar was profoundly versed in Greek medical literature, although he was himself apparently not a medical man.

As for St. Luke's medical education and his qualifications as a physician, nothing practically is known. The state of medical education in his time was vastly different from what prevails now. The evidence is largely such as Hobart derived from an internal study of the writings attributed to the apostle—writings which, of course, were not essentially medical. As to the exact date, and even the exact authorship, of the book which goes by St. Luke's name, the higher critics are not entirely agreed, but that its author, whoever he was, had some medical culture, seems evident.

A Sign of the Times.—The fact that the faculty

of a rather well-known medical college in one of the large cities of the middle West has decided not to reopen its doors this fall, is an interesting sign of the times. We are informed that the faculty gives as a reason for its action the fact that the attendance has fallen off so much since the enactment of a State law, requiring rigid entrance examinations, that it no longer pays to run the college.

We judge that this will be the fate of a number of the smaller medical colleges with the advance in the requirements for a medical education. Some will go out of existence and some others may possibly join their fortunes. The tendency in all industries, as well as in all sorts of enterprises, is toward concentration. This is coincident with a more advanced civilization. We may deplore it in some instances, but we must nevertheless recognize that it is inevitable and often beneficial. Looked upon merely from the commercial standpoint (from which standpoint we do not like to look upon it), we must see that the proper education of physicians has come to be an elaborate and expensive process. This is the law of evolution, just as is that other law of the survival of the fittest. The American people will be content with nothing but the best, and the day is coming, or has even now come, when the best medical colleges are to be conducted not for gain, but for the efficient education of physicians.

Mountain Sickness.—The *Popular Science Monthly* for October contains an interesting paper by Professor Alja Robinson Crook on his ascent of Mount Orizaba in Mexico. This is the highest mountain in North America whose summit has been reached by mountain climbers. It lies one hundred and fifty miles southeast of the city of Mexico and less than sixty miles from the Gulf. According to several measurements, it attains a height of more than 18,000 feet.

Professor Crook made the ascent in August, and with comparative ease. He was prevented by a blinding snowstorm from completing the last three hundred feet, but his effort was a success in every other way. The time required was about two days. The night was passed in a cave amid wintry surroundings, although the adventurers had only just left a tropical country.

For the last three thousand feet Professor Crook suffered much annoyance from the so-called "mountain sickness." This was characterized by headache, pain at "the top of the spinal cord," palpitation of the heart, dyspnea, inability to eat even a cracker or piece of chocolate, and evidently some nausea. Olives and lemon juice were the only things he could swallow. There was no bleeding from the

ears and nose, as so often popularly reported. This *Mal de Montagne* was less severe when clouds obscured the sun than in the glare of sunlight. Inflammation of the eyes was caused by this glare of sunlight on the snow. So rare was the atmosphere that even turning over when lying down was an exertion. The climbers descended in safety, and no lasting ill effects were experienced.

Royalty in the Rôle of Scientist.—His Majesty the King of Portugal has been engaged since 1896 in making a methodical and rational scientific study of the sea that bathes the coast of Portugal. From *The Independent*, September 18, 1902, we learn that the King has written a "Bulletin of Scientific Expeditions" from an early copy of which, obtained from official sources, that magazine gives an outline of the work accomplished. The King's first expedition was made on a small yacht, which he found inadequate for the purpose, so that subsequently he obtained two larger vessels for continuing the work; the second of which was of 650 tons. In addition, he has established, at Cascaes, a well-organized laboratory with aquaria. The work has included observations of the habits of the marine birds as well as studies of the inhabitants of the sea. It is of interest to know that comprehensive scientific studies have been carried on in the presence and under the personal supervision of the highest public official of a country, the King. Such activity will serve as a good example not only to the young people of Portugal but of the world, so far as the facts become generally known. It should turn the attention of many who are prone to believe that law and politics are the legitimate avenues for the activities of Royalty, to the fact that scientific investigation offers an attractive field for earnest work. The resources at the command of the King of even such a small country as Portugal should insure thoroughness in every detail.

A Good Example.—The case of the English physician, Dr. W. T. Law, who has recently had to defend himself in an action brought against him for malpractice, is of particular interest to the whole medical profession. Dr. Law was successful in his defence, but, of course, was put to a very great expense. The annoyance and anxiety of defending such a suit must also have been great. Some of Dr. Law's friends, at the initiative of Dr. Paramore, raised a fund to defray his pecuniary expenses, and this fund was handed over to him at a meeting held for that purpose under the presidency of Sir William S. Church. The chairman delivered a congratulatory address to Dr. Law, and Dr. Paramore alluded to the brilliant results of a subscription list

which amounted to \$3500. Altogether this is a most gratifying spectacle, and might serve as an example all the world over. A better way yet probably would be for all physicians to join in some insurance scheme against such suits for malpractice; but so long as doctors remain uninsured, and are subject to such gross attacks, it is gratifying to know that there is enough *esprit du corps* abroad in the profession to lead physicians to stand up for one of their number when he has unrighteously been put upon his defence.

Current Comment.

GRATITUDE.

Dr. Osler relates an anecdote of Dr. Benjamin Winslow Dudley, of Lexington, Ky., who was one of the most famous lithotomists of his day. No surgeon in the South or West had such a reputation, and he, more than any one else, built up the fame of the Transylvania school. In 1837 a poor lad with stone was brought to him from one of the distant settlements. The operation was successful, and when the parents asked Dr. Dudley for his fee, he, knowing their circumstances, refused to take anything. The young lad was deeply impressed by the generosity of the great surgeon, and made a resolve that if ever he became rich the fee should be paid. About two years ago one of the heirs of Dr. Dudley had a letter from W. G. Saunders, of Iowa, stating that he was anxious to make arrangements to pay a long-standing indebtedness, and asked if a fee of \$500 would be suitable for the operation of lithotomy performed on him by Dr. Dudley in 1837. Last year the executors of Mr. Saunders wrote that in a codicil of his will directions were given to pay the fee with interest, and they had much pleasure in handing over the sum of \$2,390.

St. Louis Medical Review.

INSURING AGAINST DISEASE.

The *San Francisco Chronicle* states that over 8,000,000 persons in Germany are insured against illness. Regarding the amount of insurance on King Edward, it is said that if he had died at the time of the operation, British companies would have lost \$100,000,000. "There is no such thing in the United States as insuring a second person, and if such a line of business ever was thought of by our great leaders in insurance, the exceedingly narrow escape of the British companies has chilled the notion. It is to be hoped that our home companies will never indulge in such insurance, no matter how great the profit. So doing tempts murder and anarchy. A great many thoughtful moralists are objecting to child insurance, on the ground that it induces cruel mothers to neglect or directly kill their infants for immediate gain."

Correspondence.

A PRESERVATIVE SOLUTION.

By J. A. SHELLENBERGER, M. D., of Philadelphia.
To the Editor of the *Philadelphia Medical Journal*:

In the *Journal* for September 20th., Dr. Randle C. Rosenberger says one is constantly being asked what is the best solution for keeping interesting pathological specimens. Some years ago I preserved a goodly number of specimens very satisfactorily in the following solution:

Chloride of sodium 3iv
Pulv. alumn 3r
Hydrargyri bichloridi gr. ii
Aq. Pur: O ii

M.—In very delicate preparations double the amount of water.

Reviews.

Treatise on Diseases of the Skin. For the Use of Advanced Students and Practitioners. By Henry W. Stelwagon, M. D., Ph. D., Clinical Professor of Dermatology in the Jefferson Medical College and Woman's Medical College, Philadelphia, etc., etc. Oct. pp. 1115. Philadelphia and London. W. B. Saunders & Co., 1902.

Dr. Stelwagon's long experience as a teacher of dermatology and as a writer on dermatological subjects would naturally lead to the expectation that sooner or later he would publish some comprehensive work which should embody his views and set them forth in a systematic manner.

This expectation has been more than fulfilled in the volume before us. It is not merely a text-book intended for the use of students, but it is a complete presentation, within the limits which the author has marked for himself, of the special branch of medical science of which it treats. No such work has ever before appeared in this country, and only a few foreign treatises on dermatology are so complete in design and scope.

Dermatology has made great advances within the last few years in the clinical description of new diseases and in the study of affections of the skin in their relation to the various general morbid processes. These advances are marked in Dr. Stelwagon's work, some being adopted and incorporated in the text and others referred to in the copious notes and references which are intended to aid those wishing to make an especial study of some given point. The author takes a decidedly conservative standpoint with respect to classification, the definition of individual diseases and other matters still under discussion, a position which is perhaps the best in a work intended for students as well as practitioners.

The introductory portion of the work, that which treats of the anatomy and physiology, and particularly of the general symptomatology, etiology, pathology, and the remarks on treatment are treated with unusual care and fullness. The elaborated remarks under General Diagnosis may be hoped, as Dr. Stelwagon says in his preface, to prove of substantial aid in surmounting some of the difficulties of this apparently most difficult and confusing part of cutaneous medicine.

Coming to the examination of the work more in detail, some idea of the ground to be covered may be obtained by a comparison of the number of individual diseases described in such a standard treatise as that of Duhring, published 20 years ago, with those included in the present work. Duhring's work included 134 distinct affections, while in this volume no fewer than 200 are included.

Some of these are entirely new affections, while others are formed by the differentiation of diseases formerly included under a single designation. The study of the new growths of the skin and of cutaneous parasitism may be mentioned as particularly characteristic of recent dermatology. Dr. Stelwagon's work is a complete cyclopedia of our present knowledge of skin diseases, and is invaluable as a work of reference and as a starting point for future investigation. The very full and careful bibliography which accompanies the description of each individual disease, makes this work peculiarly adapted for this purpose, while at the same time it may be noted that the references are carefully selected and do not overburden the text with trifling citations.

It is natural in a practical work as the present to turn to the commoner affections, as acne, eczema and the like to find if the author has added to the common stock of knowledge regarding the management of such affections. In doing so one need not fear disappointment. Before this is done, however, attention must be called to the chapter on general, and, particularly, to that on local treatment. This should by no means be neglected by the student desirous of gaining an insight into the management of cutaneous disease. The use of water, baths, soaps, dusting powders, ointments, pastes, oils, etc., is lucidly explained, and the principles upon which the various dressings, caustics, mechanical or operative measures are employed are fully developed.

Acne is one of the most common affections of the skin for which the general practitioner is consulted, and yet how often is the search for aid in the ordinary text-books disappointing. Here, we have the varieties of acne represent-

ed by excellent photographs and the general principles of the treatment fully explained with a sufficient number of formulæ of tried value, to give an excellent basis for intelligent treatment.

Whoever knows the treatment of eczema knows half the therapeutics of practical dermatology. Dr. Stelwagon describes this most important affection most thoroughly, the while taking a more conservative view of the etiology of the disease than that assumed by controversialists over the parasitic and other theories of its etiology. He gives a careful account of the affection from a clinical standpoint, and his directions for its management and cure have the value which we should naturally expect from a practitioner of such extensive experience.

Particular attention must be called to the magnificent illustrations. No work on dermatology has yet appeared with the wealth of illustration which Dr. Stelwagon has employed. The fine photographs culled from his own extensive collection and the numerous contributions from those of his colleagues, make this work an atlas and text-book combined.

Finally, we must call attention to the almost profuse acknowledgement of every aid rendered in the work and of every contribution to the literature of the subject on the part of the humblest worker in the field and particularly of the author's fellow-countrymen. This generous appreciation of the labors of others will not surprise those who know the author's broad-minded and courteous character. It finds its culminating expression in the beautiful dedication of the whole work to Professor Louis D. Duhring, the leader, and we may almost say the founder, of scientific dermatology in this country, whose services are here commemorated at the head of a work which we must acknowledge to be a source of legitimate pride to the profession of this city and to American dermatologists. [A. V. H.]

The Theory and Practice of Infant Feeding, with Notes on Development. By Henry Dwight Chapin, A. M., M. D., Professor of Diseases of Children at the New York Post-Graduate Medical School and Hospital; Attending Physician to the Post-Graduate, Willard Parker and Riverside Hospitals; Consulting Physician to the Randall's Island Hospital. New York, William Wood & Company. 1902.

Unlike all other works on infant feeding, Dr. Chapin's book is a novelty. He has omitted pages of formulæ for preparing substitute foods, supposed to be suitable for infants of different ages. He has, on the contrary, well described the fundamental principles of growth, nutrition and digestion during infancy, and has left the application of these principles to the physician. He follows American authorities, because the greatest advances in dairying and knowledge of the chemistry of milk have been made in America. The book is divided into four parts, on the underlying principles of nutrition, raw food materials, practical feeding and the growth and development of infants. Part III most interests the physician.

Though a milk mixture may, by chemical analysis, seem suitable for an infant, it may be physiologically indigestible. Dr. Chapin lays stress upon the importance of regular nursing and of keeping the nursing mother in good physical condition; then, of obtaining a clean, fresh cow's milk, should artificial feeding become necessary. The bacteriology, preservation and tests of milk and the various infant foods are briefly described. He believes that anything aside from breast milk acts as a foreign body in the infant's stomach and may cause digestive disturbances. His method of preparing the infant's food by using "top-milk," the only technical portion of the book, is fully explained. All suggestions for changing the infant's food under varying conditions depend upon this simple mode of preparing milk mixtures. He also prefers a dextrinized cereal decoction as the diluent in the preparation of a milk mixture.

The especial value of the volume lies in his concise exposition of the principles to be considered by a physician attending an infant. After a careful study of these principles, the intelligent man should be able to find the correct food for any infant, normal or abnormal. Errors are few, although, in mentioning the different cities in which there are Walker-Gordon milk laboratories, it is strange that Philadelphia should have been omitted. Finally, he gives the differences in weight and growth of infants at various ages, and the methods of estimating both. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Gwynedd Home for Convalescent Children.—Mrs. H. P. McKean and Mrs. F. E. Bond have bought a house at Gwynedd, Pa., to be used as a convalescent home for children from nearby hospitals who are not yet strong enough to return home. The house is to be remodeled and will be ready for use early in December.

University of Pennsylvania Medical School.—Dr. Charles H. Frazier has just been appointed acting Dean, filling the position formerly held by Dr. John Marshall. The deans of the different faculties are now enabled to direct their attention to strictly educational matters and questions of policy, through the adoption of a system whereby much of the purely routine and clerical work has been transferred from the offices of the Dean to the general University office. Dr. Frazier will remain professor of clinical surgery. Through the adoption of these new regulations, he has been enabled to undertake the additional duties and responsibilities without relinquishing any of his personal or University work. The present term began Friday, September 26. With this year Dr. George E. de Schweinitz enters upon his duties as professor of ophthalmology.

Jefferson Medical College.—The opening exercises were held October 1, Dr. H. C. Chapman, professor of physiology, delivering the address.

Medico-Chirurgical College.—The opening exercises were held October 1, the opening address having been delivered by Dr. F. S. Pearce, professor of nervous and mental diseases. The new dispensary and laboratory building was opened at the same time.

Bequests.—By the will of the late David Simpson, of Collingswood, N. J., \$5,000 were left to each of the following institutions: West Philadelphia Hospital for Women, Polyclinic Hospital and Rush Home for Consumptives, Philadelphia.

NEW YORK AND NEW JERSEY.

Immigrants Barred.—The Health Commissioner of New York City has informed the Commissioner of Immigration that the Government must provide for the treatment of aliens arriving with contagious diseases, as the city hospitals are unable, on account of inadequate room, to care for more than 10% of the contagious sick in the city. It is believed that the Treasury Department will ask Congress for an appropriation of at least \$100,000, in order to create a new island for hospital purposes near Ellis Island, New York Harbor.

Smallpox at Syracuse University, N. Y.—A case of smallpox has developed in a freshman, rooming in a boarding-house near the University. He has been moved to the City Hospital and the house has been quarantined. The 2000 students at the University have been informed that they will not be allowed to attend classes without having been vaccinated at once.

The Maltine Company's Prize.—Two hundred and eight essays on preventive medicine have been entered in the competition for the 2 prizes of \$1,000 and \$500 offered by the Maltine Company last February. The essays are now in the hands of the 3 judges, Dr. Daniel Lewis, New York, Dr. C. A. L. Reed, Cincinnati, and Dr. J. E. Rhodes, Chicago.

A Resignation.—Dr. Allan Fitch, who has been connected with Bellevue Hospital since 1883, the specialist on mental diseases, has resigned from his position as examiner in lunacy at Bellevue Hospital.

Scurvy and Nyctalopia.—The British bark *Kentmore* reached New York September 28, after a voyage of 197 days from Yokohama. Most of the crew were found suffering from scurvy, 7 of the men being helpless and 4 of them seriously affected. Others were suffering from nyctalopia due to exposure to the strong moonlight in the tropics. Vegetables and lime juice soon gave out, and the only food on board was salt meat. The ship stopped at St. Helena to land an injured man, but no supply of fresh provisions was taken on, as the captain could not anticipate the long and tedious journey which followed.

WESTERN STATES.

Dr. Osler's Address.—Under the auspices of the St. Louis Medical Society, of Missouri, an address was delivered October 4, at St. Louis, on William Beaumont, the first and greatest physiologist, by Dr. William Osler of Baltimore.

Knowlton Hospital, Milwaukee.—A new hospital, to be called the Knowlton Hospital, is now being erected on Sycamore street, between 8th. and 9th. streets, at a cost of \$11,000.

American Academy of Railway Surgeons.—The annual meeting was held at Kansas City, Mo., October 2-3, under the presidency of Dr. A. F. Jonas, Omaha, Neb. Dr. T. B. Lacey, Council Bluffs, Iowa, was secretary.

Bequests.—By the will of the late W. S. Stratton, of Colorado Springs, \$25,000 were left to the Deaf and Blind Asylum, Colorado Springs, while almost \$14,000,000 are to be devoted to founding the Myron Stratton Home for the Poor in Colorado Springs.

Missouri Valley Medical Society.—At the annual meeting last week, held at Sioux City, Iowa, Dr. R. C. Moore, of Omaha, Nebraska, president of the society, in his address, declared that climate had absolutely nothing to do with the successful treatment of phthisis. He believes that there is great danger in the Southern States with superior climatic conditions, because of the liability to infection from the many consumptive patients there. Statistics demonstrated beyond a doubt that weather, temperature, etc., have no effect on tuberculosis. Dr. Moore, however, does believe in the efficacy of sanatorium treatment. He advocates the establishment of state sanatoria throughout the United States.

SOUTHERN STATES.

The President's Illness.—On the morning of September 28, Dr. Newton M. Shaffer, of New York, was called into consultation by Dr. Lung and Surgeon-General Rixey, on account of an increase in local symptoms and a rising temperature. That afternoon an incision was made in the middle third of the President's left leg, under cocaine anesthesia, exposing the bone, which was found slightly affected. The bone was curetted and drainage left in place. The operation was performed by Surgeon-General Rixey, assisted by Dr. Lung. Surgeon-General O'Reilly and Drs. Shaffer, Urie and Stitt were also present. It is now expected that recovery will be uninterrupted, although the wound may take several weeks to heal. The President is in the temporary White House, Washington.

Tri-State Medical Society of Alabama, Georgia and Tennessee.—The fourteenth annual meeting will be held at Birmingham, Ala., October 7-9, 1902, under the presidency of Dr. J. C. LeGrande, of Birmingham. The secretary is Dr. T. Smith, of Chattanooga, Tenn.

Church Hill Medical Society, Richmond, Va.—The program of the society for the coming winter includes papers by the following 25 physicians: Drs. Barksdale, St. J. Oppenheimer, Garcin, Gay, Parker, Blakinship, J. P. Williams, Beazley, Hord, Taliaferro, Leftwich, Curd, Collins, Cosby, Kern, V. Harrison, Terrell, Gee, Crane, J. P. Harrison, W. T. Oppenheimer, G. Ross, D. A. Kuyk, E. G. Williams, M. D. Hoge. The officers of the society are: Dr. Ramon D. Garcin, president; Drs. St. J. Oppenheimer and A. L. Leftwich, vice-presidents; Dr. B. A. Hord, secretary and Dr. B. L. Taliaferro, treasurer.

MISCELLANEOUS.

Cuba's Quarantine Service.—The United States Minister in Cuba has sent the text of 2 executive decrees, re-organizing the quarantine service in Cuba, to the United States. The Cuban Government claims that they save about \$80,000 a year in the cost of administration by this re-adjustment. The quarantine service will be known as the maritime health service. On September 8, a waiter with yellow fever was removed to Las Animas Hospital, Havana, from the steamship *Monterey*, which had arrived from Vera Cruz. The ship was disinfected before being allowed to proceed. The patient is now convalescent.

Cholera in Egypt.—For the week ending September 27, 4421 cases with 3902 deaths were reported throughout Egypt. The epidemic is rapidly declining. The large cities have been singularly free from the disease.

Smallpox in the United States.—The U. S. P. H. and M. H. Reports state that between June 28 and September 26,

1902, 7168 cases of smallpox occurred in the United States, with 367 deaths, as compared with 9907 cases with 282 deaths during the same period in 1901.

Smallpox in Barbados.—Contrary to the report which appeared in our issue of August 30, but 481 cases of smallpox occurred in Barbados between July 13 and September 16. Twenty-one of these have died, 38 have recovered and 422 were still under treatment September 16. The disease was not malignant in type. Free public vaccination is being vigorously carried out.

Smallpox in the Faroe Islands.—The 17 inhabited islands had but one physician, and he was the first to die during the recent epidemic of smallpox which appeared some weeks ago among the islands. As there is no cable connection, the Governor sent a letter, by a sailing ship, to Copenhagen, asking for immediate aid. He fears that the island may be completely depopulated by the epidemic.

Obituary.—Dr. John W. Hughes, at Latrobe, Pa., September 11, aged 64 years.—Dr. George H. Moore, at Memphis, Tenn., September 16, aged 81 years.—Dr. Henry D. Grindel, at San Diego, Cal., September 14, aged 75 years.—Dr. Martin Brown, at Anderson, Ind., September 17, aged 50 years.—Dr. Moritz Neuhaus, at Baltimore, Md., September 22, aged 57 years.—Dr. Willard Humphreys, at Princeton, N. J., September 26.—Dr. Alphonso L. Cory, at Chicago, Ill., September 26, aged 51 years.—Dr. F. S. Coburn, at St. Louis, Mo., September 29.—Dr. John P. Mutchler, at Stroudsburg, Pa., September 29.—Dr. John R. Diller, at Emaus, Pa., September 29, aged 65 years.—Dr. Edmund B. Scribner, at Louisville, Ky., September 28, aged 46 years.—Dr. Henry T. Sears, at Boston, Mass., September 26, aged 45 years.

CONTINENTAL EUROPE.

Virchow's Successor Appointed.—The appointment of Dr. Johannes Orth, professor of pathological anatomy at the University of Göttingen, as successor to the late Dr. Virchow in the chair of pathological anatomy and as director of the Pathological Institute, in the University of Berlin, was announced September 25. Dr. Orth was for many years Virchow's assistant.

Berlin's Death-Rate.—The death-rate of Berlin for the week ending August 23 was but 13 per 1000, one of the lowest during the current year. During the week before that the death-rate was 14 per 1000, while, for the corresponding week last year, it was 22.9. Of the large German towns, only 4, Frankfort-on-the-Main, Bremen, Charlottenburg (11) and Schöneberg (8.3 per 1000), had a lower death-rate.

Plague at Constantinople.—Under the date of September 20, one suspected case of plague was officially reported at Constantinople.

Anthrax in Russia.—The United States consul at Odessa reports that anthrax exists among human beings, both in Odessa and in Aksai, Astrakhan, where 16 deaths have already occurred.

The General Hospitals of Paris.—The following are the eight largest hospitals of Paris: Hôpital de la Pitié, 709 beds; Hôpital Lariboisière, 690 beds; Hôpital St. Antoine, 689 beds; Hôpital Tenon, 635 beds; Hôpital Laennec, 608 beds; Hôpital de la Charité, 516 beds; Hôpital Beaujon, 422 beds, and Hôpital Necker, 418 beds. The other 12 of the 20 hospitals under Government control are devoted exclusively to diseases of the eye and ear, infectious diseases, pulmonary diseases, diseases of children, and diseases of the nervous system and the insane. The best known among the latter is the Hôpital de la Salpêtrière, which contains 3800 beds. All of these hospitals together can accommodate over 12,000 patients.

A Cure for Red Noses.—A Berlin physician, probably a sufferer himself, has announced that a tendency to redness of the nose, due to fugitive erythema, either from internal or external causes, may be cured by benzine applications. He applies the benzine on a folded piece of lint, kept upon the erythematous area a few seconds without causing friction. When this is repeated a few times, the skin covering the nose becomes paler and less shiny. Applications of benzine may also be made prophylactically.

Treatment of the Insane.—The following resolutions were passed at the recent International Conference on the Treatment of the Insane at Antwerp, which closed Sep-

tember 6: That the confinement of the insane henceforth be abandoned, except in the cases of those recognized as dangerous. That the system of boarding insane persons with families be carried out whenever possible. That it is expedient to renew the wish formulated at the Congress at Paris for the establishment of schools for special classes of the mentally weak under medical supervision. That the manner of placing patients be entirely left to physicians and that forcible restraint should be condemned.

University Notes.—**Angers.**—Dr. Motais has been appointed professor of ophthalmology and Dr. Sarazin, professor of physics.—**Berlin:** The names of Dr. Müller, of Munich, von Noorden, of Frankfort-on-the-Main, and Krehl, of Tübingen, have been mentioned as the probable successor of the late Dr. Gerhardt.—Dr. Gotthold Pannwitz, Secretary-General of the Central German Committee for the Erection of Sanatoria for Tuberculosis, has been granted the title of professor.—Dr. Friedrich Schumann has been appointed professor of psychology.—Dr. Brock, secretary of the German Balneological Society, celebrated his 70th birthday, August 29.—**Budapest:** Dr. K. Rethy, professor of internal medicine, has been chosen rector of the university for the coming year.—**Caen:** Dr. Fayel-Deslongrais, professor of physiology, has recently been retired, becoming honorary professor.—**Cologne:** Dr. Jacobs, who celebrated his 70th anniversary as a physician, August 30, is in his 93rd year.—**Erlangen:** Dr. Ludwig Heim has been appointed professor of hygiene.—**Göttingen:** Dr. Sultan has been appointed professor of surgery.—**Innsbruck:** Dr. Oskar Zoth of Gratz has been appointed professor of physiology.—**Lausanne:** Dr. A. Mermoud has been appointed professor of otology and laryngology.—Dr. J. Berdez has been appointed professor of therapeutics.—**Leipsic:** Dr. Saxer has just been appointed professor of pathological anatomy.—**Limoges:** Dr. Gusse, professor of physics, has recently become honorary professor upon the occasion of his retirement.—**Linz:** Dr. Rudolf Schmidt, formerly assistant in the Schauta clinic at Vienna, has just received the title of professor of obstetrics.—**Marburg:** Dr. Heinrich Hildebrand has been appointed professor of histology.—**Montpellier:** Dr. Bertin-Sans, professor of hygiene, has just been retired, becoming honorary professor.—**Munich:** Dr. Karl Seitz has been appointed professor of pediatrics.—Dr. Fritz Voit has succeeded Professor Moritz as director of the medical polyclinic.—**Naples:** Dr. Maximilian Malbranc has been granted the title of professor.—**Nancy:** Dr. Guérin has been appointed professor of toxicology and medical chemistry.—**Odessa:** Dr. Mankowski has been appointed professor of histology.—**Paris:** Professors Fournier and Farabeuf have recently been retired, becoming honorary professors.—**Prague:** Dr. E. Hering has been appointed professor of pathology in the German University.—Dr. E. F. Joseph Thomayer has been appointed professor of internal medicine and Dr. Johann Deyl, professor of ophthalmology, in the German University.—Dr. Eiselt, professor of internal medicine in the Bohemian University, has recently been retired.—**Rennes:** Dr. Perrin de la Touche, professor of histology, has been appointed director of the medical school.—**Siena:** Dr. Cirincione has been appointed professor of ophthalmology.—**St. Petersburg:** The Russian Government has appropriated \$107,500 for erecting the Pathological Laboratory of the Eleninski Clinical Institute.—A society has recently been organized for furnishing to the poor Alpine goats, which are to be used as substitutes for wet-nurses.—**Tours:** Dr. Wolff, professor of physics, has been appointed director of the medical school.—Dr. Parisot has been appointed professor of histology.—**Tübingen:** Dr. Rudolf Weinland, first assistant in the chemical laboratory at Munich, has been appointed professor of pharmaceutical chemistry.—**Vienna:** Dr. Arthur Schattenfroh, professor of hygiene and assistant in the Hygienical Institute, has been appointed director of the Department of Hygiene temporarily.—The new department for children's diseases, in the Wilhelmina Hospital, was opened August 18.

Obituary.—Dr. Alcina y Rance, professor of therapeutics and materia medica at Cadiz, died recently.—The death is also announced of Dr. Henri Dagonet, agrégé of the old French faculty of medicine at Strassburg, formerly physician to the St. Anne Asylum, Paris.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

September 13, 1902. (No. 2176.)

1. A Discussion on the Value of Systematic Examination of Workers in Dangerous Trades—Lead, Mercury. S. KING ALCOCK, WILLIAM HENRY VICKERY, WALTER A. ATKINSON, JAMES HOLMES, THOMAS FRED. YOUNG, THOMAS OLIVER, ALEXANDER SCOTT, COLIN CAMPBELL, THOMAS MORRISON LEGGE, J. H. KEAY and ARTHUR WHITELEGGE.
2. On the Injurious Influence of Fast Aniline Black Dyeing Processes. WILLIAM FRANCIS DEARDEN.
3. The Acneform Eruption of "Doffers." H. S. PURDON.
4. Some of the National, Ethical and Educational Causes of the Deficiency of Labor Hands. C. F. MOORE.
5. The Granting of Certificates of Fitness to Children and Young Persons Employed in Factories and Workshops. C. A. GREAVES.
6. The Granting of Certificates of Fitness to Children and Young Persons for Employment in Factories and Workshops. ALEXANDER CAMPBELL.
7. A Discussion on the Relation of Phthisis to Factory and Workshop Conditions. JAMES NIVEN, G. F. McCLEARY ARTHUR RANSOME, W. M. ROBERTSHAW, THOMAS WATTS, ARTHUR NEWSHOLME, JAMES BEATTY, RICHARD JONES, THOMAS MORRISON LEGGE, HENRY S. PURDON, H. HAMMOND SMITH, ARTHUR WHITELEGGE.
8. A Discussion on the Development of the Human Urinogenital Tract. D. BERRY HART, A. M. PATERSON, ARTHUR ROBINSON, PETER THOMPSON.
9. On the Relation of Metabolism to Lymph Formation. F. A. BAINBRIDGE.
10. Development of the Sternum and Shoulder Girdle in Mammals. A. M. PATERSON.
11. Parturition in the Guinea-Pig. WILLIAM STIRLING.
12. Absence of the Middle Finger of the Right Hand, with History. ARTHUR ROBINSON.
13. A Discussion on Intestinal Secretion and the Action of Drugs Thereon. J. SYDNEY EDKINS, W. E. DIXON, W. H. THOMPSON, WILLIAM STIRLING.
14. On Electric Phenomena which Accompany the Oxidation of Oxalic Acid Produced by Exposure to Light. LOUIS QUERTON.
15. On the Movements and Innervation of the Stomach. W. PAGE MAY.
16. The Action of Certain Hemolytic Agents on Nucleated Colored Corpuscles. G. N. STEWART.
17. The Origin of a Visual Impulse. F. W. EDRIDGE-GREEN.
18. On Some New Properties of Urea (with Demonstrations). W. RAMSDEN.
19. A Discussion on the Motor Cortex as Exemplified in the Anthropoid Apes. G. S. SHERRINGTON, and A. S. GRUENBAUM, G. N. STEWART, ALFRED W. CAMPBELL, JOHNSON SYMINGTON, W. PAGE MAY and W. H. THOMPSON.
20. Some Questions with Reference to Occipital Condyles. R. J. ANDERSON.
21. Germ Infection in Tuberculosis. GEORGE OGILVIE.
22. The Use of Paraffin for Restoring the Bridge of the Nose. STEPHEN PAGET.

1.—Alcock contributed to a discussion on the value of systematic examination of workers in dangerous trades, the results of his monthly medical examinations of upward of 500 female and young male workers in those processes of china and earthenware manufacture which involve the use of lead. The object of these examinations

has been to eliminate the unfit, to recognize the early appearance of dangerous symptoms, to improve the treatment of the lesions and to accumulate statistics. As a result, the type of worker has decidedly improved. The rules governing personal hygiene are obeyed better and more automatically. Complaints from workers have resulted in improvements in the conditions under which they do their work. Bond thought that the chief value of such examination lies in the power of the surgeon to suspend or discharge any female worker who is injuriously infected by her work. The 2 conditions most in need of supervision are pregnancy and anemia. Lead produces cerebral disturbances in those that work in majolica and color dusting. Vickery said that he thought that the progressive anemia is the most reliable sign of lead poisoning, and with this view Holmes, Young, Oliver and Campbell agree. [J. M. S.]

2.—The symptoms produced by aniline black poisoning are nausea, loss of appetite, lassitude, cold extremities lividity, cyanosis of the lips and finger nails. In the more severe cases the cyanosis becomes more pronounced, dyspnea appears, giddiness, shivering, muscular relaxation, small and intermittent pulse, drowsiness, dilated pupils, loss of consciousness, disorder of the rectal function and dysuria with dark colored urine have been noted. Aniline black is extensively used nowadays in the production of a fast black dye. In order to prevent the symptoms of poisoning by it just enumerated, a ready prepared aniline salt should be used in the preparation of the dyeing solution, but if aniline oil is regarded as the better agent, the mixing should be done in a covered vessel or under a hood; the dye house should be roomy and lofty and kept cool by efficient ventilation; the men should not be allowed to handle the material unless they wear rubber gloves; drying rollers should be covered and ventilated into the outside atmosphere; the hands should be washed before meals; and food should not be eaten or kept in the dye house. [J. M. S.]

3.—"Doffers" are children, not over 15 years of age, who are employed in the spinning rooms of flax mills to remove the bobbins from the spinning frame. They are liable to a peculiar eruption occurring on the forearms and occasionally on the face. The eruption is evidently a folliculitis due to a sluggish action of the sebaceous glands, the orifices of which are choked up by the oil and irritated by the flax water that comes off the bobbins. Half-time doffers are often attacked on first entering the mill by feverish symptoms known as "mill fever." These symptoms pass off in a day or two and are possibly due to the smell of oil together with the vapor and heat of the rooms. [J. M. S.]

7.—In most of the centers of population the male phthisis death-rate considerably exceeds the female. This excessive male phthisis mortality is determined to a considerable extent by groups of workers not in factories and workshops and by large numbers of common laborers. The abode and circumstances and the sanitary surroundings of the workers have an important influence on the phthisis mortality. Alcoholism plays a conspicuous part in determining the development of the disease. The heavy phthisis incidence is found in all occupations attended with the production of much dust. In order to diminish the incidence of phthisis in work people Niven advises compulsory notification, prohibiting of spitting in workshops, daily wet sweeping of work rooms, improved ventilation and lighting. McCleary points out that the hot, steam-laden atmosphere in the washing and ironing rooms, the wetness of the washing room floor and deficient ventilation would appear to predispose laundresses to phthisis; not only by lowering their vitality but also by rendering their respiratory passages specially liable to catarrh. In the sorting room a considerable quantity of clothing which has been soiled with tuberculous expectoration and discharges must be handled before any attempt has been made to disinfect them. In one institution phthisis formed 8.7% of the illness among laundresses, while in women other than laundresses phthisis was accountable for 5.3% of the ill-

nesses. In another institution phthisis caused 10.9% of illness among laundresses and 4.5% of illness in other women. Ganister is a mineral substance which has a very high degree of heat resistance. Robertshaw points out that in mining, preparing and manufacturing this mineral a disease is produced which is known as Ganister disease. It is due to the inhalation of the dust produced in mining the mineral and making it into bricks. There is one class of cases in which a fibroid change in the lung occurs first, but then tuberculosis develops and plays the chief part; there is a second class in which tubercle plays a very secondary part to the fibroid disease, and a third variety in which the fibroid change is the only alteration to be found. The inhaled mineral particles give rise to a fibrosis, the fibroid areas increase at the expense of the adjacent lung by the development of localized areas of bronchopneumonia, and thickening and induration of the alveolar walls. Watts contributes a note on shuttle-threading as a source of tuberculous infection. [J. M. S.]

8.—Hart considers that the upper two-thirds of the vagina are developed from the Müllerian ducts, and its lower one-third is developed from the urogenital sinus. The hymen is derived from the coalescence of bulbous proliferations of the lower ends of the Wolffian ducts. It follows, therefore, that the colliculus seminalis is the male analogue of the hymen. He believes that the bladder is derived from the lower end of the primitive gut and that no part of it is formed from the allantois. The vaginal epithelium arises by an upward proliferation from the Wolffian bulb.

[J. M. S.]

9.—Bainbridge has shown that the slow intravenous injection of solutions of pure bile salts and of pure hemoglobin leads to an increased lymph flow from the thoracic duct and to a greater flow of bile. The bile salts and hemoglobin increase the metabolism of the liver, and it must be concluded, therefore, that these 2 substances constitute a class of lymphagogues which act by stimulating the metabolism of the liver. [J. M. S.]

18.—Ramsden has shown that the presence of urea up to saturation prevents the coagulation by heat of all proteid solutions. A dead frog placed in a saturated solution of urea becomes translucent and falls to pieces in a few hours. The ligaments, tendons and connective tissues throughout the body are converted into a clear, soft jelly. [J. M. S.]

19.—Sherrington and Grünbaum have found from experiments on anthropoid apes that the greater part of the motor area of the cerebral cortex is situated in front of the fissure of Rolando. [J. M. S.]

LANCET.

September 13, 1902.

1. A Presidential Address delivered at the meeting at Belfast on September 10, 1902, of the British Association for the Advancement of Science.

JAMES DEWAR.

2. Tetanus and Vaccination: An Analytical Study of 95 Cases of the Complication. JOSEPH McFARLAND.
3. A Successful Case of Gastrectomy for Carcinoma of the Pylorus and Lesser Curvature of the Stomach.

G. A. SYME.

4. A Case of Hemophilia in a Woman with Symptoms of Defective Circulation in the Legs and Threatened With Gangrene of the Toes; Death with Cerebral Symptoms. JOSEPH A. ARKWRIGHT.
5. The Ultimate Results in a Series of 75 Cases of Fracture of the Tibia and Fibula. R. W. MURRAY.
6. The Choice of an Anesthetic for Short Operations upon the Throat and Nose. J. HENRY CHALDECOTT.
7. A Case of Traumatic Rupture of the Spleen; Removal Followed by Empyema and Recovery.

EDGAR BEAUMONT and EDWARD HOUSEMAN.

2.—McFarland contributes an article on tetanus and vaccination and gives an analytical study of 95 cases of this complication. In his conclusions he states: (1) Tetanus is not a frequent complication of vaccination. (2) The number of cases observed during 1901 was out of all proportion

to what had been observed heretofore. (3) The cases are chiefly American and occur scattered throughout the eastern United States and Canada. (4) These cases have nothing to do with atmospheric or telluric conditions. (5) A small number occurred after the use of various viruses. (6) An overwhelming proportion occurred after the use of a certain virus. (E) (7) The tetanus organism may be present in the virus in small numbers, being derived from manure and hay. (8) Occasionally, through carelessness or accident, the number of bacilli becomes greater than usual and may lead to the epidemic occurrence of tetanus. (9) The future avoidance of the complication is to be sought for in greater care in the preparation of the vaccine virus.

[F. J. K.]

3.—Syme reports a case of **gastrectomy successfully performed** for carcinoma of the pylorus and lesser curvature of the stomach in a woman, aged 55 years. The author states that compared with pylorotomy the operation performed in this case was easier and took less time because there was less stomach surface to suture. Although the whole stomach was not involved, a large portion of the lesser curvature was, and for this reason it was deemed advisable to do a complete operation. A small portion, however, of the greater curvature at the cardiac end was left. A few obviously large and hard glands were also removed. The patient made a prompt reaction from the operation. Small quantities of water were given by the mouth on the second day after operation and feeding was gradually increased until the patient was given full diet. At no time did the giving of food produce discomfort. The patient was discharged about 4 weeks after the operation. The operation was done on May 8, 1902. [J. H. G.]

4.—Arkwright reports a case of hemophilia in a woman with symptoms of defective circulation in the legs and threatened gangrene of the toes; death occurred with cerebral symptoms. The patient was a single woman, 30 years of age at the time of her death. One of her brothers was a hemophiliac. On a number of occasions the patient suffered from severe hemorrhages brought about by slight abrasions of the skin or mucous membrane. In the summer of 1900 the patient's left leg was noticed to be colder than the right, and a variable purple mottling was present on the skin of the left leg below the knee. Gangrene of the toes on the left foot threatened during the winter of 1900 and 1901, but passed away after rest and elevation. A few weeks before death the left little and middle toes became almost black and on November 4th. the patient developed a cerebral hemorrhage and died. [F. J. K.]

5.—Murray has carefully examined 76 cases of simple fracture of the tibia and fibula in order to discover the ultimate results of this injury. The patients were all treated in a Liverpool hospital, where about 250 fractures of the leg are received yearly. A tabulated list of the 76 cases is presented with the ultimate result given in each case. Murray does not approve of the ordinary straight posterior splint with the vertical foot-piece. He shows that the natural position of the leg when the patient is recumbent is one of slight eversion and therefore he employs a splint the footpiece of which is inclined outward at an angle of 70° with the same inclination forward. To place the foot at right angles to the leg tends to produce tension of the calf muscles and a consequent displacement of fragments, hence the forward obliquity of the foot-piece. At the end of 4 weeks, when the fractured bones are firmly united, movement of the ankle and knee joints together with massage is indicated. The usual mistake made in treating these cases is that of keeping the injured limb in a state of immovability for too long a time. In cases of oblique fracture of the tibia the patient should not be allowed to put the body weight upon the limb until the end of the third month. It is practically impossible in certain cases of oblique and spiral fractures to produce a proper restoration of the parts. Although many of these patients recover with bad position, the function of the part is surprising. Hemorrhage and inflammation of the soft parts together with a piercing of the adjacent muscles and fascia by the

sharp ends of the broken bone are the most frequent interferences with a perfect reduction of the fragments. In deciding for or against an operation in these oblique fractures the character of the fracture together with the patient's avocation must be the deciding points. The author is a strong advocate of the use of the X-ray in all cases of doubtful or unsatisfactory fracture. In cases of Pott's fracture in which restoration of the fragments is difficult tenotomy can frequently be avoided by placing the foot in the position indicated. [J. H. G.]

6.—Chaldecott condemns strongly the use of chloroform as an anesthetic in short operations upon the throat and nose, referring to 50 recent cases in which death has occurred in these otherwise simple operations. Even in the hands of an experienced anesthetist chloroform in these cases is extremely dangerous. For infants less than 12 months old ether should be employed on an open mask; children from one to 4 years of age do not take nitrous oxide well, especially if there is any obstruction of the respiratory tract: Ether in these cases is usually taken without trouble. From 4 to 12 years of age nitrous oxide is generally satisfactory. This agent is also usually satisfactory in adolescents and adults. Gas and ether are rather to be preferred to gas and oxygen. Chloride of ethyl the author has employed in 80 cases, but considers it less trustworthy and more tedious to administer than ether. The best gag to employ in these cases is Doyen's and it should be introduced before the administration of the anesthetic. The author closes with repeated advice against the use of chloroform in nose and throat work. [J. H. G.]

7.—Beaumont and Housemann report a case of rupture of the spleen occurring in a 17-year-old boy in which they successfully performed splenectomy. The patient presented no immediate symptoms of intra-abdominal hemorrhage, but some hours after admission to the hospital these symptoms were quite marked. The abdomen was opened, the spleen found divided in two portions and was removed. Subsequent to the operation the patient developed a pleural effusion on the left side which later became septic and required a thoracotomy. The patient was in a septic condition for some time and altogether 350 cm. of anti-streptococcic serum were employed. The patient ultimately made a good recovery though his pulse has always remained rapid. The operation was performed on May 20, 1902, and on September 8, excepting for the rapid pulse, the patient was in perfect health. [J. H. G.]

MEDICAL RECORD.

September 27, 1902.

1. Rational or Dietetic Treatment of "Bright's Disease" Contrasted With Surgical Intervention.

WILLIAM HENRY PORTER.

2. Tuberculosis of the Urinary Tract. P. NEWMARK.
3. Is It Wise for the Regular Practising Physician to Spend Time to Investigate Psychic Therapeutics?

R. OSGOOD MASON.

4. Clinical Study of a New Silver Salt in the Treatment of Gonorrhea. H. M. CHRISTIAN.

5. Pulse and Respiration at an Elevation of 10,200 Feet, as Ascertained by the Examination of One Hundred Subjects. MAURICE KAHN.

1.—Porter contrasts the dietetic treatment of Bright's disease with surgical intervention. The etiological factors are numerous and very complicated in their action; while most of these can be modified or removed by well directed dietetic and therapeutic measures, only one, if any, can be reached by surgical interference. Remissions must not be mistaken for cures. Rational dietetic and therapeutic measures offer the largest possibility for relief. A well-regulated mixed diet, especially if composed largely of the animal class, when it can be tolerated, yields the best results. [T. L. C.]

2.—Newmark discusses tuberculosis of the urinary tract. In this condition the clinical picture is less conclusive than that of tuberculosis in any other part of the body. Frequent desire to urinate with painful micturition and the pathological condition of the urine are the chief symptoms

met with in such cases. Hematuria is frequently a prodromal symptom in vesical tuberculosis. This writer dwells upon the importance for a conclusive diagnosis of determining the presence of tubercle bacilli in the urine. The secret of finding the organism lies in rapid sedimentation by the centrifuge and immediate staining. A consideration of the differential diagnosis between the tubercle bacillus and the smega bacillus is included in this paper. Tuberculosis of the kidney, including its diagnosis and symptomatology, is discussed. The cystoscope and the ureteral catheter are of value in the diagnosis of tuberculous diseases of the urinary tract, but they should be used with great caution in this class of cases. [T. L. C.]

4.—Christian has been conducting clinical investigations regarding the action of a new silver compound in the local treatment of gonorrhea. This silver salt is known as silver vitellin. Christian furnishes the following summary of its action: (1) It is absolutely free from any irritating properties, solutions as high as 5%, causing no discomfort. (2) The gonococci on and beneath the urethral mucous membrane are rapidly destroyed. (3) The amount of urethral discharge is at once lessened in a marked degree in the majority of cases. (4) The actual duration of the disease is shorter than is obtained by the use of any other silver salt. In his series of cases 38 were cured in from 2 to 4 weeks. [T. L. C.]

5.—Kahn presents a study of the pulse and respiration at an elevation of 10,200 feet, as ascertained by the examination of 100 subjects. He feels justified from his experience in advocating the trial of very high altitudes in incipient phthisis. A study of the tables shows that the rates vary but slightly from the normal at altitudes even 2 miles lower than the one at which these records were taken. [T. L. C.]

MEDICAL NEWS.

September, 27, 1902. (Vol. 81, No. 13.)

1. Myomectomy vs. Hysterectomy. ANDREW J. M'COSH.
2. Wounds, with a Discussion of what Constitutes Rational Treatment. FREDERIC GRIFFITH.
3. The Importance of Diagnosis in Skin Diseases Considered Generally and as Applied to Particular Diseases. ISADORE DYER.
4. Advances in Ophthalmic Therapeutics. D. B. ST. JOHN ROOSA.
5. Bronchial Asthma and Allied Disorders; Their Summer Treatment. BEVERLEY ROBINSON.
6. School Life and Insanity. J. S. LANKFORD.

1.—The summary of McCosh's article is as follows: (1) In young women with uterine fibroids demanding removal myomectomy should always be the operation of choice; (2) myomectomy is possible and advisable in the great majority of cases of fibroid tumors in young women; (3) for the safe performance of myomectomy the strictest asepsis is needed, otherwise it becomes a most dangerous operation; (4) in the operation of myomectomy fear of hemorrhage should be cast aside and bold and rapid methods should be adopted; (5) the operation is attended by the same danger to life as is hysterectomy; (6) the ultimate results, as regards menstruation, pain and pregnancy, are satisfactory. [T. M. T.]

2.—Griffith prefers Doyen's operation and claims for it the following advantages: Expedition in its performance; complete and secure hemostasis; increased freedom from septic infection and the entire removal of an organ, the retained portion of which may be the source of subsequent degeneration. [T. M. T.]

3.—Dyer gives the cardinal points in the diagnosis of skin diseases as follows: (1) The location of the disease. (2) The distribution over the particular region on which it occurs. (3) The arrangement of the component parts or lesions. The lesions themselves must be studied in detail so as to classify the disease. He also gives certain important points in diagnosis, which he says are valuable as guides: (a) Eruptions which are bilaterally symmetrical are either constitutional in origin or are exposed to the identical local cause on both sides of the body. (b) Parasitic diseases are found on the flexors preferably or on the exposed parts of the body. (c) The more chronic diseases of the skin become, the deeper the color; on the other hand, the brighter and more vivid the color, the

more acute the disease. Scales are the evidence of chronicity; likewise ulcers and scars. (d) Fluid lesions seldom itch. Papular eruptions almost always itch. (e) Single ulcers are almost always syphilitic, trophic, traumatic or malignant; multiple ulcers are tubercular, syphilitic or malignant. (f) On the face ulcers are seldom due to other causes than cancer, syphilis or tuberculosis. (g) The color of eruption on the Caucasian is always important in diagnosis. Syphilis is pigmented brown or buff, as its eruptions fade or disappear. Leprosy is always shaded brown or purple. Lichen ruber is always violaceous or white. Psoriasis is always pale red covered with white scales. Seborrheic eczema is always yellow-red with greasy scales. (h) The odor in skin diseases is important. Syphilis, when ulcerating, smells rancid; favus smells mousy; varicose ulcers smell sweet; neurotic ulcers or those of leprosy are nauseous, foul and intense; rodent ulcer has a smell of rotting meat. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

September 27, 1902.

1. Perforating Ulcers of the Duodenum.
JOHN B. MURPHY and J. M. NEFF.
2. Placenta Previa; its Early Recognition and Treatment. EDWARD A. AYERS.
3. Complications in the Passage of a Gall-Stone.
NEIL MACPHATTER.
4. Pain as a Symptom in Gynecological Disease.
SAMUEL M. BRICKNER.
5. The Treatment of Yellow Fever.
J. HOBART EGBERT.

1.—Murphy and Neff, who have thoroughly reviewed the subject of **perforating ulcers of the duodenum**, report a case in a laborer, aged 24 years. Laparotomy was performed and the perforation was closed with silk Lembert sutures, the peritoneum being closed without drainage. Pure cultures of colon bacilli were obtained from the pus. The patient recovered rapidly. Nineteen similar cases were collected from the literature. They conclude that the diagnosis is practically impossible without laparotomy. The most important physical sign, in addition to those of perforative peritonitis, is the flatness of the superficial percussion note. Leukocytosis was pronounced in their case. There is no collapse unless severe hemorrhage occurs. Laparotomy should be performed as soon as possible and the operation should be complete. The prognosis will depend on the virulence of the peritonitis, on the time the material has been allowed to remain in the peritoneum and upon the presence or absence of abrasions of the peritoneum at operation. [M. O.]

2.—In the **diagnosis of placenta previa** the uterine souffle cannot be relied upon to indicate the placental site. With thin abdominal walls and lax uterine muscles, the placental edge may be palpated in anterior placenta previa. This is, however, usually not practicable. Auscultation is also not reliable. It may be possible to palpate placenta previa through the rectum, in suspected cases, under anesthesia. Vaginal examination should easily detect cases of central implantation. In central or marginal cases, Ayers advises induced labor at the eighth month. Partial placenta previa should seldom be the cause for inducing labor. The details of the technique for the induction of labor in such cases are most fully described. Cesarean section should not be done in these cases. [M. O.]

3.—Will be abstracted when concluded.

4.—Pain may be of value in **diagnosing gynecological disease**, especially in patients with secondary symptoms of pelvic trouble. Pain may be of different kinds, spontaneous or evoked, continuous or intermittent, or it may vary in position. It is present at some time in all cases of pelvic disease. The peculiar types of pain common to certain disorders are briefly classified by Brickner. [M. O.]

5.—Omitting the subject of the etiology of **yellow fever**, Egbert only discusses the treatment. There is **no specific treatment** for the disease. The disease should be recognized early and the treatment should be prompt. In the stage of invasion or primary fever, the disease may be

aborted, or, at any rate, modified. To this end the patient should be wrapped in blankets and hot drinks should be freely administered, the feet being soaked in hot water. A cathartic should be given and diaphoresis should be kept up, especially in cases in which vomiting and nausea have already occurred. If the fever has not subsided in 24 hours, quinine and acetanilid should be given. The gastro-intestinal tract and kidneys should both be kept in good order. Cold and bromides are to be used for quieting nervous symptoms, while opium is always contra-indicated. During the stage of remission, antipyretics may be discontinued. With depression or general debility, quinine and strychnine become necessary. Food should be liquid and in small quantity. Ice, milk with lime water or magnesium hydrate, and champagne are of value. In the stage of collapse or secondary fever, stimulation, cold sponging and enemata of warm water and normal salt solution are of service. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

September 25, 1902. (Vol. CXLVII, No. 12.)

1. The Creation of Artificial Valvular Fistula. (a) For the Treatment of Chronic Colitis. (b) As an Adjuvant to Certain Operations on the Stomach.
C. L. GIBSON.
2. The Iliopsoas Bursa: Its Surgical Importance and the Treatment of Its Inflammatory Conditions, with Report of Three Cases. F. B. LUND.
3. Operative Treatment of Varicose Veins. J. B. BLAKE.
4. The Local Pathology of Acute General Infections Arising Through the Lymphoid Tissue of the Fauces.
J. L. GOODALE.

1.—Gibson recommends the operation described in his article on the following grounds: (1) That there is a demand for some additional means of maintaining the patient's strength immediately after a severe operation on the stomach; (2) that it promises to be efficacious; (3) that it adds little, if any, risk to the original operation; (4) that it can be done after discontinuance of the anesthetic and therefore does not substantially prolong the operation; (5) that the feeding can be begun, if necessary, on the operating table; (6) when the fistula has outlived its usefulness, it can be put out of commission by withdrawal of the tube and it should close spontaneously in 2 or 3 days without essential leakage. [T. M. T.]

2.—Lund reports a case of iliopsoas bursa and notes the following: (1) The iliopsoas bursa possesses surgical importance, owing to its position and its frequent connection with the hip joint. It frequently extends above the pelvic brim. (2) It may be involved in osteo-arthritis, gonorrheal infection or suppurative arthritis of the joint and the symptoms due to the disease of the bursa may dominate the clinical picture. (3) In gonorrheal arthritis incision of the bursa affords an easy method for reaching and draining the joint. (4) In osteo-arthritis relief of pain is afforded by incision of the bursa. (5) The bursa is best reached by a vertical incision just below Poupart's ligament, between the anterior crural nerve and the femoral artery. The iliopsoas muscle may be drawn inward, or, as is perhaps more direct and preferable, the fibers may be separated by blunt dissection in the line of the incision. (6) When the bursa is connected with the joint, a ready diagnosis of the condition of the head of the femur and acetabulum may be made by passing through the opening in the bottom of the bursa. (7) Iliopsoas bursitis should be more often considered in the differential diagnosis of obscure tumors in the groin and such a diagnosis should be possible in cases in which the hip joint is known to be diseased and a tumor suddenly appears in front of the joint, under the anterior crural nerve and femoral vessels, which is very painful and tender and perhaps gives to the palpating finger a sensation of deep fluctuation. [T. M. T.]

3.—Blake gives Verneuil's conclusions as follows: (1) Whenever superficial varices exist in the lower limb, the corresponding deep veins are varicose; (2) deep veins may be dilated without superficial varix; (3) deep varices are more common than superficial; (4) the primitive seat of varicosity resides in the deep veins. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

September 27, 1902.

1. Hospitals for the Neuropathic and Psychopathic.
RICHARD DEWEY.
2. Abscess of the Lung Following Acute Lobar Pneumonia. FLOYD W. McRAE.
3. The Inoperable Nature of the Pulmonary Tubercular Lesions. HORACE W. WHITACRE.
4. The Diagnostic Importance of Keratitis Punctata Interna (Descemetitis). HARRY FRIEDENWALD.
5. Injuries of the Eye Productive of Disease of the Uveal Tract. HOWARD F. HANSELL.
6. The Employment of Digitalis and Aconite in the Treatment of Cardiac Disease. H. A. HARE.
7. The Origin of the Vesicular Respiratory Sound.
C. F. HOOVER.
8. Repeated Small Hemorrhages as a Cause of Severe Anemia. JAMES B. HERRICK.
9. A New Instrument for Intestinal Anastomosis.
E. M. LUNDHOLM.
10. Etiology and Treatment of Chronic Cystitis.
A. C. STOKES.

1.—See *Philadelphia Medical Journal*, June 21, page 1118.

2.—See *Philadelphia Medical Journal*, June 21, page 1100.

3.—See *Philadelphia Medical Journal*, June 21, page 1100.

4.—Friedenwald discusses the diagnostic importance of keratitis punctata interna (descemetitis). The reports of a number of cases are included in this article and he concludes as follows: Keratitis punctata interna, or descemetitis, is observed in various ocular diseases. It is found in every case of iritis. It is an almost constant sign of exudative choroiditis and is sometimes found in syphilitic choroiditis. It is also observed in cases of acute and chronic cyclitis. It is found in diffuse and in circumscribed keratitis, in which cases it probably depends upon an underlying uveitis. It is sometimes seen in scleritis and is then probably due to associated, perhaps secondary, uveitis. When no other signs of uveal disease are noted besides descemetitis, it is due to carelessness in the examination. Excluding the cases of external disease (diffused and circumscribed keratitis and scleritis) and the great category of iritis, the author has been able to report on 53 cases. Even including those earlier ones in which the examinations were not made with the thoroughness of those of later years and including those in which the opacities of the media prevented examination of the fundus, they show that about three-fifths have exudative choroiditis. This ratio is indeed high; he ascribes it to the fact that, convinced for a number of years of the frequency of these cases, he has examined the fundus in many cases for a long time and repeatedly until he found the looked-for lesion. In some the diagnosis was not made until the second visit and after a mydriatic had been used, and in several of those seen in dispensary practice the lesion was not observed by any of those who examined the cases until it had been pointed out to them. Experience has taught the author that a large number of these cases pass through the hands of skilled ophthalmologists without discovery of the true lesion. He does not hesitate to say that, if his earlier cases had been examined more carefully, exudative choroiditis would have appeared relatively still more frequently than has been shown in this paper. It is due to ignorance of these facts and to carelessness in examination that so many cases are still recorded as "serous iritis" and "serous cyclitis." It should be noted that we can examine with the ophthalmoscope only that part of the choroid lying back of the equator, and, at most, with a dilated pupil the equatorial region or a little beyond it. Exudations in the anterior portion of the choroid may therefore be beyond the reach of the ophthalmoscopic examination. Such cases will be grouped with cyclitis. Do the cases reported throw any light on the nature of the cyclitis with which descemetitis is associated? We know that descemetitis occurs in iritis, in which disease we always have an exudative inflammation. We find descemetitis in choroiditis only when there is an exudative inflammation. It is but reasonable to infer on clinical

grounds that descemetitis occurs in cyclitis only when there is an exudative inflammation. The "serous iritis" and the "serous cyclitis" have, therefore, no clinical bases. That they have no pathological bases has been pointed out recently by Bruns. He hopes that these terms will be discarded in the future, and that the section would do well to express itself with decision to this effect. One point that the author would especially like to impress by his paper is, that in a large proportion of cases, ordinarily diagnosed as "serous iritis" and "serous cyclitis," we find exudative choroiditis. [F. J. K.]

5.—Hansell discusses injuries of the eye productive of diseases of the uveal tract. In his conclusions he states: (1) Injuries to the ciliary zone are always serious and often destructive of the usefulness of the eye. (2) The syphilitic, diabetic or tubercular diathesis delays recovery and renders the prognosis uncertain. (3) Diseases of the uveal tract, the result of injuries are favorably modified by the energetic treatment of these constitutional affections. (4) Enucleation or one of its substitute operations is to be practised immediately when a foreign body lies embedded in the ciliary region and can not be extracted, or when an eye is mangled beyond hope of redemption. (5) Conservative measures, such as cold compresses, antiseptic washes, subconjunctival injections, excision of the prolapsed iris or ciliary body, rest in bed, restricted diet, morphine and other means to subdue inflammation should be the rule in other cases. [F. J. K.]

6.—See *Philadelphia Medical Journal*, June 21, page 1096.

7.—See *Philadelphia Medical Journal*, June 21, page 1093.

8.—Herrick reports a number of cases which show that severe anemia may be brought about by repeated small hemorrhages; often from a condition so easily recognized and easily remedied as hemorrhoids. He mentions that this form of anemia may prove fatal, and cases of a transformation of this type into pernicious have been reported. [F. J. K.]

9.—Lundholm describes a new instrument for intestinal anastomosis which he has employed successfully in 6 cases. His article is well illustrated. It is claimed for this instrument that it hastens the performance of lateral intestinal anastomosis, that leakage of visceral contents is nearly impossible with ordinary care and that post-operative bleeding is prevented. [J. H. G.]

10.—Stokes discusses the etiology and treatment of chronic cystitis. He refers to the various avenues by which micro-organisms may gain access to the bladder. The old idea that the urine in chronic cystitis is always alkaline does not hold since in at least one-half of these cases the urine is acid. The treatment will be influenced by the cause of the condition, and Stokes objects to the employment of urotropine in all forms of cystitis, irrespective of their nature. The drug should only be used in those cases producing alkaline urine. In cystitis of gonorrheal or pyogenic origin, irrigation with silver solution is favored. Mercuric chloride solution should never be used in cystitis of gonorrheal origin, nor should silver solution be used in tubercular cystitis. Perineal drainage is to be preferred to suprapubic drainage for chronic cystitis. [J. H. G.]

AMERICAN MEDICINE.

September 27, 1902.

1. Some Observations in Regard to Smallpox.
FREDERICK H. DILLINGHAM.
2. Types of Infection Produced in Man by Intermediate Members of the Typhoid-Colon Group of Bacilli.
WARREN COLEMAN.
3. Clinical Report upon Ureteral Surgery.
CHARLES P. NOBLE.
4. The Prophylaxis of Venereal Disease.
JOHN C. SPENCER.
5. Relaxation of the Synchronosis of the Symphysis Pubis Following Normal Labor, Treated by Resection and Wiring. B. R. SCHENCK.
6. School Vaccinations. WILLIAM R. FISHER.
7. The Hospital of Jerusalem. NICHOLAS SENN.
8. Medical Education. CHARLES W. RICHARDSON.

1.—Dillingham presents some observations on small-pox. He discusses the differential diagnosis of this disease and some of its atypical forms. [T. L. C.]

2.—Coleman discusses the types of infection produced in man by intermediate members of the typhoid-colon group of bacilli. The terms "paracolon" and "paratyphoid" have been introduced to designate bacilli of this complex group resembling more nearly in biological characters, the colon bacillus, on the one hand, and the typhoid bacillus, on the other. It has been found possible to distinguish various species within the paracolon group; these may be divided into the paracolon and the paratyphoid. Broadly speaking, there are 3 types of infection in man due to the typhoid-colon group: These are (1) typhoid type, caused by the paratyphoid bacilli and certain of the paracolons, (2) epidemic meat-poisoning type caused by *b. enteritidis* and its allies, and (3) the psittacosis type, caused by the *b. psittacosis*. In addition to these Grünbaum has suggested that febrile jaundice may be caused by one of the intermediates. Paratyphoid infections do not constitute a clinical entity; the symptoms are practically identical with typhoid fever except for the Widal reaction. Cases so far reported have been mild. [T. L. C.]

3.—Noble presents a clinical report of 9 cases in the field of ureteral surgery. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

June 12, 1902.

1. Contributions Concerning the Recognition of Blood and Albumin by Biological Methods. G. STRUBE.
2. Concerning the New Methods for the Differentiation of Blood by Means of Serum. St. MINOVICI.
3. The Pathological Anatomical Effect of Cysticerci of the Brain. M. ASKANAZY.
4. The Therapy of Glanders. A. STRUBELL. Remarks Upon This Article. FR. SCHULTZE.
5. The Question Concerning the Occurrence of Emboli of the Lungs After Bone Fractures.

J. PUTERMANN.

1.—Strube states that, in the biological study of blood and various forms of albumin, a very definite and careful method of work must be used before one can reach any conclusions that are of value, either scientifically or in practical medicolegal work. In the latter kind of work particularly, the methods must be absolutely free from criticism; because they involve life. The author especially studied the question whether the precipitin reaction is absolutely specific. He insists that active serums produced precipitation in the various forms of blood that he tested. For instance, serum which was presumably specific for human blood gave precipitation with the blood of monkeys, guinea-pigs, hens, calves, dogs, goats and sheep. Other investigators have had the same experience. Strube has come to the conclusion that the more active a serum is for one especial variety of blood, the more energetically it also acts upon the blood of other animals. Uhlenhuth has stated that a reaction should occur, at a dilution of 1:40, within a minute. Strube, however, has noticed the occurrence of reaction with nonspecific blood, in dilutions as great as 1:50, immediately after adding the serum; and in dilutions as great as 1:100, within a few hours. He, therefore, insists that one of the most important matters is to determine the activity of the precipitating serum upon homologous blood, as well as upon the heterologous forms of blood. The activity of the serum depends upon various factors. The author has been able to obtain an exceedingly active serum rapidly, by injecting into the veins, instead of beneath the skin or into the peritoneal cavity. On an average, 6 injections of 1 cc. of defibrinated blood, in the course of 8 days, produced a serum that would precipitate at 1:1000. About 8 days after the last injection, he finds that the antibodies are at their highest point. Serum taken at this time he has preserved for 3 months, unchanged. The animal itself provides active serum for about 4 weeks and then the activity begins to decrease rapidly. These animals can then be re-injected and usually provide a more active serum than before. In order to get satisfactory results, the method used must be always the same and a well-chosen one. One of the most important

points is to avoid infecting one's solutions, as bacteria may soon cause some cloudiness of the solutions. Strube dilutes the blood that he uses with 0.08 per cent. sodium chloride solution and dilutes to .05 per cent. He finds that this gives the best solution to work with. He always uses a control and always observes his tests for several hours. With this method of work, he states that he has been unable to cause precipitation in any except homologous serum with a dilution greater than 1:100, and that at that dilution he has seen only an extremely slight reaction. He notes the importance of using larger animals than rabbits, in preparing serum in considerable quantities, for medicolegal work. When the method is carried out according to the plan that he has indicated, he believes that it provides a very satisfactory means of reaching a determination as to the nature of blood or albumin. It must be placed upon much the same basis as the serum-diagnosis of typhoid fever, for instance. A reaction is obtained only with specific micro-organisms, if the dilution is great enough; and with a very marked dilution, the reaction, in all probability, occurs only with the specific blood or albumin. The author has tried the effect upon various albumins, after injecting another form of albumin; he obtained no precipitation, however, even after using large amounts of serum. He doubts whether the precipitins and the albumins from various animals are absolutely specific and different, however. The results that he has himself obtained—which were mentioned earlier—make it probable that one of two things is the case: (1) That the various animals contain albumins which are not identical, but which are very closely related to each other; and that antibodies act energetically upon the specific albumin and in weaker degree upon the homologous, but closely related albumins, the condition being analogous to conditions met with in typhoid and colon bacilli; or (2), on the other hand, that there are various forms of substances in the injected serum and in the animal's blood, which react with each other, and that with homologous species these all act together, while in heterologous species one or two, or perhaps more—but never all—react; and that, therefore, there is what we recognize as partial reaction. Contrary to Biondi, Strube has found that the serum apparently has a quantitative effect, the amount increasing with the amount of serum. The precipitate appears, undoubtedly, relatively enormous; but this is largely due to its fine, loose character. The author believes that the fact that the precipitin acts quantitatively speaks against its being of the nature of an enzyme. He has attempted to differentiate various forms of albumin in the same solution by fractional precipitation. He has also tried to find a serum which would act specifically upon semen, and not upon other fluids from the same species; he has been unable, however, to find serums that will precipitate semen and will also precipitate bloodserum of the same species. He first precipitated with the serum of an animal injected with bloodserum, in an attempt to get rid of this element; and then precipitated with semen antiserum. He was, however, unsuccessful. [D. L. E.]

2.—Minovici chiefly discusses the literature concerning this question and then notes his own method of working. Fresh defibrinated blood is better than blood that has been kept in an ice-chest. The blood of different animals reacts with various degrees of rapidity. Blood taken from dead bodies does not work rapidly or energetically, and pleural and other exudates do not work well. The author insists that it is important to use careful antiseptic precautions in carrying out the injections into the peritoneal cavity. If one is careful in regard to this point, deaths from infection of the animals practically never occur. After a certain number of injections, Minovici takes a small amount of blood from the ear, tests it and, if it is found active, chloroforms the animal, opens the chest, brings the heart into a sterile vessel, opens it, and lets it pump all the blood into the vessel. In this way, he says, he obtains about 50 cc. of serum from a rabbit. Bloodspots react with specific serum more rapidly according to their freshness, but the author has had a distinct reaction with bloodspots as much as 6 years old. [D. L. E.]

3.—Askanazy notes that reports of sudden death as a result of cysticercus of the brain are not extremely uncommon. He mentions the case of a girl of 20, who had

had moderate headache; but 4 weeks before death the attacks became intense and she was in bed for 2 weeks. Nothing abnormal was found at this time, however. Then, for about 2 weeks, she was up and about, apparently perfectly well. Suddenly, she again had intense headache, repeated vomiting and some obscuration of consciousness, without fever; and the next day she became unconscious without convulsions and died quietly. It was impossible to tell what was wrong during life; and nothing except marked congestion of the kidneys was found post mortem, until the brain was examined, when internal hydrocephalus was discovered and a cysticercus cyst was found in the fourth ventricle. The largest cyst was about the size of a hazelnut; numerous smaller ones were attached to it. It was of the type of the cysticercus racemosus. Microscopical examination showed on the floor of the fourth ventricle, in place of the ependyma, a necrotic mass of tissue, with numerous foreign-body giant cells and smaller numbers of smaller cells. There was a marked proliferation of vessels; and round-cell infiltration with very few polymorphonuclear elements and a moderate number of eosinophiles. The author directs especial attention to the condition of the cerebral arteries in cysticercus, and refers to a case reported by him some years ago, in which there was extremely marked endarteritis obliterans. He adds two further cases, in which there was also an advanced degree of endarteritis obliterans, which was wholly similar to that seen in syphilis; and he believes that there is no doubt that this occurs frequently in cysticercus of the brain. It has not been noticed before, because no especial attention has been paid to the arteries, the parasite itself having been chiefly studied. Zenker, however, has suggested that compression of the arteries by the parasite might cause a sudden, temporary anemia of the brain. The fact that cysticercus can produce a marked obliterating endarteritis is of great importance, particularly in relation to the fact that areas of softening, without evidences of inflammatory reaction in the neighborhood, are frequently found in this condition. [D. L. E.]

4.—The article is chiefly a reply to a previous article by Schultze. In it, Strubell insists that his method of treating glanders with subcutaneous injections of carbolic acid is better than Schultze's method of using applications of corrosive sublimate solutions. He believes that the main effect of the latter is due to the fact that they are warm, moist applications. [D. L. E.]

5.—Putermann reports a case which he believes to be one of pulmonary embolism resulting from fracture. The patient had had a simple fracture of the femur about 3 weeks before. Soon after having the position of the injured leg changed, on account of malposition, the patient was overtaken with pain in the leg, cyanosis, weakness, sharp pain in the right side and cough, followed by severe dyspnea and furious pain in the side, with the expectation of pure blood. There was no fever. [D. L. E.]

June 19, 1902.

1. A New Gasometric Method of Determining the Hydrochloric Acid in Gastric Contents. E. RIEGLER.
2. A Casuistic Contribution Concerning Angina Vincenti or Diphtheroidal Angina. LAEMMERHIRT.
3. A Case of Prolonged Excretion of Typhoid Bacilli in the Urine. BUESING.
4. Gastric Atony and Its Relation to Motor Insufficiency. A. ROSENBAUM.
5. A New Method for Taking Impressions of the Feet. G. MUSKAT.
6. Subcutaneous Rupture of the Spleen. A. SCHOENWERTH.

1.—The method consists in treating the gastric contents with barium carbonate, evaporating on a water-bath and burning gently to an ash; then extracting, adding hydriodic acid, collecting the precipitate, washing, introducing into a special apparatus—similar to the urea apparatus—and treating with hydrazin sulphate. The latter, in its decomposition, gives up nitrogen. From the table given by the author one can reckon the quantity of HCl from the amount of nitrogen set free. [D. L. E.]

2.—The case reported was that of a child that exhibited a necrotic ulcer of one tonsil and an enlargement of the glands at the angle of the jaw. The ulcer became crater-like and the child soon became free from fever and seemed

practically well. The tonsil rapidly healed. Treatment seemed to have no influence. Bacteriologically, the bacillus fusiformis was found, in connection with numerous spirillæ; diphtheria bacilli were absent. This case was evidently one of Vincent's angina, but was peculiar in the fact that but one tonsil was affected, and that no membrane was ever formed, because of the rapid tissue necrosis. [D. L. E.]

3.—A series of soldiers, who had returned from China after having had typhoid fever there, were subjected to examinations for typhoid bacilli in the urine, a very proper regulation having been made that they should not be discharged until upon three examinations the urine was found to be free from bacilli. In the case especially reported, the man had had typhoid fever in October and upon four examinations in April—the latest being on the 17th.—he constantly showed typhoid bacilli. These disappeared almost at once after the use of urotropine. The importance of this case in relation to public health is at once evident. [D. L. E.]

4.—Rosenbaum believes that the splashing sound is of very decided importance in diagnosis. He considers that if, after taking about 250 to 300 cc. of fluid, a splashing sound can be obtained a quarter of an hour later, this indicates gastric atony. If the sound is persistently present, it indicates gastric ectasis. If, about an hour after taking 200 to 250 cc. of fluid, more than 50 cc. can be obtained with the tube, it indicates insufficiency of the pyloric portion; while, when this sound is absent, yet atony is present, it indicates that the weak portion is the fundus. In atony of the fundus, retention, in the author's belief, does not occur. He describes a number of cases of carcinoma of the fundus without involvement of the pylorus, which indicate the correctness of this view. He discusses a number of cases of idiopathic ectasis and insists upon the importance of gastrosucchorrhea or hypersection in producing this ectasis. The hypersection may be the result of a spasm of the pylorus; or, it may be the primary cause of the spasm and, consequently, of the ectasis. [D. L. E.]

5.—Muskat uses ordinary hektograph ink and smears this, in a thin sheet, on fine paper, allowing it to dry. He then takes some ordinary pasteboard sheets, a little larger than the foot, moistens the pasteboard, lays a sheet impregnated with the ink on the pasteboard and has the patient place his foot firmly on the sheet. He then marks out the contour of the foot with a blunt instrument. The method can be carried out very rapidly. [D. L. E.]

6.—The accident occurred in a soldier of twenty-two, who was kicked in the left side by a horse. There were signs of internal hemorrhage and some blood appeared in the urine. There was no distinct evidence of blood in the abdominal cavity. A diagnosis of subcutaneous rupture of the kidney was made. The possibility of subcutaneous rupture of the spleen was considered. Operation showed that the lower fourth of the kidney was torn completely away. There was a very extensive hematoma posterior to the peritoneal cavity. The spleen was torn entirely loose, and was free in the abdominal cavity; and yet there had been but extremely slight hemorrhage from the splenic vessels, probably because they had been ruptured by torsion, the twisting having prevented the bleeding. [D. L. E.]

June 26, 1902.

1. The Clinical Value of Sahli's Method for Testing the Functions of the Stomach. E. v. KOZICZKOWSKY.
2. Concerning Thrombosis of the Veins in Acute Articular Rheumatism. A. HESS.
3. Concerning Acid-Fast Bacteria. A. MOELLER.
4. The Disorders Produced by the Trichocephalus Dispar. E. BECKER.
5. The Determination of the Quality of Mothers' Milk Through Its Microscopical Appearance. Observations Concerning the Article of Friedmann in *Deut. med. Woch.*, No. 4, 1902. ADOLPH WINTER.

1.—The value of the method proposed by Sahli in a recent number of the *Deut. Archiv. für klin. Med.*, would be very great if the method itself were exact. Koziczowsky has made an interesting study of the method and decides that it is extremely probable that the fat in the test-meal does not remain equally divided in all portions of the stomach-content, after the meal is taken into the stomach. An

irregular quantity of fat or of fluid is, therefore, probably passed on into the intestine from time to time; and a determination of the fat in the remaining portion gives no exact idea of the amount of the original test-meal that has been retained, or of the quantity that has been secreted by the stomach. The author does not consider his results sufficient to establish this positively, but he has little hesitation in saying that it is probably true. [D. L. E.]

2.—It is generally stated that thrombosis of the veins is rare in acute articular rheumatism, although Pribram says that it is not so rare as it is usually considered to be. Hess reports 2 cases, both of which were interesting because of the unusual localization. In the first, there was thrombosis of the veins of both arms, of the inferior vena cava and of both common iliacs. This patient recovered. The second patient had thrombosis of the same veins as the first and also of the superior vena cava. The involvement of the venæ cavæ is very unusual. The second patient died. Microscopical examination showed inflammatory changes in the vessel-wall and marked round-cell infiltration of the surrounding tissues; there was also weakness of the heart and pulmonary congestion, so that stasis of the blood may have had some activity in the production of the process. This patient had, as interesting symptoms, also, convulsive attacks, with brief cessation of the respiration and the heart-action. These attacks were due to the severe cardiac disturbance, to the carbon-dioxide intoxication or—not improbably—to involvement of the vagus through the thrombosis in the neck. [D. L. E.]

3.—Möller states that he has been able to cultivate bacilli which had all the characteristics of the smegma bacillus, in large numbers—first, in the serum of blisters on the skin, the serum and the bacilli being then transferred to the incubator, a decided growth of the bacilli being observed within 48 hours and a distinct culture developing after 3 or 4 days. He afterwards found it easier to cultivate smegma bacilli on human serum. He describes the morphology and the cultural characteristics of this bacillus. He also states that he has frequently found pseudotubercle bacilli in the mucus from the nose, mouth and throat of normal persons; and, during an attack of bronchitis; he found in his own sputum small gray granules, which contained numerous bacilli closely resembling tubercle bacilli, but which he thought he could determine not to be such. He is still perfectly well, after three years. Also, in a case of acute exudative pleurisy, he found a great many bacilli which were considered tubercle bacilli; but they grew rapidly on the serum when placed in the incubator and cultures were readily obtained at room-temperature. He believes, therefore, that these were not tubercle bacilli and that the pleurisy was probably not tuberculous; at any rate, the patient recovered and remained well for a year. [D. L. E.]

4.—The literature relating to disorders possibly due to trichocephalus dispar is first discussed, and then two cases are mentioned—one of them briefly—in which this parasite was found in large numbers in the feces. The first patient had various nervous symptoms and abdominal pain. He also had severe changes in the blood, as did the second patient. The first recovered very rapidly after the parasites had been killed by means of benzine enemata. In the second case this treatment could not be carried out. Becker believes that these parasites do actually cause symptoms, which are chiefly as follows: The signs of catarrh or ulceration of the large intestine and marked nervous symptoms, which may even resemble meningitis and may sometimes be so severe as to cause death; finally, there are signs of severe anemia and the nervous and other symptoms that are due to anemia. One set of these symptoms may be seen alone or may be in combination with the others. The blood-changes seen were similar to those in severe chlorosis, although the changes in the form and size of the red cells were more marked. [D. L. E.]

5.—Winter, in an exceedingly scornful vein, states that his chief, Biedert, had discussed the importance of the microscopical examination of mothers' milk long before Friedmann did, and that he had practically reached the decision that it was impossible to draw very important conclusions from microscopy alone. [D. L. E.]

MÜNCHEN-ER MEDICINISCHE WOCHENSCHRIFT.

July 1, 1902. (No. 26.)

1. The Sanatorium Treatment of Tuberculosis. HAMMER.
2. The Clinical Significance of Mobile Retroflexion of the Uterus. E. WORMSER.
3. Some Rare Cases of Migraine. PAESSLER.
4. Iso-agglutinin in the Serum of Healthy and Diseased Men. A. von DECASTELLO and A. STURLI.
5. Movable Heart. LEUSSER.
6. The Pathogenesis of Acute Articular Rheumatism. KOLLMANN.
7. Albumin and Sugar Reaction at the Bedside. STICH.
8. Self-Disinfection in Obstetrics. KRÖNIG.
9. Reply to the Article of Professor Hofmeier: "The Prevention of Puerperal Fever." C. von SCANZONI.
10. Smallpox in London and the English Vaccine Law. OPPE.

1.—Hammer has studied the statistics of patients sent to the sanatorium for the treatment of consumption. There are 127 cases included in his figures, 95 men and 32 women. Among the men occupations associated with dust seemed to be more serious than other forms. Among the women occupation did not play an important role. Of 90 men sent to the sanatorium 61 showed some improvement, of which 29 are said to have recovered the ability to work. Some of these patients have been able to continue at work for 2 years and a half and on the average for a little over 13 months. Thirty-two patients showed improvement, that is, they were able to do light work, but the average duration of improvement was only one and one-third months. Twenty-two patients did not improve. Many have died and the others are either dying or entirely unable to work. Comparison of these cases with others that were not treated in a sanatorium gave the remarkable result that statistics of the former were no better than those of the latter. In any form of treatment it appears, that early diagnosis is most important, and Hammer believes that tuberculin injections are the most valuable means for this purpose. [J. S.]

2.—Wormser discusses the significance of retroflexion of the uterus. He does not believe that ordinarily it produces any marked change in the circulation, that it interferes with conception, that it predisposes to abortion, nor does he think that it has been definitely shown that it is a particular cause of dysmenorrhea, that it causes symptoms of pressure or that it has much to do with the so-called reflex conditions. It has been shown that these symptoms appear more frequently in cases of ante flexion than in cases of retroflexion. Moreover, many women apparently recover from their troubles although the retroflexion has not been cured by treatment. The paper is still unfinished. [J. S.]

3.—Pässler reports the case of a healthy young man whose mother had had migraine. He had a severe fall without injuring his head and a few weeks afterward had a characteristic attack of migraine consisting of the sensory aura, then aphasic disturbances of speech, nausea, vomiting and gradually increasing headache, usually more severe on the side opposite to that on which the aura had first occurred. There were some vasomotor disturbances in the head and dilatation of the pupil on the side chiefly involved. The second case, a servant, 31 years of age, had a severe headache every morning. There was pressure in the eyes, photophobia, tear secretion, reddening of the face with the subjective signs of heat. There was vomiting of bile, severe thirst and extreme weakness. During the attacks the pupils were dilated and did not react to light. The third case, a man, 38 years of age, had worked in lead. For 2 years he had had severe attacks of migraine commencing on the left side posteriorly and associated with cerebellar ataxia. When the attacks occurred at frequent intervals, these motor disturbances were persistent, and the reflexes were greatly increased. The interesting points about these cases are the relation of the disease to injury in the first case, the occurrence of disturbances of the pupils in the first and second, the presence of aphasia in the first case and especially the cerebellar ataxia in the third. [J. S.]

4.—Decastello and Sturli have studied iso-agglutination in a number of cases, allowing the serum to act upon

12 specimens of red bloodcells. They used blood from 174 individuals, 19 being newborn children or not over 6 months, 21 children from 6 months to 14 years and 134 over 14 years of age. One hundred and twenty-one of the 155 cases over 6 months of age suffered from some form of disease. The results of these investigations show that isohemagglutinin is present in the blood of nearly all persons over 6 months of age. Sometimes, however, iso-agglutinin is absent and sometimes a specific susceptibility of the erythrocytes may also be absent. Iso-agglutinin has no significance in diagnosis. In newborn and young infants certain atypical reactions are observed that indicate that the agglutinin apparently primarily originates in the serum and subsequently immunizes the red bloodcells. Iso-agglutination is not due to the destruction of the blood either physiologically or pathologically, nor does it bear any relation to the formation of rules. [M. O.]

5.—Leusser, after describing a series of cases, states that, if the area of cardiac dullness is normal when the patient stands up or lies on the back, but is replaced by an area of resonance between the sternum and the left border of the heart when the patient lies on the left side and at the same time there is displacement of the systolic shock to the left and its return to its original position when the patient rolls on the back, a diagnosis of floating heart is justified. [J. S.]

6.—Kollmann reports the case of a man, 29 years of age, who had typical acute articular rheumatism, and during his convalescence his mother suffered from the same disease, although previously she had never had any rheumatic disturbances. In connection with other similar cases this goes to prove the contagiousness of this condition. [J. S.]

7.—Stich describes a small apparatus containing two test-tubes, one holding the agents, the other for the reactions and some small cubes impregnated with alcohol to burn on the top of the case so that the urine may readily be tested for sugar and albumin, at the bedside. [J. S.]

8.—Krönig, in reply to Hofmeier, categorically states his opinion as to the infection of the puerperal patient, as follows. Autogenous infection, or endogenous infection from the vagina is not likely for the streptococcus, staphylococcus and colon bacillus. Autogenous infection with the bacteria of the skin is, however, possible. [J. S.]

9.—Scanzoni discusses Hofmeier's article and believes that his results will soon be the same as those in other clinics. [J. S.]

10.—Oppe calls attention to the fact that the recent epidemic of smallpox in London has been a brilliant contribution to the evidence of the value of vaccination. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

July 7, 1902. (39. Jahrgang, No. 27.)

1. The Minimal Narcosis in Minor Surgery, Reduction of Fractures, etc. RIEDEL.
2. The Completing Ability of Amboceptors.
J. MORGENROTH and H. SACHS.
3. On Nephrolysins. G. ASCOLI and F. FIGARI.
4. Ulnar Paralysis after Typhoid Fever. K. LIEPELT.
5. Bilateral Congenital Cartilaginous Remains in the Neck. ENGELMANN.
6. Receptors of the Milk Albumin Bodies.
FRITZ MEYER and LUDWIG ASCHOFF.
7. The Treatment of Congenital Clubfoot in Infants.
W. von OETTINGEN.

1.—For short anesthesia Riedel always employs chloroform. From 80 to 100 drops, given in 2 minutes, are sufficient for minimal narcosis. This method is of value for extracting teeth; for incising the skin in goiter operations, finishing with local anesthesia; arthrectomy of the shoulder; operations on lymphglands; incising furuncles; resection of the small bones of the extremities; and reposition of fractures of the radius, etc. [M. O.]

2.—Morgenroth and Sachs describe a number of experiments upon amboceptors, showing their completing ability, and the variability of the complements. They support the

contentions of Ehrlich, not agreeing with Gruber's conclusions. [M. O.]

3.—Ascoli and Figari, as a result of investigations, conclude that nephrolysins are toxic for the central nervous system to a great extent, causing death in animals after subdural injection. Their experiments with autonephrolysins and heteronephrolysins follow in detail. The effect in nephritis is also noted. M. O.]

4.—Liepelt reports a typical case of paralysis of the right ulnar nerve in a man of 20, following an attack of typhoid fever of moderate severity. Recovery resulted rapidly. But 11 other cases are on record. [M. O.]

5.—Engelmann reports the rare case of congenital remains of the branchial arches on both sides of the neck, found in a Russian student during operations on tuberculous lymphglands. [M. O.]

6.—Meyer and Aschoff report a number of experiments with lactosera, showing the specific characters of immune bodies. [M. O.]

7.—Will be abstracted when concluded.

July 14, 1902. (39. Jahrgang, No. 28.)

1. Quinic Acid in the Treatment of Gout. HUBER and LICHTENSTEIN.
2. The Chemistry and Biology of Albumin Bodies.
F. UMBER.
3. Remarks upon Adamkiewicz's Article on the Successful Treatment of Cancer with Cancroin.
H. NOTHNAGEL.
4. Remarks upon Adamkiewicz's Article on the Successful Treatment of Cancer with Cancroin.
von EISELSBERG.
5. The Treatment of Cancer with Cancroin. POTEN.
6. A Carcinomatous Uterine Myoma Treated with Cancroin Without Success. SCHULTZ-SCHULTZENSTEIN.
7. The Treatment of Congenital Clubfoot in Infants.
W. von OETTINGEN.

1.—Huber and Lichtenstein have noted excellent results in treating gout with quinic acid, given as sidonal. The excretion of uric acid is decreased in gouty patients and both that and the sugar diminished in cases of diabetes, after sidonal has been given. The causes of these results are discussed. [M. O.]

2.—Umbert describes his method of obtaining crystalline albumin bodies after separating the globulin. His experiments are fully given, showing that the precipitating principle of active serum is precipitated with the globulin. It is only possible to distinguish the whole albumin bodies of related animal species, not the separate albumin bodies of animals of the same species. [M. O.]

3.—Nothnagel, referring to a case already reported by Adamkiewicz as having been cured with cancroin, states that the patient in question still suffers from gastric cancer. [M. O.]

4.—In another case of cancer, this time of the esophagus, reported by Adamkiewicz as improved by cancroin, von Eiselsberg found no signs of improvement. [M. O.]

5.—Poten used Adamkiewicz's cancroin in hopeless cases of uterine and mammary cancer, both of his patients dying in spite of treatment. [M. O.]

6.—Schultz-Schultzenstein reports a case of uterine myoma which had undergone carcinomatous degeneration. In this case cancroin had no effect. [M. O.]

7.—Will be abstracted when concluded.

WIENER KLINISCHE WOCHENSCHRIFT.

July 10, 1902. (XV. Jahrgang, No. 28.)

1. Upon Counting Leukocytes. WILHELM TUERK.
2. Further Investigations upon the Action of Bactericidal Immune Sera. FREDRICH WECHSBERG.
3. Cavernous Lymphangioma of the Vocal Cord.
JOHANN FEIN.
4. Intravenous Infusion of Oxygen. GUSTAV GAERTNER.
- 1.—Will be abstracted when concluded.

2.—Wechsberg reports several experiments, showing that the solution of human erythrocytes does not follow the addition of small amounts of normal rabbit serum containing complements. They also show that not the grade, but the manner in which the immune serum is added, seems to determine the solution of erythrocytes. While a fresh bactericidal serum causes no restriction of hemolysis, serum that has been kept some time shows such restriction, even in small doses. This he explains by the fact that, while anti-complements are present in fresh serum and become manifest with activity, complementophilic amboceptoids, in effect like anticomplements, develop in serum which has been kept for some time. [M. O.]

3.—Fein reports a case of cavernous lymphangioma of one vocal cord, in a man of 28, hoarse for several months. The tumor was removed under cocaine anesthesia. A histological description follows, with a review of the literature. [M. O.]

4.—Gaertner describes many experiments on dogs, in which oxygen was given by intravenous injection. Even when continued some time no harm resulted. No change was noted in the pulse tracing until it had been given a long time, and no gas was ever found in the left heart. While nitrogen is a poison, acting as a foreign body in the veins when air enters, oxygen has no bad effects, being absorbed at once. Gas emboli in the lungs or heart are very quickly absorbed after the injection ceases. Blood-pressure, which falls during the injection, soon rises again on ceasing. Oxygen injected intravenously is therefore indicated in asphyxia from any cause. It should be chemically pure. Should any threatening symptoms arise, the injection should immediately be stopped. With a weak heart great care should be taken in giving the injections. Gaertner's work covers the investigations of 2 years. [M. O.]

ARCHIV FUER VERDAUUNGSKRANKHEITEN.

Bd. VIII., Hfte. 1 and 2.

E. von Leyden on his Seventieth Birthday.

1. Concerning Intestinal Dyspepsia. KNUD FABER.
2. Further Contributions concerning Occult Gastric Hemorrhages. J. BOAS and A. KOCHMANN.
3. Contributions Concerning Antiperistalsis in the Intestine (Grützner). J. C. HEMMETER.
4. On Heterochylia. GEORG KORN.
5. Concerning the Frequency and the Heredity of Gastro-Intestinal Conditions in Families. F. A. JUNG.
6. Hyperacidity (Superacidity, Hyperchlorhydria, Superaciditas Chlorhydrica). A Clinical Study. H. ILLOWAY.
7. Sugar as such in the Diet of Dyspeptics. WILLIAM GERRY MORGAN.

1.—Faber insists that there are many symptoms which have been customarily included under the class of gastric symptoms, that are actually due to disease of the intestines. He refers to the comparative frequency with which gastric symptoms are due to other abdominal diseases, such as gall-stones, renal calculus and the like; and then describes a series of cases in which he believes that he determined that symptoms which were almost purely gastric were actually due to disturbance of the intestine. The main characteristics of these cases were that the patients had, for some time, suffered from more or less marked constipation, which had been more or less completely neglected. Then there appeared gastric symptoms, which were chiefly cardialgia, eructation, loss of appetite, nausea, vomiting and usually more or less marked nervous symptoms, such as headache, depression, sleeplessness and vertigo. Treatment directed solely toward improving the condition of the stomach did more harm than good; while the use of diet rich in cellulose, small doses of castor oil and similar measures, directed purely towards the intestines, entirely overcame all symptoms. The most striking symptom in these cases was cardialgia. Indeed, the symptoms

closely resembled those of hyperacidity, although the patients, at times, had entirely normal secretory conditions. The nervous symptoms were also, in a number of instances, very prominent features of the case. The author also directs attention to the frequency of similar symptoms in patients who have tape-worm—an association which he says is particularly frequent in Denmark. He believes that this intestinal dyspepsia, so-called, is very common. Among the features which indicate that the intestine is the actual seat of the trouble, are the absence of physical signs of gastric disease, the history that constipation preceded the symptoms for a long time and hyperesthesia in the lower part of the abdomen, rather than above the umbilicus. [D. L. E.]

2.—Boas and Kochmann first discuss the methods which are useful in the examination of the gastric contents for small amounts of blood, and conclude that Weber's is the only satisfactory one. This is carried out by taking about 5 cc. of the gastric contents or feces, adding one-third the volume of glacial acetic acid, shaking thoroughly, extracting carefully with ether, and adding to some of the ether extract 30 drops of old turpentine-oil and 10 drops of tincture of guaiac. If blood is present, there is a blue color, which becomes more marked if water and then chloroform are added and the mixture shaken. The guaiac tincture should always be fresh. The authors report the examination of 257 cases, dividing them into 3 groups, somewhat modified from the 3 groups that Boas had previously made. In the first group the result was negative; this included cases of anacid, acid and subacid gastritis, hyperacidity and hypersecretion. In the second class—those with variable conditions—were included those with gastric ulcer, duodenal ulcer, spastic stenosis of the pylorus, benign dilatation and duodenal stenosis. In the cases of spastic pyloric stenosis and benign dilatation the authors found that, so long as large masses of food-remnants were present, the result was more or less strongly positive. In the course of treatment, as the retention became less marked, the blood-test became weaker and weaker and finally disappeared. The cause of the hemorrhage in these cases is to be found in Talma's experimental work, which showed that, after constricting the pylorus, at those points where the most marked stress came from the stagnating stomach-contents, hemorrhages or ulcers occurred in the mucosa; and that the hemorrhages were more marked when the animals had previously taken food. In the third group they include all cases of gastric carcinoma, with 2 exceptions only. In this class blood was found constantly, at repeated examinations, even when food-remnants had become much less marked under treatment. Hemorrhage is, therefore, most constant in carcinoma. While they do not consider that the discovery of occult hemorrhages from the stomach is sufficient, of itself, to incite the existence of carcinoma, the authors do believe that this is a valuable sign. It is particularly useful in those cases of doubtful gastric or duodenal ulcer which are very frequent. If blood is found, it, of course, speaks emphatically for ulcer; and its constant absence speaks with some emphasis against ulcer. If HCl. is absent and the motor power is good, and if blood is absent from the gastric contents or feces constantly, the case is, with the greatest probability, not carcinoma. In cases in which there is stagnation in the stomach, the test is much less distinctive; although it is a useful addition to what we already have. In the absence of stagnation, it is a very important sign. The authors state that the test can be readily carried out on feces and it may often give positive results in this way, when it is undesirable or impossible to examine the gastric contents. [D. L. E.]

3.—Hemmeter states that small particles travel, in man, from the rectum to the stomach; and that this movement is more marked when the particles are suspended in physiological salt solution, while the movement is interfered with or entirely absent when the injected masses are suspended in the weak potassium chloride or hydrochloric

acid. The movement occurs along the walls of the intestine. The upward movement of these particles to the stomach is coincident with the downward central progress of the fecal masses themselves. This fact, he says, can be observed with the X-ray after injecting subnitrate of bismuth. The colored particles can be observed through the intestinal wall in very small animals, such as mice. This antiperistalsis cannot act upon ingesta in large masses; and, hence, cannot explain the digestion of nutritive enemas. [D. L. E.]

4.—Korn describes a number of cases of the condition which has been termed heterochylia, in which varying conditions of the gastric contents are found. These cases indicate the necessity for making repeated examinations of the gastric contents, before reaching any important diagnosis. [D. L. E.]

5.—Jung reports his study of 597 cases in which he has made examinations of the gastric contents. About one-third of these cases showed hyperchlorhydria. His average figures were 80 to 110, but in one case he found an acidity of 237. Gastropnoxis and enteropnoxis, in women, furnished about one-fourth of all the cases; the same condition in men, about 3 per cent. of the cases. The cases of atony furnished 10.7 per cent. of the total, the atony being determined, in these cases, by Mathieu's method. As to the influence of heredity, the author divides the cases into those in which there was no special similarity in the condition of the gastric contents or in the disease itself, but there was a family relation; and those in which there was not only a family relation between the patients, but also a similarity in the analysis of the gastric contents or in the disease. In 40 families, he found 98 individual cases. Fourteen families showed no similarity of the disease; in 26 families the condition was similar. Enteropnoxis was repeatedly present in 13 of the 40 families, and cases of enteropnoxis were present in 27 of the 40. Hyperchlorhydria was found in 62.5 per cent. of the families. [D. L. E.]

6.—Illoay reports the results of his study of 110 cases of gastric disease, including carcinoma. Twenty-three cases showed hyperacidity; 20 cases, hypoacidity and 67 cases remained, which he considered to have normal chemical conditions of the gastric contents. The acidity in these cases varied from 46 to 90, most of the cases showing an acidity between 50 and 80. The cases of hyperacidity varied in their acidity from 52 to 120, only 3 of the cases, however, being above 94. The author considers that this indicates that the condition which clinically is hyperacidity, is not distinguishable, in many cases, from normal conditions, by the mere chemical examination of the gastric contents. He also investigated the amount of free acid, as compared with the total acidity; and found, in this way also, that it was impossible to determine the existence of hyperacidity. He goes into a discussion of the symptomatology of the condition, in which he mentions particularly the following symptoms: A fairly well or very well preserved patient, having a good appetite—the latter sometimes being excessive—rarely vomiting, sometimes attacks of gastralgia, usually a high acidity (but not necessarily higher than normal) and with unusually rapid digestion and emptying of the stomach. The author discusses the statements of Strauss and Schüler, that in hyperacidity the quantity of contents is unusually large, that the contents are nearly or entirely fluid, and that the specific gravity is low, and that amidulin is present in abnormally large quantities. He does not think that the appearance of the gastric contents has any characteristic features. As to the specific gravity, he agrees with these authors that it is usually very low, although it may occasionally reach higher figures; but he does not think that the specific gravity has any relation to the acidity. He agrees that the amidulin reaction is usually excessively marked, but he particularly directs attention to the fact that it persists much longer than normally. Pain is a marked symptom of the condition. It is increased by carbohydrates and by stimulating substances, such as tea, coffee and spices.

The pain is usually increased by alkalis and decreased by acids. Burning in the epigastrium is very common, and so is acid eructation. Constipation is a very frequent condition. Under the head of causes, the author mentions prolonged constipation, excess in the use of alcohol and tobacco, the prolonged use of food that is digested with difficulty, and nervous disturbances. The diagnosis can be made only when a group of these symptoms is found present. The common complications are atony and gastropnoxis. In the treatment, Illoay recommends the absolute restriction of alcoholic drinks, tobacco, acid-forming drinks and spices; and the use of large amounts of nitrogenous food, following the astonishing plan that, when an excess of labor is thrown upon an organ, it will tire out after a time, and, hence, that the state of overirritation will ultimately vanish. [D. L. E.]

7.—Morgan reports some experiments to determine the effect of large doses of sugar upon gastric digestion. It has been well demonstrated by a series of authors that sugar shields the nitrogenous tissues. Morgan's work shows that sugar in large amounts, in those who are normal and in those who are not, reduces the secretion from the stomach, decreasing both the acids and the enzymes; hence, it would be useful in the treatment of hyperacidity. [D. L. E.]

LA SEMAINE MEDICALE.

April 23, 1902.

Improvement to be Realized in the Mercurial Treatment of Severe Manifestations of Syphilis. LEREDDE.

Leredde lays down the two following propositions: (1) The grave manifestations of syphilis should be treated only by mercurial injection. (2) It is absolutely necessary to give large and increasing doses of mercury to guard against the ravages of the disease. The therapeutic effect of mercurial injections depends upon the dose of mercury introduced into the body, and the value of the various preparations generally employed depends upon the amount of the mercury which they contain. In treating a case of severe syphilis, should the symptoms not rapidly abate when ordinary doses of mercury are used, it is necessary to increase the amount of the drug. No fixed amount can be laid down that will serve for equally severe symptoms in different cases. The personal equation must be taken into account, the amount which will prove efficient may have to be largely increased in another. He regards the soluble preparations of the mercurial salts as more active than those of the insoluble salts. The condition of the teeth and of the mucous membrane of the mouth should be carefully examined and kept in as healthy a condition as possible. If this is done the danger of mercurial stomatitis is small. He believes that mercury is given much too guardedly in severe cases and regards such a dose as 4 gm. of mercurial ointment as much too small for a patient in whom there are manifestations of the disease attacking the nervous system. If this involvement is suspected or threatened, energetic treatment should be at once instituted. The physician should inject subcutaneously 3 or 4 cg. of the cyanide or sublimate, or 6 to 8 cg. of the benzoate or biniodide (these two latter salts being weaker in the contained mercury). Even these large doses may be increased if the patient's condition does not rapidly improve. He advises in such conditions an injection twice weekly of 7 to 10 cg. of the mild chloride. These doses are recommended for a robust man and should be reduced by 25 per cent. if the patient is a woman. He believes that many of the so-called incurable cases would be found curable if large doses of mercury by injection are practised as he recommends. [T. L. C.]

April 30, 1902.

A Case of Alexia Due to Operation. L. BARD.

The patient was a man of 56 years, who presented a homonymous right hemianopsia which was complete and characteristic. There was a history of frequent epileptic crises, sometimes followed by delirium and mental perturbation. There was also present some weakness of the memory and a verbal alexia. The pupillary reaction was

normal, as were the eye-grounds. He presented well-marked atheroma and an aortic murmur. He had been operated on about a year before and trephined as a last resort to relieve the epileptic attacks. The symptoms grew rapidly worse after the operation and the alexia which had been partial became complete. The epileptic attacks became more frequent also. Bard believes that as a result of the operation the patient suffered from a traumatic epilepsy engrafted on the original condition and he particularly emphasizes the danger of surgical interference in such cases. The cerebral circulation is already weakened and there is a likelihood, as in the case cited, of thus inducing a functional aggravation of the nervous symptoms. [T. L. C.]

May 7, 1902.

On Hypertrophic Stenosis of the Pylorus. OETTINGER.

Oettinger gives the history of a case of a man of 37 years, previously healthy, who for 10 years had suffered from a series of digestive disturbances. There was a sense of weight in the epigastric region after eating, followed by severe pain which usually came on about 2 hours after food and which was of varying duration. These symptoms continued for about 2 years when he began to suffer from vomiting spells which usually came on some 2 hours after his dinner in the evening. The quantity of material ejected was very considerable, often reaching 7 or 8 liters in amount. The pain was always relieved after the vomiting. There was no hematemesis or vomiting unless food had been taken. The patient had lost 30 kilograms in weight and was extremely weak and emaciated. An examination of the stomach contents after a test-meal was as follows: Acidity 2.10; total chlorides 3.50; free hydrochloric acid 0.15; combined chlorides 1.95; fixed chlorides 1.40. It is not at all difficult to make a diagnosis of stenosis of the pylorus, but the origin of this stenosis gave rise to some doubt. Gastric cancer was excluded on account of the age of the patient and the extended duration of his illness. Gastric ulcer which had become cicatrized was excluded on account of the complete absence of the early symptoms of ulcer as well as by the results of the examination of the gastric contents. The patient's condition continued to grow worse and an operation was performed. During the course of the laparotomy there was found to be considerable dilation of the stomach but at the same time the organ free from any adhesions to the peritoneum. At the level of the pylorus there was distinct induration which extended a distance of 8 to 10 cm. from the pyloric orifice. The walls of the stomach in this region were hard and of a pearl color. Conceiving a possibility of cancer of the stomach, the surgeon, M. Chaput, did not content himself by practising a gastro-entero-anastomosis, but resected a greater portion of the pyloric end. The patient made a rapid recovery in all respects. Microscopical examination of the tissue removed showed that the patient suffered from a benign stenosis of the pylorus of extremely slow development, and that the cause of this stenosis was a fibroid degeneration of the parts involved. Oettinger discussing the possible causation of this condition takes the view that it is due to an induration of the submucous tissues of inflammatory origin and very probably due to a chronic lymphatic edema. [T. L. C.]

May 14, 1902.

Are the Anopheles the Sole and Indispensable Agents in the Transmission of Malaria?

G. MONTORO DE FRANCESCO.

In an elaborate inquiry devoted to this subject and based upon extensive clinical experience, de Francesco concludes that malaria is present in localities absolutely free from anopheles and that the co-existence of these dipterous insects and of infected patients does not imply necessarily that the diffusion of the disease is dependent upon the insect. He states that the anopheles and without doubt other insects may play a role in the transmission of malaria, but he believes this is but one of the means by which the disease is spread and he holds the old point of view that the exhalations of stagnant waters and the breathing of air impregnated with humidity, especially in the early morning and closing hours of the day, are the most important factors in producing infection. The soil itself is the true habitat of the hematozoan. [T. L. C.]

May 21, 1902.

Valvular Lesions of the Heart Due to Strain From the Point of View of the Accidents Arising From Effort.

F. de QUERVAIN.

It is convenient in order to establish the mechanism of lesions of the heart due to exertion to make a distinction between those which result from prolonged muscular effort and those which are caused by sudden exertion. As to the etiology of such condition we may study our cases separately and distinguish a predisposing and an immediate cause. Under the first heading, these lesions might occur in patients who have suffered from an acute infectious disease, from arteriosclerosis, nephritis, gout, syphilis and chronic alcoholism. It has been found that in those patients suffering from a predisposing cause the particular lesion developed is usually of the aortic valves. A sudden violent strain or an extra demand upon the heart already doing its maximum work may produce valvular lesions. The author deals with the physical signs, the course and treatment of traumatic endocarditis. He discusses the insurability of such cases from the medical examiner's standpoint. [T. L. C.]

May 28, 1902.

The Evolution and Mode of Cure of Cirrhotic Ascites.

M. A. CHAUFFARD.

In concluding a paper on this subject Chauffard states that, given a case of cirrhosis with ascites, the fluid may be removed in part but not entirely. When the liver is hypertrophied this absorption cannot be obtained unless the process of serous retention be substituted by an increased elimination, and he states that the kidney and the intestines are the two means which should be utilized to bring about this end. If renal elimination is maintained, it offers the best method, but even when this is not the case, a cure may often be brought about by repeated purgations. [T. L. C.]

June 4, 1902.

Appendicular Dyspepsia and Its Surgical Treatment.

L. LONGUET.

Under the title appendicular dyspepsia the writer includes the gastro-intestinal symptoms which result from a chronically inflamed appendix. He describes the symptoms to which chronic appendicitis gives rise as well as the diagnosis of such cases and he recommends that the treatment be surgical. [T. L. C.]

THE JOURNAL OF NERVOUS AND MENTAL DISEASE.

June, 1902. (Vol. 29, No. 6.)

1. The Knee Jerks in Transverse Lesion of the Spinal Cord. WILLIAM A. TURNER.
2. The Localization of the Reflex Mechanism. G. L. WALTON.
3. The Acoustic Tract. M. ALLEN STARR.
4. Report of a Case of Tumor of the Frontal Lobe. F. X. DERCUM.
5. Report of a Case of Tumor of the Frontal Lobe, With Operation. W. W. KEEN.

1.—Turner, in his article on knee jerks in transverse lesion of the spinal cord briefly states his conclusions as follows: (1) The condition of the knee jerks after experimental transection of the spinal cord in monkeys is not constant; the higher the level of the transection, the greater the likelihood of the knee jerks being temporarily diminished or abolished. In these observations there is found a confirmation of the experimental data given by Rosenthal and Mendelsohn and by Gad and Flatau in dogs. (2) No such difference according to level is found in transections of the human spinal cord; all complete transections above the lumbar enlargement lead to abolition of the knee jerks, most probably of a permanent character. But temporary abolition of the knee jerks, sometimes for a prolonged period, may follow incomplete anatomical transection, although the other co-existent phenomena point to a complete physiological lesion. (3) In man, as experimentally in monkeys, although the knee jerks may be abolished, some true reflex actions are permanently maintained; such as the plantar and the superficial anal reflexes; and, notably in monkeys, the crossed adductor

jerks. (4) Accepting the view that the state of the knee jerk indicates the degree of the neuromuscular tone, if some other muscular action dependent upon "tone" is found to be abolished in spinal transection as well as the knee jerks, it may legitimately be argued that neuromuscular tonus is impaired or abolished in physiological transection; such other atonic paralysis is to be found in the "yawning" of the anus. (5) Therefore, it may be concluded that in spinal transection in man and in high transection in monkeys, actions dependent upon neuromuscular tone are permanently or temporarily abolished; but that true reflex movements are not impaired. (6) The variation which exists in the phenomena following lesion at different spinal levels in dogs and monkeys, the transitory effects of such lesions as regards the knee jerks, as well as the temporary abolition of the knee jerks in incomplete lesions in man, would preclude the general application of Bastian's theory; for there is nothing yet recorded to negative the view that the mechanism which produces loss of knee jerks in man, or their temporary abolition in the lower animals, is not to be found in the spinal cord itself. (7) The explanation of the discrepancy which exists between the results of transection in laboratory animals and man may be explained by the greater autonomy of the spinal segments in maintaining neuromuscular tonus as we descend the vertebrate scale. [T. M. T.]

2.—Walton names among the apparently contradictory propositions, the reconciliation of which is impossible on the supposition of single centers and difficult even with the aid of multiple centers, the following: (1) In cerebral hemorrhage the paralysis may be at first flaccid and the reflexes abolished. (2) If the connection between the brain and the lumbar cord is permanently severed, the knee jerk does not return, but the plantar reflex may return. If the destruction of the upper cord is gradual, the knee jerk does not disappear, but becomes exaggerated. (4) If pyramidal transmission is re-established, the knee jerk returns and under certain circumstances is exaggerated; the cutaneous reflexes are diminished if the patient is an adult, preserved if a young person. (5) The Babinski reflex may appear at the onset of high lesion during the period of flaccidity and absence of all other reflexes. (6) In earliest infancy, even in infants prematurely born, extensive reflex movements of the feet and toes are present. (7) These reflex movements of infancy are gradually replaced, probably after two years, by the constant flexor reflex of adult life. (8) The cremasteric reflex is established in early infancy. This reflex becomes very active in early life, and is later replaced by, or modified to, the normal adult reflex. (9) The knee jerk is very active in infancy. Some of these are well established, while others require further verification. [T. M. T.]

July, 1902. (Vol. 29, No. 7.)

1. Presidential Address. JOSEPH COLLINS.
2. Contribution to the Study of the Myospasms; Myokymia, Myoclonus Multiplex, Myotonia Acquisita, Intention Spasm. G. L. WALTON.
3. Unusual Choreiform Alterations in the Width of the Palpebral Fissure of Both Eyes, Occasioned by Spasm of the Levator Palpebræ Muscles. WILLIAM CAMPBELL POSEY.
4. Involuntary Movements in a Case of Ataxia. JOHN H. W. RHEIN.

2.—Walton suggests the following in his article on the study of the myospasms: (1) The term *myoclonia*, as a collective designation for the unrelated disorders, should be discontinued. (2) The term *myokymia* should be limited to cases showing, without hereditary or congenital history, widespread muscular quivering, without atrophy or other indication of progressive degeneration of the nervous system, without constitutional symptoms and without sign of present infection or other acute diseases. (3) The term *myoclonus fibrillaris complex* should not be applied to such cases, since it suggests a relationship between myokymia and the paramyoclonus multiplex of Friedreich, with which it has nothing in common. (4) *Myoclonus multiplex* should be used to designate bilateral clonic spasms involving whole muscles or groups of muscles, generally those attached partly or entirely to the trunk. (5) The term *myotonia acquisita* should be limited to nonhereditary and noncongenital cases in which otherwise healthy individuals pre-

sent the typical motor disorder or the typical reactions of Thomsen's disease. (6) The tendency to spasm on attempted voluntary movement, unless accompanied by the typical motor disorder, or the typical reactions of Thomsen's disease, should be classed as intention spasm. (7) The term *myospasm*, clonic or tonic, may be used instead of *myoclonia* and *myotonia*, when it is desirable to include under one head the various forms of involuntary muscular contraction without known organic basis. [T. M. T.]

4.—Rhein divides the involuntary movements of tabes into: (1) The associated movements which may exist also in combined system disease of the spinal cord, cerebral hemiplegia, spastic spinal paralysis and cases of unilateral lesion of the spinal cord. (2) Sudden twitching of the trunk or extremities which may occur with or without pain and are more frequent at night. (3) Twitchings in isolated muscles or parts of a muscle. (4) Fibrillary twitchings. (5) Rhythmical tremor resembling that of paralysis agitans. (6) Passive movements, which Hirschberg describes as being those movements of the legs or thighs which occur when a patient who is lying down attempts to sit up in bed without the assistance of his hands; or when he coughs. (7) Involuntary movements previously described as athetoid movements. [T. M. T.]

THE GLASGOW MEDICAL JOURNAL.

June, 1902. (Vol. LVII, No. 6.)

1. Salol in the Treatment of Smallpox. R. S. THOMSON and ANDREW LOVE.
2. Cesarean Section; With Notes of a Series of Nine Successful Cases. J. M. MUNRO KERR.
3. Ruptured Perineum; the Mechanism of Its Causation; Its Prevention and Treatment. S. L. GRAIGIE MONDY.

1.—Thomson and Love's experience with salol in the treatment of smallpox has not been very satisfactory. Out of 7 unvaccinated patients, 3 died, the usual mortality among unvaccinated cases; of 69 vaccinated there were 10 deaths, giving a mortality of 14.4%, or about 50% higher than that seen of all vaccinated persons admitted to the smallpox hospitals in Glasgow. Not only was the case-mortality uninfluenced by the treatment, but the severity of the attack likewise seemed to be unaffected. The course followed by the eruption as well as the complications and sequelæ were precisely those with which all are familiar. The dose of salol was 60 grains daily, evenly distributed. [T. M. T.]

2.—Kerr gives the advantages of the "fundal incision" in Cesarean section as follows: (1) The abdominal wound is much higher and consequently the chance of a subsequent ventral hernia is less; (2) there is less bleeding; (3) the placenta is less frequently cut down upon; (4) the child can be more easily extracted; (5) the lower uterine segment is not injured and the wound can be more satisfactorily stitched. [T. M. T.]

4.—Mondy says that the extent of rupture of the perineum depends on: (1) The size of the fetal head as compared with the vaginal canal and vulval orifice; (2) the elasticity of the vaginal and perineal tissues; (3) the rapidity with which the head stretches the maternal parts; (4) the presence of an anteverted coccyx; (5) the amount of support given to the perineum by the accoucheur. [T. M. T.]

Myelocythemia in Two Cases of the Plague. This rare condition is described in 2 cases of bubonic plague which occurred in Naples. In one, a girl of 11, there was leukopenia; in the other, an adult, leukocytes, large numbers of isonophilic myelocytes were observed with a few esinophylic leukocytes. During convalescence very few myelocytes could be found. As this condition is rare in normal individuals or in those suffering from other diseases, Andrea Zinno calls attention to this peculiarity as a possible diagnostic sign of the plague, discoverable by blood-examination. (*Centralblatt für allgemeine Pathologie*, June 20, 1902.) [M. O.]

Society Reports.

CANADIAN MEDICAL ASSOCIATION.

THIRTY-FIFTH ANNUAL MEETING, MONTREAL, SEPTEMBER 16-18.

At the general session of the first day a resolution of regret upon the death of Professor Virchow, at the same time one of appreciation for the great work of this eminent pathologist, was proposed by Professor Adami, seconded by Dr. Gardner, and passed unanimously.

Medical Section.

Dr. A. McPhedran, Toronto, president. Tuesday morning, September 16.

Dr. H. A. Lafleur, Montreal, presented a middle-aged man with **splenic anemia**. There was a movable mass midway between the ribs and the crest of the ilium on the left side. The first blood count showed 75% hemoglobin, red corpuscles 5,000,000; white corpuscles 64,000. A later count showed 4,000,000 and 5,800 respectively. Dr. Osler referred to the difficulty in diagnosing this case, as it was one of the cases in which the diagnosis was more surgical than clinical.

Dr. J. H. Elliott, of Gravenhurst, read a paper on some further results in the **treatment of tuberculosis**, covering some 400 cases treated during the past 3 years. Almost all patients discharged apparently cured remained perfectly well; many of those with disease arrested recovered at home by following the rules of life learned at the sanatorium, renewed activity of the disease, when occurring, having been due to unfavorable surroundings or the necessity of again taking up unsuitable work. Each patient who returns home is a teacher of the value and importance of hygienic life. Experience is demonstrating the immense amount of good which results from a properly conducted sanatorium. Dr. Osler congratulated Dr. Elliott on the promising results which he has obtained. Two important points should be kept well in mind: Early diagnosis, and getting the patient under proper professional control as soon as possible. Dr. John Ferguson, Toronto, spoke of the positive advances that have been made in curing pulmonary tuberculosis. Dr. McPhedran emphasized training patients to care for themselves at home. He believes, too, that the neighborhood about sanatoria are areas where tuberculosis is always diminishing.

Dr. John Hunter, Toronto, read a paper on **pleurisy associated with tuberculosis**. He referred to the manner in which bacilli reached the visceral and parietal pleuræ through the subpleural, bronchial or tracheal lymphatic glands, from the cervical mediastinal and peritoneal lymphatics, and from the tonsils. In making a diagnosis of pleurisy, a vigilant search should be made for possible tubercular origin. With proper treatment, the progress is much more favorable than in pulmonary tuberculosis. At least two-thirds of the cases of tubercular pleurisy are curable. The rapidity with which the effusion develops is especially characteristic of tubercular cases. During convalescence, deep breathing should be practised assiduously, and inflation with rubber bags is a valuable exercise. Change to a suitable climate should be insisted upon if progress toward recovery be retarded.

Dr. A. E. Orr, Montreal, discussed **bloodpressure in diseased conditions**. Gärtner's tonometer was shown and demonstrated. The normal pressure in 400 patients was found to be 110 to 120. Seventy cases of typhoid fever were recorded in different stages, showing an average bloodpressure of 104.5 mm. It was highest, but still subnormal, in the first week. Only one death occurred, when pressure was 105, on the tenth day, and 110 on the twenty-first day. Three hemorrhages followed and on the twenty-fourth day a fatal hemorrhage occurred. Nineteen cases of chronic nephritis were recorded. Of this group the highest bloodpressure was 260, the average being 208.5.

Only 3 out of 7 cases of acute nephritis showed high pressure. Of arteriosclerosis 27 cases were recorded; highest 110, 16 being 150 and over; 4 from 130 to 145; 3 from 110 to 125; 4 subnormal. Valvular diseases of heart, 48 cases, including 11 cases of mitral regurgitation followed. In mitral stenosis 6 of 8 cases recorded were normal. Of 14 cases of mitral stenosis with mitral regurgitation, 11 had practically normal tension. A man, aged 60, with myocarditis has a pressure of 80; 2 patients with hypertrophy and dilatation of the heart had 120 and 110 respectively. There were 18 cases with acute lobar pneumonia, with an average of 92.7. Neurasthenia, 18, 13 having normal pressure; 3 from 135 to 140; one of 160. In malignant disease there was no high pressure. Six cases of anemia were all normal, as were 2 cases of Addison's disease, and a case of purpura hemorrhagica. A prolonged case of puerperal septicemia ending in recovery, with an extremely low bloodcount, 930,000, had a pressure above normal. One gall-bladder patient, with suppuration, had a bloodpressure of only 50, 10 days before death. In many cases of different diseases the bloodpressure was found normal. Dr. Osler considered this the best article on the subject yet written.

Dr. W. S. Morrow, Montreal, gave a practical demonstration on the blackboard and presented a patient, showing the technique of recording the venous pulse.

Surgical Section.

Dr. O. M. Jones, Victoria, president. Tuesday morning, September 16.

Dr. J. A. Hutchinson, Montreal, read a paper on **amputation of the upper extremity for sarcoma of the shoulder joint**, presenting a young woman with a history of previous injury to the shoulder, followed by the development of a growth on the humerus, accompanied by intense pain. The X-rays revealed a large growth invading the joint, and involving the scapula. She gave evidence of marked cardiac disease. Microscopical examination showed the growth to be a myeloid sarcoma.

Dr. R. G. Goldsmith, Belleville, reported a fatal case of **secondary hemorrhage 4 days after the removal of adenoids**, in a child operated upon for obstructive deafness. There was no history of hemophilia. Dr. H. D. Hamilton, Montreal, reported a case of **occlusion of the posterior naris** in a young man who had complained of constant discharge from the right naris, with complete obstruction, for about 12 months. On examination, a complete bony partition was found, which was perforated, and the opening further enlarged by graduated bougies.

Dr. G. Grimmer, Montreal, read a paper on the use of **subcutaneous injections of paraffin for correcting nasal deformities**. The paraffin is sterilized by subjecting it to a high temperature. It is then injected by a sterilized syringe. The inner canthi of the eyes should be protected from the spreading of the paraffin by firm pressure applied to the sides of the nose by an assistant's fingers. After injection, the parts are molded by the operator as required. Collodion is then to be applied to the needle puncture, with cold compresses, to control edema of the nose and eyelids. Dr. Grimmer exhibited 2 patients successfully treated in this manner.

Dr. G. A. Peters, Toronto, discussed the **telephonic properties of the inflamed abdomen**, a sign not hitherto described, due to paralysis of the bowel in peritonitis. In auscultating the abdomen with a view to ascertain whether there was paralysis of the bowel in appendicitis, typhoid perforation, traumatism or other conditions which may cause peritonitis, Dr. Peters has observed that when the gurgling sounds due to the passage of gas and liquid in the bowel are absent from paralysis, the heart sounds are invariably heard plainly over the whole abdomen. Dr. Peters explains the phenomena. The effect is further heightened by the rigid abdominal wall, which acts as a sounding board. The prognostic significance would seem to indicate an unfavorable termination in septic cases, in which the sign is well marked.

Dr. A. Primrose, Toronto, reported a case of **filariasis**,

cured by operation, in a man from the West Indies. Attacks of fever suggested the presence of filaria. On examination the embryos were found in large numbers at night, but disappeared from the blood during the day. A large portion of the scrotum was removed, a parent worm being discovered alive. This proved to be a female. Recovery followed. The parent worm was carefully studied by Dr. J. H. Elliott, who reported his investigations, with drawings.

TUESDAY AFTERNOON, SEPTEMBER 16.

General Session.

Dr. John Stewart, Halifax, delivered the address in surgery, on the contribution of pathology to surgery. Owing to the unavoidable absence of Dr. Stewart, this paper was read by Dr. Stirling, Montreal. The first advance came with Vesalius, "and day dawned with William Harvey, the Columbus of modern medicine," when he instituted the application of experimental methods to biological questions. Finally came John Hunter, "the father of scientific surgery," of whom Billroth says: "From the time of Hunter to the present, English surgery has had something of grandeur and style about it." But a great advance came from the study of plant life, and the researches of Schwann and Schleiden paved the way for the cellular pathology of Virchow, the basis of our present system of pathology. While the pathologist went on his way rejoicing, the surgeon still lingered with anxious mind and heavy heart, for the question of questions to him was still unanswered—the healing of wounds was the enigma of surgery. By the close of the eighteenth century, many scientific workers were satisfied the solution of this problem lay in the existence of pathogenic microbes, but it was reserved for Schönlein to prove in 1839 that tinea was due to a fungus. Later came Savaine and Chaveau, with their demonstration of the anthrax bacillus. And finally came Lister. "In the chronology of our craft, time is divided into before and after Lister."

TUESDAY EVENING, SEPTEMBER 16.

Dr. Francis J. Shepherd delivered the annual presidential address. He spoke of the Dominion Registration Bill, which has been so ably pushed through, in the face of many obstacles, by Dr. T. G. Roddick, and expressed the hope that no province would decline to act in accord with the almost universal desire to see the Bill finally made law. After a brief résumé of medical progress, he entered a protest against the freedom with which syphilitics are allowed to mingle with the community at large. After referring to the large sums of money that have been spent on the erection and endowment of laboratories for the encouragement of research work, he said that one danger of this is that it induces men to pursue original investigation who are utterly unfit for such work. They collect and publish a mass of useless and undigested material and draw inaccurate conclusions. While necessary, they must not supplant other work quite as important to a man who wishes to become a practising physician or surgeon. We must remember that the millennium will not be brought about by laboratories, nor will all scientific problems be solved by them. There is one laboratory which is not so much frequented now, the hospital wards. Students, while perhaps more scientific, have not the intimate personal knowledge of disease which continued observation at the bedside gives them, so that when started in some out-of-the-way place, without their scientific machinery, they are like fish out of water. It may soon be that they will not be able to diagnose phthisis without getting bacilli in the sputum etc. Students are not taught to observe so accurately the evident symptoms of disease, and are becoming mere mechanics who need an armamentarium which only a great hospital or university can possess, to make an accurate diagnosis of an ordinary disease; the higher and more intellectual means of drawing conclusions by inductive reasoning are almost neglected. The ordinary student should have a good working knowledge of laboratory methods,

and this should be obtained chiefly during his first 2 years, but refinement will be acquired at the expense of some more useful and practical information, for the average student can only hold so much knowledge; it is hopeless to attempt to put a quart measure into a pint pot. Dr. Shepherd thought that all physicians should acquire a good working knowledge of all the specialties, but an excess of time should not be devoted to any one. A year or 2 of hospital work, followed by some experience in general practice, should be managed by any one who wishes to become a broadminded specialist.

WEDNESDAY MORNING, SEPTEMBER 17.

Dr. McPhedran opened the discussion on diseases of the gall-bladder and bile-ducts, speaking upon medical diagnosis. As the bile-ducts are narrower at their entrance to the bowel than in other parts, and as they lie nearly horizontally, the outflow of bile is easily retarded or obstructed. The ducts are exposed to infection from the intestine. Of the cardinal symptoms, jaundice is the most common, and while pain varies, it is generally intense. The fever is usually due to toxic absorption. Most catarrhal conditions are infective, but chills and fever may occur without pus formation. The most common germ present is the colon bacillus. In gangrenous cases the symptoms are often ill defined. A most characteristic sign of gall-stones is recurrence of attacks. Dr. A. B. Blackader said he would confine himself principally to catarrhal forms of the disease. He considers the condition more commonly due to altered secretion of the bile-ducts, the altered mucus causing inspissation of the bile. Infection of bile he thought takes place in 2 ways, through the bile-ducts and through the portal circulation. In the treatment he considers that no drugs can stimulate the flow of bile to the same extent as the bile salts, though the flow is increased by exercise and deep breathing. Diet should be simple, and, as far as possible, should contain much fat. Such patients should drink plenty of pure water or mineral water. No constricting clothing should be worn. Dr. James Bell, Montreal, spoke of surgical diagnosis. He said it was common to find vague symptoms of gastro-intestinal indigestion early, present for a long time before an acute attack. He considered the colon bacillus and the typhoid bacillus common causes of infection. Dr. J. F. Ross, Toronto, expressed a lack of faith in the so-called medical treatment of gall-stones. He advocates drainage through Morrison's pouch. He laid great stress on the free use of gauze packing to prevent leakage into the peritoneal cavity. In gangrene and empyema of the gall-bladder he does not advise removal of the gall-bladder, but prefers opening, flushing and drainage. In many cases of cystic enlargement, however, he advised entire removal. He considers the mucous fistulæ which occasionally follow operation most troublesome, and said the evil should, as far as possible, be prevented by a small drainage tube. Dr. G. E. Armstrong, Montreal, recommends the employment of medicinal treatment first. He does not advise removal of the gall-bladder for stone in the cystic duct. He recommends lavage of the stomach before operating on gall-bladder cases, and calcium chloride before and after operation, to prevent possible hemorrhage. Dr. Dudley Allan, Cleveland, Ohio, spoke of the importance of early operation on the gall-bladder. He considers that an exploratory incision should generally be made early.

WEDNESDAY AFTERNOON, SEPTEMBER 17.

Medical Section.

Dr. R. D. Rudolf, Toronto, read a paper on the frequency, causation and clinical significance of Kernig's sign. Out of over 162 patients examined, Kernig's sign was present in 97, over 67%. It was always absent in perfectly healthy children. Dr. Rudolf considers it more convenient to extend the knee and then flex the hip as far as possible. In 59 cases an angle of less than 165° at the knee could be obtained, and in 10 cases the angle was 136° or less. These 59 cases were of all kinds, only one of them being meningitis. Drs. F. N. G. Starr and J. J. MacKenzie, Toronto, re-

ported a case of **multiple sarcoma** in a woman of 38. In April, 1901, a lump about the size of a pea was noticed slightly to the left of the middle line of the abdomen near the symphysis pubis. By March, 1902, she had thousands of tumors. Microscopical examination of those removed by excision revealed spindle-celled sarcoma. Arsenic had no influence on the condition. Thyroid extract produced slight diminution in the size of the tumors. Papers were read on **some points in cerebral localization** by Dr. James Stewart; on **the hospital for the insane**, by Dr. Stuart Paton, Baltimore, Md.; on **anesthetic leprosy**, by Dr. C. N. Valin, Montreal; and on **foreign bodies in the vermiform appendix** by Dr. James Bell, Montreal.

Surgical Section.

Dr. A. E. Garrow, Montreal, reported 3 cases of **congenital dislocation of the hip**. Heredity seems to play a part in the etiology. The chief obstacle for reduction is generally fibrous stricture of the lower part of the capsule. Dr. Garrow's experience has been mainly by the open method.

Dr. Ingersol Olmstead, Hamilton, discussed the **operative treatment of goiter**. As the medical treatment is unsatisfactory, operation is recommended in the following conditions: When attacks of dyspnea or inflammatory changes occur, or there is suspicion of malignant degeneration; for all enlarged thyroids having a tendency to grow toward the aperture of the thorax, even if movable; for goiters that have reached considerable development from the formation of single large colloid nodes; and when, with a moderate goiter, symptoms of Basedow's disease appear, accompanied with increased development. Kocher's operation is advised, under cocaine anesthesia. Twelve such cases were reported. The average stay in hospital was 7 days. The resulting scar was very slight and little or no pain was felt.

Dr. A. H. Fergusson, Chicago, Ill., read a paper on the **pathologic prostate and its removal through the perineum**. Some of the microscopical changes in the hypertrophied prostate are increased weight, greater size and the involvement of any part or the whole of the gland. The shape varies very much. The prostatic urethra is contracted and elongated; the vesical meatus is often rendered patulous and sometimes obliterated; the ejaculatory ducts are also often patulous, allowing regurgitation of the semen into the bladder, or they may be obstructive. Dr. Ferguson's method of removal is by the perineal route. He exhibited some special instruments devised and used by himself in this operation. The **surgical treatment of enlarged prostate** was discussed by Dr. G. E. Armstrong, who exhibited a specially constructed suprapubic vesical speculum, devised by himself, with a lateral opening which allows the prostate alone to come well into view. He reported 7 cases successfully operated upon.

WEDNESDAY EVENING, SEPTEMBER 17.

Dr. William Osler, Baltimore, delivered the address on medicine, upon **chauvinism in medicine**, which has appeared in full in the *Philadelphia Medical Journal*, of September 27, 1902, page 432.

THURSDAY MORNING, SEPTEMBER 18.

Dr. C. R. Dickson, Toronto, discussed the **X-ray as a therapeutic agent**. He has used it successfully in nevus, lupus vulgaris, tubercular joints, scleroderma, subacute articular rheumatism, neurasthenia, carcinoma of the stomach and rectum. Dr. G. P. Girwood, Montreal, read a paper on the **X-rays** and exhibited a number of photographs. Dr. A. R. Robinson, New York, discussed the **X-ray in cancer**, making the strong plea that the X-ray largely does away with the knife and leaves little scar. It is probable that all superficial cancers can be removed by the X-ray, if seen early. In a delicate locality, such as the eyelid, the rays should always be used, as paste or the knife will do more harm. When malignant growths have spread deeply, the X-ray may be considered our best treatment.

Papers were read on **sympathetic ophthalmia** by Dr. G. Herbert Burnham, Toronto, and on the **ocular manifestations of gonorrhea**, by Dr. W. G. M. Byers, Montreal. Dr. O. M. Jones read a paper on **excision of the cecum**, citing 4 cases. The symptoms were griping pains, loss of weight and irregular action of the bowels, together with a mass in the region of the cecum.

Dr. F. J. Shepherd reported 3 cases of **perforating typhoid ulcer successfully operated on**. He has always used the lateral incision, by which the site of perforation is more easily found. There is always suppuration, and usually a hernia as a result. General anesthesia is always used. Although perforation had occurred, there was in one case no leukocytosis. All are quite well with the exception of herniæ.

Dr. Lapthorn Smith, Montreal, presented a case of **total extirpation of the urinary bladder for cancer**, giving the results in 100 reported cases. Following removal of a fibroid by myomectomy cystitis occurred, which was treated by medicine, by injection, by permanent catheter, and then by the button-hole operation. Extraperitoneal removal of the bladder and the affected part of the ureter and pelvic glands was then performed. Death followed on the seventh day after operation, from exhaustion.

The following officers were elected for the ensuing year: President, Dr. W. H. Moorhouse, London, Ont.; vice-presidents, Drs. James Warburton, P. E. I., John Stewart, Halifax, W. C. Crockett, Frederickton, Mercier, Montreal, W. P. Caven, Toronto, McConnell, Morden, J. D. Leafferty, Calgary, and C. J. Fagan, Victoria; secretary, Dr. G. Elliott, Toronto, and treasurer, Dr. T. B. Small, Ottawa. The next meeting will be held at London, Ont.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

SEPTEMBER 16-18, 1902.

This association, founded in 1888, with a membership limited to 100, met at Washington, D. C., September 16 to 18, with Dr. E. S. Ricketts, of Cincinnati, president. Dr. W. W. Potter, of Buffalo, was secretary. In his address the president showed by statistics that the mortality percentage from all operations was too high. He made a plea for the true specialist. Dr. John B. Deaver, of Philadelphia, read a paper on **starvation**, an irrational treatment of appendicitis. He denounced both rest and starvation in the treatment of appendicitis, believing early operation the only sure treatment, causing least pain to the patient and the smallest percentage of deaths. Dr. Joseph Price, Philadelphia, read a paper on the surgical relations that the appendiceal region bears to pelvic suppuration. Unusual cases of appendicitis were discussed by Dr. Miles S. Porter, Fort Wayne, Ind. The diagnosis of appendicitis was the subject of a paper by Dr. W. W. Seymour, Troy, N. Y., who reported 4 cases in which the diagnosis was exceedingly difficult. Others who read papers were Drs. W. H. Myers, Fort Wayne, Ind.; W. P. Manton, Detroit, Mich.; C. C. Frederick, Buffalo, N. Y.; C. L. Bonsfield, Cincinnati, O.; H. D. Ingram, Buffalo, N. Y.; A. P. Clarke, Cambridge Mass.; R. T. Morris, N. Y.; W. H. Huniston, Cleveland, O.; F. F. Simpson, Pittsburg; T. J. Crofford, Memphis, Tenn.; W. B. Dorsett, St. Louis, Mo.; C. R. Dudley, St. Louis, Mo.; and W. B. Chase, New York. On the evening of September 16, Dr. L. S. Stone tendered the delegates a reception and banquet.

Among the papers read the second day were articles on occipitoposterior positions, by Dr. J. M. Duff, Pittsburg; retained placenta due to uterine fibroids, with cases, by Dr. M. A. Tate, Cincinnati; dystocia following ventrofixation of the uterus, by Dr. William H. Wenning, Cincinnati; abdominal section during pregnancy, by Dr. J. H. Carstens, Detroit; etiology and prophylaxis of traumatism of the female pelvic tract following labor, by Dr. E. J. Ill, Newark, N. J., and deciduoma malignum, with report of a case, by Dr. L. S. McMurtry, Louisville, Ky.

The following officers were elected for the ensuing year, at the evening session, September 17: President, Dr. L. H. Dunning, Indianapolis; vice-presidents, Dr. M. R. Owsenwasser, Cleveland, and Dr. E. H. Hayd, Buffalo; secretary, Dr. William Warren Potter, Buffalo; and treasurer, Dr. Xavier O. Wender, Pittsburg. The following new members of the executive council were selected: Drs. E. J. Ill, Newark; W. H. Huniston, Cleveland; Edward Ricketts, Cincinnati; Albert Vander Veer, Albany, and Lewis S. McMurtry, Louisville.

The annual banquet was held September 17, 43 members being present. On the last day of the meeting, papers were read by Dr. John Murphy, Chicago; Dr. William E. B. Davis, Birmingham; Dr. L. H. Dunning, Indianapolis; Dr. Henry Howitt, Guelph; Dr. M. Stamm, Fremont, Ohio; and Dr. James F. Baldwin, Columbus, Ohio. Dr. Murphy's paper was devoted to the surgical treatment of intestinal perforations, and many new points were brought out. Dr. Murphy cited a number of interesting operations that were successful. Chicago was decided upon as the next place for meeting.

JOURNAL DES PRATICIENS.

June 7, 1902. (16me. Année, No. 23.)

1. The Treatment of Chancroids and Chancres of the Genitalia. ALEXANDER RENAULT.
2. Sulphur Water in the Cure of Syphilis. DRESCH.

1.—In the treatment of chancroids or nonspecific chancre, Renault advises the application of iodoform or other antiseptic dusting powder, after washing the ulcer with a boric acid solution. To overcome the odor of iodoform, he uses pulverized coffee, carbolic acid or essence of peppermint. These applications are to be made twice a day. Nitrate of silver may be necessary if the ulcer heals too slowly. For syphilitic chancre he advises cleanliness, bathing it twice daily, then applying a boric acid dressing or calomel ointment. [M. O.]

2.—Dresch believes that mineral water containing sulphur aids the organism in resisting syphilis. He advises visiting a sulphur mineral spring for all syphilitic patients, after the first mercurial period. There all medication should be stopped, even potassium iodide. The sulphur will eliminate the mercury left in the system. The liver enlarges soon after the mineral water treatment is begun. When this is over, the patient is again put upon mercury, with rapid recovery from the syphilis. [M. O.]

June 14, 1902. (16me. Année, No. 24.)

1. Diet in Diabetes. G. LIROSSIER.
2. Diet in Certain Albuminurias. C. FIESSINGER.

1.—After a long exposition of the diet suitable for diabetic patients, Linossier concludes that no routine diet-list is advisable. Absolute interdiction of carbohydrates does more harm than good; for this may aggravate other troubles beside increasing glycosuria. While the general diminution in food is often exaggerated among diabetic patients, a restriction in sugar and fat is important in order to obtain a decrease in glycosuria. Therefore a diet of milk or potatoes has been successful. In deciding upon the diet in each case, attempts should be made to study the effects of the different foods upon the glycosuria and the general condition. [M. O.]

2.—Fiessinger describes 3 groups of albuminurias found with neurasthenia, the purely functional, the purely renal and those formerly renal which have become functional. He describes 2 cases which belong in the last group in patients who, having had acute nephritis, now have neurasthenia with albuminuria. This condition disappeared, not on a prolonged diet of milk, eggs, thin soups, vegetable, bread, butter and fruits, as had previously been ordered, but on wine, meat and fat bouillon. This introduced the reparatory element. Such a diet, however, should never be given to a patient with renal sclerosis, even though neurasthenia and albuminuria co-exist.

[M. O.]

Special Article.

ADDRESS OF WELCOME.

By Ex-Judge EDWARD HARVEY,
of Allentown, Pa.

Delivered before the Fifty-second Annual Meeting of the Medical Society of the State of Pennsylvania, at Allentown, Pa., September 16th., 1902.

Gentlemen of the Medical Society:—

It is, I can assure you, personally very gratifying to welcome you, the representative members of a learned profession, to our city and to our homes. Our resident physicians, who are deservedly esteemed by all of us, knew when they invited you to hold your sessions here, that a cordial greeting awaited your coming. You were not invited to assist in eradicating an epidemic or for consultation on the best method to check contagion. We claim for our city that it is the healthiest and cleanest of any in the State. You were not invited, and we do not need you, to minister to our afflictions. We wanted you as friends, scholars, humanitarians, and as such we cordially ask you to take bread and salt at our doors under the inspiration of a generous hospitality.

You have been formally received and welcomed by the Mayor of our city in a most fitting speech; you have been welcomed by your professional brethren palm to palm in the bonds of fraternal fellowship; just why a member of the legal profession was invited publicly to welcome you again I am unable to understand. If a clergyman had been honored with the invitation, it would have been manifestly more appropriate, for all of them are doctors now *gratia universitatis vel collegii*. Your professional services are engaged to treat by widely different methods the patient before death, while we are rarely required to act professionally until after the interment and it has been pretty definitely ascertained that there is something for distribution. But while there is so little in common between our respective professions, we are occasionally required to examine into your methods, to criticise your treatment and upon rare and regrettable occasions to use our persuasions to convince a jury that you are not the culpable cause of unfortunate results. There is, however, no antagonism. The principles of law are recognized as the most efficacious means known to preserve order and insure happiness. They apply, or should apply, equally and without discrimination to all the various conditions of society. These and some more thoughts in the same line have led me to conclude that I was invited to advise you, as an aggregation of clients—a combination, in the commercial language of the day—upon some matters personal to yourselves, and in which the State and its inhabitants have and always will have a profound interest. Certainly you do not vainly regard yourself as too considerable to be advised, and you are all of opinion with the clergyman in Sir Roger de Coverley, "that it was not quality, but innocence, which exempted men from reproof."

For my purpose to-night, and I must be brief, it is immaterial what the early history of your profession may have been or to what standard of efficiency it has attained. It is unimportant what your

position was with the Roman Patrician, where your predecessors were slaves, or in London, where they were barbers and druggists. As knowledge was generally diffused—as the experiments and logic of the philosopher gradually removed the clouds that so long obscured the vision of intelligence—as the terrible shackles of an oppressive superstition were broken—as able men were investigating and inquiring deductively and inductively into things nearest to us, a radical change was effected, not only in your profession but in the intelligence of the civilized world. The changes were wrought with no extraordinary means—they never are. Such changes occur, and will always occur, when a people rely on the knowledge of their ablest men, the subjects to which that knowledge refers and the extent of its diffusion among all classes of society. It took the world centuries to dissociate the profession of physics from the priesthood; it took it centuries to deny successfully that magic was an essential part of the formulary of the practice of medicine, and that mysteries and incantation were correct modes of treatment. When the world found out its errors, and able men were able to admit them, the spirit of inquiry, the spirit of healthy skepticism, brought to light new theories and new discoveries, all in the interest of progress and intelligence.

Your profession has made great advances along philosophical lines, and to-day it justly holds a prominence greater than in all recorded time.

There is, however, one matter about which I desire to address you with emphasis. It is that of your position as expert witnesses in trials at law or equity. Through learning, standing and experience you are, or should be, qualified to aid in the solution of judicial problems. No better or surer method of arriving at the truth in controversies between men than trial by jury has been devised. There are involved at times certain categories of fact that are not understood by laymen, and resort must be had to the opinions of scientists and artists to have them explained. These opinions are given under oath and in court by what are called experts. What do we understand by expert testimony? An expert is “a person of large experience in any particular department of art, business or science.” It implies, as Mr. Justice Redfield in his edition of Greenleaf on Evidence well says, “both superior knowledge and practical experience in the art or profession,” and no one can be considered an expert who does not thoroughly understand the science or art he is called to explain. Mr. Justice Doe says, “An expert must have made the subject upon which he gives his opinion a matter of particular study, practice or observation, and he must have particular special knowledge on the subject.”

By the Roman law *artis periti* were summoned by the *judex* to inform him as to physical laws and phenomena. As early as 1532 the Emperor Charles V, in a code framed at Ratisbon, enacted that the opinions of medical experts shall be taken in all cases in which death was supposed to have been occasioned by violence. The same rule was observed in France in 1606, and in England as early as 1553.

At the present time the rules have been enlarged and made more general, so that opinions are now received on all subjects that require this form of aid to enable the courts to reach true and correct results.

You will observe that the law admits expert testimony when the witness through professional training and experience is qualified to throw light on the mooted question. The value of such testimony varies with the ability, experience and information of the witness. If the witness has had no personal experience, and the opinion he presumes to give is the result of reading alone, his testimony is worth little or nothing. Lawyers and judges can read as well as he; they can, after reading, form a theory as well as he; and such testimony is worth less than nothing. Merely gathering theories or facts from books does not qualify a witness to be of any aid in our courts. You cannot build a house by accumulating materials. Knowledge how to use them and skill in using them are required. And this skill is the result of experience.

Very frequently physicians censure lawyers for the severity of their examinations. This is unjust censure. Lawyers never are severe when a witness is honestly and intelligently insistent and bases his opinions on scientific principles. When, however, the witness is inexact, doubtful or apparently prejudiced, he must expect a searching examination, for the law and justice demand it. He has no right to testify as a witness if he knows he is without the qualification of an expert. He obscures the question, trying by the use of such expressions, “it is possible,” “it may be so,” “it is likely.” If the hypotheses presented by the facts of the case are fairly stated to him, he should give an opinion on them; if they are not fully and fairly stated, he should require them to be made so before he ventures his opinion.

Then, again, the tendency of expert testimony to be conflicting weakens it. Professional witnesses are not examined upon mere abstract questions of science which have no relation to the facts in evidence before the court. Their opinions are to be given only on the facts in evidence—sometimes the whole evidence and sometimes important parts of it. Each party to the action selects his own experts. Frequently they assist the attorneys in preparing phases of the evidence. As they are employed by one side only, and in some cases paid liberally, they are consciously or unconsciously influenced so as to see only what the side needs that retained them. As a consequence we sometimes find witnesses of equal merit and distinction testifying to opinions apparently opposite. An eminent law writer in an English law magazine, commenting on this state, says with great force: “Instead of appearing as assistants to the court in determining upon what is most for the public good, the wildest theories are enunciated; science and health are insulted in the interests of costs and personal notoriety; dust is profusely thrown in the eyes which ask for light, and the unavoidable inexperience of the court is compelled to a decision, which those who really cause it know to be wrong, or at least do not think to be right. On some special branches of inquiry

the same two eminent experts are as well known as those of two rival village politicians, confront each other daily."

Surely this state of affairs is deplorable. The professions of medicine and surgery must be able to know that it is not difficult to distinguish between wounds inflicted in life or after death. I recall a case in which such eminent men as Dr. Agnew, Dr. Forbes and Dr. Ashhurst testified positively that certain abdominal wounds on the body of a corpse were inflicted after death. In opposition to this conclusive testimony of eminent scientists, three country doctors testified that in their opinion they were inflicted in life. Learning, experience, skill and standing counted for nothing in the scale of justice and were ignored by the jury in rendering their verdict.

If the evidence raises questions of great doubt, learned men may yet disagree. Lord Tenterden once said that the line between sanity and insanity is as indistinguishable as the line of demarcation between daylight and dawn. Upon the question of insanity we expect to find disagreements in the opinions of professional witnesses. There are no fixed and invariable rules for gauging the sanity of men. What in one temperament would indicate a disordered intellect, in another might be compatible with perfect sanity. But upon the ordinary questions which arise in our courts there is no excuse for radically divergent opinions, and the layman explains them as the consequence of prejudice, bias or favoritism. "Who shall decide when doctors disagree?"

Another criticism must be made. You persistently use in your testimony technical language that cannot be understood by the average layman. If your opinions are to receive their deserved weight and are to be used in ascertaining truth in the administration of justice, the jurors and judges must know what they are. The English language is rich in words. It is comprehensive and elastic. It boasts of samples of literature that are unequalled in the languages of the world. Its poetry, its philosophy, its theology and its histories and fiction stand prominently out as masterpieces of style and substance. The law in our country and in England requires that all proceedings in courts shall be in the English language. Yet you come in as witnesses and use words derived from the classical but dead languages of almost forgotten centuries. And I have always discovered that those professional witnesses who have the least classical training and the meagerest educational advantages use the most technical terms. This should be avoided, and I am glad to say it is not practised by eminent scientists who understand and appreciate the relation they bear, when witnesses, to the proper administration of justice. I cannot help quoting a paragraph from a delightful little book written by Anatole France, called *The Crime of Sylvestra Bennard*: "These ills, which are the bane of man, have names which are the bane of the philologist. They are hybrid names, half Greek, half Latin, ending in *itis*, indicating the inflammatory state, and in *algia*, expressing pain. The doctor was there with a number of adjectives

ending in *ic*, which serve to characterize their detestable qualities—in short, a good half of the complete copy of the medical dictionary contained in the too authentic box of Pandora."

I have spoken to you with freedom, but set down naught in malice. By emphasizing critically what I regard as evils deserving correction, I do not wish to be understood as minimizing the high position the civilized world has accorded you. Your profession has taken the first rank in practical science and is easily holding the lead. Bring yourself in closer touch with mankind for whom your minister, and add to your usefulness the ability to aid, as professional witnesses, the courts of justice, so that we can lean on you as a supporting staff and not, as is now too frequently the case, as a broken reed.

Emerson has somewhere said: "The destiny of organized nature is amelioration, and who can tell its limits." This universal law is nowhere more manifest than in the progress of the world in social, political and scientific achievements. The world advances slowly. It takes centuries to work permanent changes. The equality of man was not established until the divine right of kings was overthrown. Liberty of conscience was not secured until the battlements of superstition were attacked. It has been said that it requires ages before the intellectual advancement of a people can be expressed in a maxim. The operations of this law are peculiarly observable in the advance made in the art and science of medicine and surgery. When the civilized world was engaged in human slaughter, no thought was given to prolonging life and administering to the health and happiness of mankind. Now, since the civilization of the present is based on the brotherhood of man, everywhere is seen the helping hand. Human sympathy is extended to all forms of afflictions. Surgery has called to its aid anesthetics, listerism has been discovered to protect the healing wound, adrenalin to stop the unnecessary loss of blood, and the X-rays to photograph the inner organs, tissues and muscles, so that the diagnosis may be a demonstration. All of the great discoveries are used in charity to ameliorate mankind; "and the thoughts of men are widened with the process of the suns." Who can tell where destiny may yet lead? Your great discoveries, experiments and demonstrations entitle you to a high place in the boundless benevolence of mankind, and I can close with no fitter words than those of Voltaire:

"Men who are occupied in the restoration of health to other men, by the joint exertion of skill and humanity, are above all the great of the earth."

A New Cause of Acute Lead Poisoning.—Rénon and Géraudel report the case-history of a man of 54, whose occupation for 3 months had been cleaning the moulds in which artificial ice is made. A steel scraper is used in this work, upon the outside of the moulds. He had typical attacks of lead colic and a plain blue line on the gums. Eight other men engaged in this work also developed lead colic. Examination of the powder scraped off showed it to be a mixture of iron and lead. The patient recovered and is seeking some other work now. (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 17, 1902.)

[M. O.]

Original Articles.

ADDRESS IN OBSTETRICS.

Delivered at the Annual Meeting of the Medical Society of the State of Pennsylvania, held at Allentown, September 16, 17, 18, 1902.

By J. M. BALDY, M. D.,

of Philadelphia.

All branches of medicine are at all times advancing, slowly in some instances, with wide and rapid strides in others. A few short years since obstetrics and gynecology took upon themselves an activity which surprised even their votaries, and the advances made in these branches of the medical art have been such as to make an epoch, a very important one, in our profession. Old diseases have taken on a new aspect, and new ailments have been discovered; to such a degree has this gone that a lasting place has been given to this branch of medicine as one of its most important specialties. Not alone have obstetrics and gynecology made for themselves a permanent place high in the scale of importance, but they have been the means of adding to general surgery the greatest laurel of the century—abdominal surgery. Without the aid of this specialty general surgery and general surgeons had still been floundering in the mazes of uncertainty and ignorance in that cavity of prime importance to mankind, the abdominal cavity. Without our aid the world would still be indefinitely behind the present knowledge of surgery.

With the ordinary lack of foresight of the pupil, after acquiring a certain degree of knowledge, general surgery and general surgeons have presumed that, having fulfilled its mission, our specialty has lost its usefulness, and we hear much these days of "the passing of gynecology." Most, if not all, things in this life fulfil a certain function and then die, and it will readily be admitted that this specialty is no exception to the rule. The great point of difference of opinion rests on the idea of when the end is reached—and this difference of opinion depends largely on the wishes and selfish interests of the observer, a certain degree of inability to see beyond one's nose and an earnest consideration of facts—facts only too plain to one wishing to see, but obscured possibly to the superficial observer and thinker. "There are none so blind as those who will not see."

Is it true that obstetrics and gynecology have reached the limits of their usefulness, and have developed all that is necessary or possible, and that general surgery is capable, more than capable, of carrying to a finish the work done in the past by this specialty? What are the facts which can be seen by any acute observer in his travels? Does the general surgeon (as a whole) carry into his practice all those niceties and refinements of, for instance, antiseptic surgery, which are essential if the most perfect results are to be obtained? Would any obstetrician, after visiting the operating rooms of one hundred general surgeons, go home and be willing to allow but a small proportion of the hundred to open the abdomen of any female of their own family, or deliver such an one of a child?

Would any gynecologist, after seeing the same series of one hundred surgeons examine a woman, pass judgment on their peculiar ailments, see healthy organs removed with, in some cases, surgical methods, in others the most slovenly, be ready to hand the future advance and teaching of this branch of medicine over to their tender mercies? Are there many obstetricians or gynecologists who in their own minds are not fully aware that the general surgeons, excepting a few, have apparently not even grasped some of the most important of the truths of obstetrical and gynecological surgery—at least, if one is to judge by their practice and teachings? And is it to this immature pupil that the future teaching and advance of this most vital branch of medicine is to be left? Heaven forbid! General surgery has not yet learned all that obstetrics and gynecology have developed, some of which is the A B C of the alphabet to the obstetrician and gynecologist. Furthermore, it shows itself unfit to be trusted with the future of this specialty when her votaries claim all has been learned in these branches and that consequently they revert to the parent branch, general surgery.

There are two equally important branches to every science: Its development and its teaching. One would imagine that, when certain facts were known and fully demonstrated, it would be but a short while until every member of the profession had acquired this knowledge and had reduced its application to perfection. Is such the truth? Well, we know it is not! One of the great disgraces of our profession is that, in spite of full knowledge of the importance of antiseptic work in the prevention of puerperal diseases, the great prevalence of this class of troubles, so disastrous to the health and happiness of our women, continues. How long known, how persistently taught, and how little appreciated and practised by the great bulk of the profession! If there were not one single other use for the obstetrician or gynecologist in the future, this alone would be more than sufficient for a generation to come. The gynecologist has been busy for the past decade impressing on the profession the vast importance of conservative surgery of the female genitalia and the close and deceptive association of the nervous system with woman's peculiar complaints, with what success? A visit to many clinic rooms will almost convince one that such things had as yet hardly been conceived. Almost any one can learn to do the mechanical part of surgery fairly well, but it is not this alone which marks the master; more important, if possible, is that judgment which tells what to do and where to stop. Is there any one who has studied the average general surgeon in this part of this class of our work who is ready to leave the future of obstetrics and gynecology in his hands?

So far I have touched only a few of those great principles which this specialty has developed, and which are the A B C of its work. What of the future development? Is it true, as claimed, that our work is finished? That there is nothing left for us to complete before our hands leave the plow? What of the dozen or more unfinished prob-

ems? What, for instance, of cancer of the uterus? A mere superficial glance over the literature of the past two years will show what a widespread interest has been developed in this affliction, and what a mighty effort is being made to improve our knowledge and to widen the field of those who understand what we really do know of worth on this subject at present. We, gynecologists and obstetricians, had until recently rested complacently upon our knowledge of this disease and were apparently content in our belief that we had a cure fairly well in hand, and that, what was better still, the efficiency of this treatment was rapidly increasing. We were talking and reading of twenty and sixty per cent. of cures, believing it ourselves and, what was worse, leading the general profession, who looked up to us for guidance in such matters, to believe that we really believed in our own statements. A paper I presented at the meeting of the American Medical Association at St. Paul, Minn., in June, 1901, holding up the true facts mercilessly to a critical review, was such a shock as to call forth instantly a host of protests and denials. And yet a rereading of that paper, a fuller appreciation of the facts presented and of the motive of their presentment, a sober second thought, has so impressed workers in this line that one can hardly to-day pick up a medical journal without finding an article or two on this subject! And so it has been since the publication of my paper. A careful review of all this great mass of literature, accumulated in a little over one short year, bears out most fully every statement made by me at that time. It has at the same time brought out other facts over which it will well repay us to glance, and to formulate the sum of our present knowledge. Do we really know what cancer is? Do we know what causes it? If we were possessed of the final knowledge in this respect, half the battle or more would be won. It is comparatively easy to fight an open enemy.

After a careful sifting of our knowledge of this disease I think it reasonably fair to state that we do not know what cancer is; we do not know what causes cancer; we do not know a cure for cancer.

The theory of the past most universally accepted has been the cellular theory of Cohnheim. As a theory for the formation of tumors in general, the cellular theory answers fairly well, but so many exceptions have been demonstrated of late years, and so much remains unexplained as regards malignant growths in particular, that it is impossible to remain satisfied with this theory. For the last few years the parasitic theory has in great part displaced that of the embryonic cellular growth. In the New York State Pathological Laboratory, Gaylord claims to have discovered the parasite of cancer, an organism similar to the plasmodium of malaria, and has promised us definite proof of his assertion. A careful review of the data already given the profession is most unsatisfying, and Gaylord's observation and conclusion have been demonstrated to be anything but final. In support of the Gaylord theory, Park says that in and between cells of cancer-growth are seen peculiar forms or particles, such as are not noticed in healthy tissue,

or in the infectious granulomata, or in the truly benign tumors, and that these must be either cell degenerations or parasites. Why must they be? And even if so, why not cell degenerations and not parasites? He further states that exactly similar appearances have been produced in large numbers after inoculation with cancer material, but no one has been able to produce such degeneration under these circumstances. Granting this to be true, what does it prove as to parasites? Inoculations show some most erratic results. Leopold implanted in a rat cancer tissue of an ovary, with the result that a sarcoma was developed. Lack reports a case in which he produced cancer by setting free epithelial cells from the ovary into the peritoneal cavity of a rabbit. Senn incised his own arm and set in the wound a piece of cancer tissue from the lip of a patient upon whom he had just operated, and within three weeks all trace of it had disappeared and he had no further trouble. The Cancer Commission of the Harvard Medical School has arrived at diametrically opposite conclusions to those of the New York State Pathological Laboratory, and Cullen points out that Gaylord has failed to produce a pure culture of a parasite and, by inoculation with this pure culture, to reproduce cancer.

It is clear, then, that we do not know what cancer is, or what causes it, and as the question of its infectiousness, outside of its clinical aspect, rests on the cause, we are as much in the dark as to this as to the other. It is true the infectiousness of cancer is strongly urged by some of the profession, and individual instances are cited of what appear to be cases of this character. The fact that cancer returns in the cicatrix of the wound, left after removal of an afflicted organ, and metastases are regarded as the principal evidence of infectiousness. Park's statement that, because metastasis is regarded as the principal evidence of infectiousness in all infectious diseases, therefore the similar manifestation in cancer is a like evidence of its infectiousness, "if it means anything in the one case, it has exactly the same meaning in the other." In the first place, it is by no means absolutely proven in the one case, and even if it were, it need not necessarily mean the same in all other cases. If it were true that contiguous sound tissue were infected by the knife in the removal of a cancerous organ, cancer would be proven to be terribly infectious, as the vast majority of cases of cancer of the uterus which return recur in the cicatrix. And yet no one pretends that the infectiousness is more than a low-grade one. Senn asks what surgeon ever contracted cancer from operating or handling the disease? Bossi has communicated with thirty-eight leading gynecologists in Europe and has discovered but one case of a man cohabiting with a woman suffering from cancer of the uterus who had contracted cancer of the penis. I know of no case on record in America of cancer of the penis occurring simultaneously with cancer of the cervix in the wife.

The increase of cancer is both affirmed and denied, but is, I believe, pretty generally accepted as a fact, and yet the evidence is against this idea. Newsholme points out that the increase is only apparent. He divides the cases into two groups, the

accessible and the *inaccessible*, and then shows that the increase occurs almost entirely in the inaccessible group. The causes for this are at once apparent; better knowledge of the disease, more careful search for the inaccessible cases (such as cancer of the internal organs) and better diagnosis. Smith finds that an analysis of the cases in the District of Columbia for twenty years fully bears out this explanation. If this be true, as it probably is, then the so-called "cancer belts" may be explainable on the same grounds: Better local education of the profession, better diagnosis, more trustworthy records.

The antagonism of tuberculosis and cancer and arsenic as a cause of cancer, have been presented pro and con, but neither of them seems probable. Cancer and tuberculosis are known to occur simultaneously in the individual, and while Jonathan Hutchinson continues to labor to prove arsenic as a causal factor, both Gautier and Czerny prove that this drug is almost constantly present in the human tissue.

When I state that "we do not know a cure for cancer" I do not wish to be understood as meaning that no case of cancer can be cured, but I do mean to assert that we know of no way and of no method of treatment, which, applied to all cases of cancer, will effect more than a small proportion of cures, and even this with absolutely any degree of certainty. In my paper presented to the American Medical Association at St. Paul, June, 1901, I stated, and substantiated by careful analysis, that but five per cent. or less of all cases of cancer of the cervix uteri, presenting themselves for treatment, were cured, and that some of these cures were doubtful. For this analysis I used the statistics of the Johns Hopkins Hospital, the most reliable and complete as yet presented in this country. Of one hundred and forty-one cases presenting themselves for treatment but fifteen remained alive after six years, some of the patients having died as late as five years after operation. The time was when Volkmann laid down the dictum that after removal, after two years of freedom from recurrence or metastases, a permanent cure was usual, and that after three years, without exception, such cure was certain to be the case. This became the universal belief, and is to-day the cause of the claim of from twenty to fifty per cent. of cures. We now know this to be untrue. Labhardt collected one hundred and twelve cases of late recurrence, i. e., after the third year. He found that the majority of these occurred in the fourth to the sixth year after the operation, and he even cites cases of recurrence in the fourteenth to the twentieth year. He substantiates the fact that these were cases of recurrence by showing that they all developed as local growths in the scar from the operation. Not only is there an indefinite period in which recurrence may occur, as stated by Duplay, but Labhardt states that there was a late period of metastasis as well in his collected cases. Certainly, in view of all these facts, we cannot consider a patient cured under six years; in which case Johns Hopkins Hospital has not with certainty cured a single case of cancer of the cervix

since it has been founded. Freund, at the Ninth German Congress of Gynecology, was able to report only two cases of cancer of the uterus permanently cured by operation in an experience extending over twenty-three years. My own experience of eighteen years fully bears out these results. My estimate of five per cent. of cures in cases of cancer of the cervix up to the present time is, I believe, a most conservative estimate, and since making that estimate, more than a year ago, I have neither seen nor heard of anything which makes me alter my opinion.

Cancer is beyond question the most terrible disease mankind has to contend with, and our present prospects are far from bright. Man has time and again overcome the seemingly impossible, and has striven the harder to do so as he has realized the difficulty of the task. Strenuous and unintermittent efforts are being made by two different workers to overthrow this particular Goliath, the pathologist and the clinician. It is true, as has been pointed out, that the pathologists have so far failed us, but, far from agreeing with Sinclair that they have exhausted their resources, I look to them and the future as our one great hope. If they can succeed in telling us what cancer is and what causes it, then the problem for the clinician will be greatly simplified. Failing in this, it seems to me our next great hope rests in empirically finding a remedy. Surgery, the only and best-known cure, at present holds a third place in my estimation, and, while we are waiting for the fruition of the other efforts, it is our sheet-anchor. In cancer of the superficial tissues, Röntgen rays give promise of some usefulness; how much, is doubtful and only the future can determine. As yet the results are too meager and uncertain and, as far as it pertains to uterine cancer, absolutely nothing has as yet been demonstrated.

Surgery itself, i. e., technique, has advanced as far as it is capable, and the operator stands to-day with his hands tied to a possible paltry five per cent. of cures, unless the general practitioner comes to his rescue. And therein rests the duty of the hour.

First, the unintermittent effort by the specialist to teach the general profession, on all occasions, at all times and in all places, without ceasing, the one sure thing about this miserable disease, viz., that the hope of better results by our present methods rests in an early diagnosis and in that alone.

Secondly, the determination of the general practitioner to spare no effort to familiarize himself with the earliest of the indications of the development of the disease, to be ever and always on the lookout for it in his female patients, suspecting early, investigating every suspicion and asking counsel when in the least doubt.

Could we reach this desirable condition of practice and mutual co-operation, no one could prophesy what a different aspect cancer treatment would assume in a very few years. To continue as we are doing, to allow the most significant symptom to continue without examining our patients, to delay operations for a year, six months, three months, a month, or even a week, is folly and inexcusable.

This is no time and place to dwell on symptomatology, but let me say that pain and swelling discharges and cachexia and free hemorrhages mean the death of most of these patients. If we wait so long for our diagnosis, it were almost as well not to have made it at all—it is usually too late. The smallest show of blood at any unusual time is significant and calls for careful investigation; even one show, one drop of blood from the vagina, after the menopause has been fully established, usually means cancer. At all times, before an indication of bleeding is seen, there is a leukorrhea established, or one already in existence becomes altered, however slight, and with an acute observer this will not infrequently lead to an examination. An examination once made, a point of induration, a too soft point, a point which bleeds to the touch, an ulcer, will demand a further careful study of the symptoms, of the point affected, even to the taking of a clipping and a microscopical examination. Nothing suspicious being found in the cervix, a curettage and a careful overhauling of the scrapings must follow. And after this, if cancer is not demonstrated, that patient should be kept under the most rigid observation and repeated examinations should be made until the possibility of the disease can be safely eliminated. Knowslev Thornton, as early as 1895, stated that "an early diagnosis of malignant disease of the uterus can only be made by neglecting no menstrual departure from the normal, however trivial it may be at first appearance, by encouraging the patient to describe accurately her symptoms and, above all, by insisting in the most determined manner upon a local examination." I am sorry to say that the medical profession, as a whole, is culpably lacking in following this advice. Johns Hopkins Hospital rejects about sixty per cent. of cases of cancer of the uterus applying to it, as beyond even a chance of recovery by operation. Waldstein states that, of the women who come to the clinic at Vienna suffering from uterine cancer, but fourteen and seven-tenths per cent. are operable cases, and he estimates that of every hundred who come only four are cured. I am unable to state accurately what percentage of cases sent to me for treatment is operable, but a close estimation would bring it well within twenty per cent.; and the worst feature of the matter is the fact that a considerable percentage of them is sent by physicians who have not been aware that the disease was cancer, when the symptoms should have alarmed even a layman six months or a year earlier.

In the face of this deplorable condition, is there no further use for the obstetrician and gynecologist? Have we not sufficient here as teachers as well as investigators to keep us more than busy for a generation to come? I fear much, if our work was left to the tender mercies of general surgery, we should go on for some generations to come in our ignorance or, what is still worse, our indifference.

I cannot conclude better than to quote the final part of the recent scholarly address in obstetrics by Sinclair, the subject of which was cancer of the uterus: "Running through all I have said and implied in some apparent degressions, has been an effort to attract attention (as far as anything I may

say can do so) to the dignity and the effectiveness of exact scientific *clinical methods* of observation. To attain my object it seemed necessary to call specific attention to the futility of much of the labor of the past, undertaken in order to establish the etiology and pathology of cancer. All honest and enlightened human effort should be welcomed; I deprecate none." But, for improvement of present results, chiefly is my hope fixed on the education of the whole profession to the point of knowing what is known about the clinical history, symptoms and diagnosis of uterine cancer, and of their making early and efficient use of this knowledge.

A MODIFICATION OF THE BARKER METHOD FOR THE TREATMENT OF FRACTURES OF THE PATELLA, WITH ILLUSTRATIONS.*

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The subcutaneous method of suturing the fractured patella is to be preferred to any method in which the joint is freely opened, for the following reasons:

- (1) It is more easily and quickly performed.
- (2) The occurrence of superficial or even deep suppuration, ankylosis, sepsis and even amputation, as is sometimes the result of the open incision, is reduced to a minimum.
- (3) The recovery is generally more rapid and certain.

The operation which I will describe differs from the Barker method in only a few particulars: The incisions through the skin and ligamentum patellæ are the same, but in the Barker method a single silk or wire is used, while I use a double ligature.

In the Barker method the needle is first introduced through the ligamentum patellæ and passed upward beneath the fragments and through the insertion of the quadratus, and then through the incision in the skin above the patella. The needle is then threaded with a *single* thread or wire and then completely withdrawn and unthreaded, leaving the ligature in place. The needle is then passed through the primary opening upward in front of the fragments and out of the upper incision. It is then rethreaded

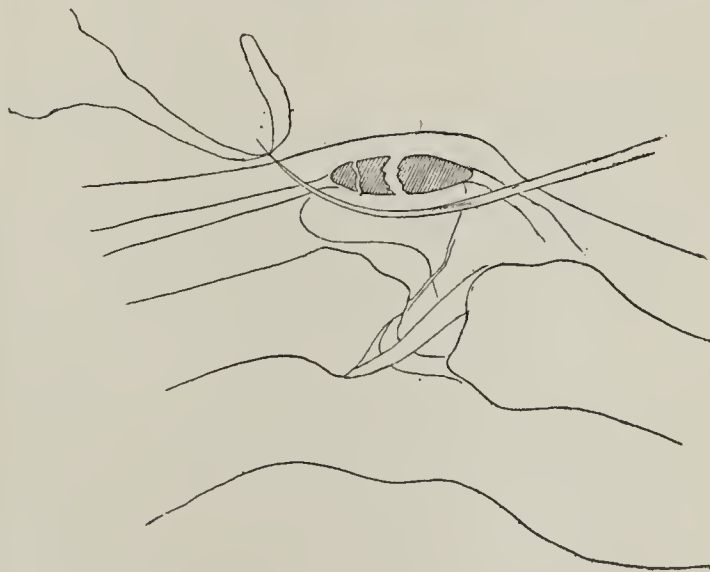


FIG. 1. Showing needle passed below fragments of patella and eye of needle threaded with double ligature.

*Read before the Monroe County Medical Society, at its annual meeting in Rochester, N. Y., May 28, 1902.

with the upper end of the ligature and withdrawn, so that the ends of the ligature will both present at the lower end of the incision, where they are drawn tight and tied, if silk, or twisted, if wire.

I use a double ligature, and in introducing the needle it can be introduced either from above downward under the patella, if it is desired that the knot be tied below, or from below upward, if the knot is to be tied above. In introducing the ligature I thread it *double* into the eye of the needle, after the



FIG. II. Showing needle with loop ready to pass above fragments of patella.

needle has appeared at the opposite incision from which it is introduced. Then, holding the two ends of the ligature outside of the skin, I withdraw the needle enough to bring it with the loop just be-

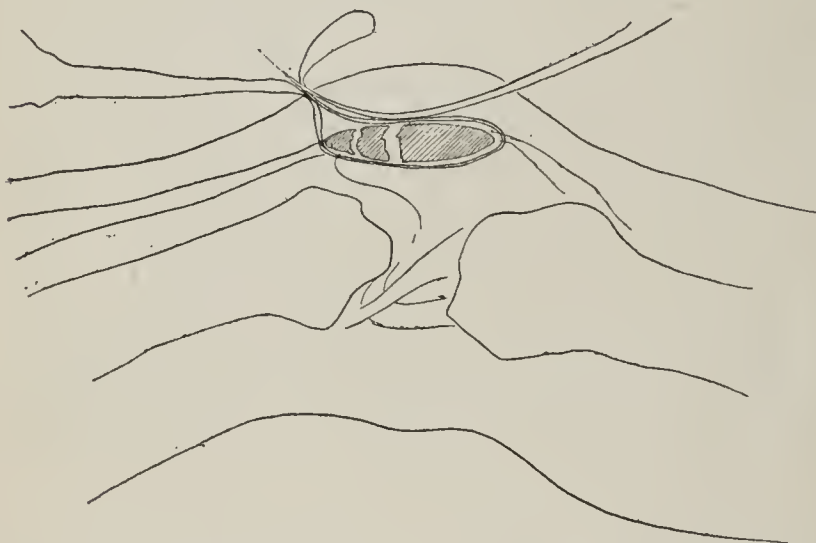


FIG. III. Showing needle with ligature passed above fragments of patella and out through first point of exit.

yond the opposite side of the fragments of the patella; then, *without withdrawing* it from the wound, I pass it above the fragments and bring it out through the incision at its first point of exit. The loop is then unthreaded from the eye of the needle and the needle withdrawn; in this manner the ligature is doubled around the fragments, and by not completely withdrawing the needle before it is passed above the patella it prevents the skin or subcutaneous tissue from being caught in the ligature as is apt to be the case in the Barker method. After the needle is withdrawn, one end of the ligature is passed through the loop and, after pulling both ends tightly, they are tied firmly, thus making what is known as the Staffordshire knot. A little mani-

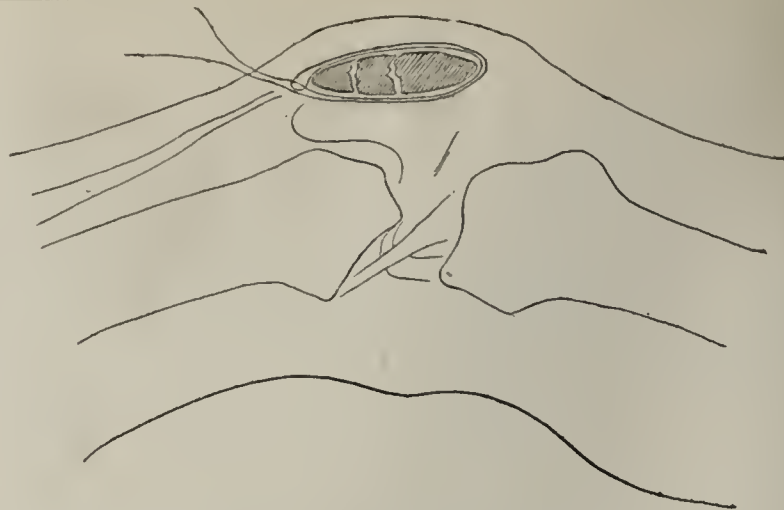


FIG. IV. Showing ligature passed around fragments and one end of ligature passed through loop.

pulation over the seat of fracture as the ligature is being drawn tight helps materially to arrange the fragments in their proper position. The ends of the ligature are cut off and the small incisions above



FIG. V. Showing operation completed. Staffordshire Knot.

and below the patella are closed with one or two catgut sutures and the parts dressed antiseptically and the limb put in anterior and posterior splints.

The advantages of this method are:

The double ligature.

The prevention of integument or subcutaneous tissue being caught between ligature and fragments; and, by using the Staffordshire knot, the ligature can be more tightly drawn and the fragments held more closely together.

I have only had the opportunity of applying this method in two cases, and with satisfactory results in both.

The first case was that of a young lady, 19 years of age, who was injured in a runaway accident, being thrown from a carriage and striking her knee on a projection in the road. The patella was broken into five fragments. An X-ray negative was taken of it both before and after the operation, but unfortunately the negatives were broken before I could get a satisfactory photograph from them. They showed the fragments very distinctly, however, and there was considerable separation and displacement of them (two being turned on edge) before operation and after applying the ligature, the fragments were nicely held together. The patient made an excellent recovery.

The other was an old man whose patella was fractured obliquely, there being but two fragments. This patient also made a good recovery. I hope to have opportunities of testing this method further.

The diagrams show the different steps of the op-



eration. The radiograph which is shown was taken 3 weeks after the operation in the first case, in which the patella was fractured into five fragments; it shows how well the fragments were brought together by the ligature.

I wish to express my thanks to Dr. W. Sanford, of Penn Yan, N. Y., for assistance in making the drawings for this article.

NOTES ON THE TREATMENT OF COLLES'S FRACTURE.*

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During a period of five years, ending September 1, 1898, there were treated in the surgical service of the Roosevelt Hospital Dispensary 1029 cases of simple fracture. Of these, 176 cases were fracture of the lower end of the radius, including 142 cases

of Colles's fracture. That is, in a rather extensive series of fractures the lower end of the radius was involved in about 17 per cent. of the cases, and the Colles's fractures represent about 14 per cent. of the total number.

From the history of Colles's fracture, its mode of production and its anatomy, from the fact that it is in the neighborhood of an important joint, from the varied lines of treatment in the past and at the present, and also the fact that, despite the surgeon and his treatment, the result is not infrequently unsatisfactory to the patient, this fracture is entitled to special study and consideration.

Without entering into the discussion as regards the mode of production of this lesion—a discussion which has continued to the present—the writer believes that Chiene's views on the mechanism of the deformity in Colles's fracture hold true to-day. The line of fracture is usually oblique, this being a tendency observed in all fractures produced by indirect violence. The main line of fracture may enter the wrist-joint, or it may be accompanied by an oblique fissure entering the joint, so that not

*Read at a stated meeting of the New York Academy of Medicine, April 3, 1902.

infrequently these fractures are intra-articular. This is a factor in regard to the prognosis, and the great interest taken in this lesion is not because it has not been thoroughly understood, but because so many results are unsatisfactory. In regard to displacement we must bear in mind that the carpus maintaining its relations with the articular surface of the radius is displaced with the lower fragment, thus throwing the styloid process of the ulnar into prominence. This explains the necessity of employing ulnar flexion (extreme adduction) in the treatment of these cases. Ulnar flexion tends to overcome radial shortening and effects replacement of the carpus with disappearance of ulnar prominence.

It must be the aim of every surgeon to secure perfect reduction of this deformity, and the only safe rule is to employ sufficient force, properly applied under anesthesia to secure the same. It has been frequently noted that, when the deformity has not been completely overcome, convalescence has been protracted, often followed by a painful and stiffish joint condition. Still we must bear in mind that after reduction and during convalescence pain frequently persists about the region of the styloid of the ulna, sometimes extending to the fifth digit and, as has been shown by Clement Lucas (Guy's Hospital Reports, Vol. XLII, 1883-1884, p. 375), is due to stretching of the dorsal branch of the ulnar nerve over the lower end of the ulna. The amount of force necessary to obtain absolute reduction varies considerably; often very great force must be employed, but rarely is it necessary to resort to the open method. Occasionally we have met with cases in which, though the deformity was slight, the impaction was very firm, in the management of which we were justified in not interfering, gaining in this way about three weeks time and obtaining a satisfactory result. Though such cases are met with, as a rule, the impaction must be broken up and replacement effected.

The special study of fractures by means of the X-ray has continued for some time, and I think we are in a position to-day to give to the Röntgen ray its proper place in a consideration of simple fractures. The radiograph graphically portrays the existing condition of the bones, and as a record of the case, as a part of the history, is of great value, and this is especially so in cases with a medicolegal aspect.

Certain questions arise in regard to the use of the X-ray in connection with fracture work, as—

- (1) Has the use of the X-ray supplanted the other methods in making a diagnosis?
- (2) Has the use of the X-ray been followed by change in our methods of treatment?
- (3) Are the results better to-day than before the general use of the X-ray?
- (4) Of just what practical value is the X-ray in the fracture under discussion?

First.—With the methods of diagnosis at our service, aside from the X-ray, we can, in the majority of cases, arrive at a correct conclusion. The history of the case, amount and direction of the force, palpation, gentle manipulation, diminution or loss of function, the linear character of the pain and the

employment of an anesthetic will enable us to make a clear and correct diagnosis in the majority of cases of fracture of the lower end of the radius. Occasionally we meet with obscure cases, frequently accompanied with considerable swelling of the soft parts and in which the bony deformity is slight, in which the X-ray assists us in having a correct appreciation of the bony lesion. Again, we meet with neglected cases which exhibit bony thickening and subperiosteal deposits, combined with thickening and edema of the soft parts, the whole forming a conglomerate mass, and in these cases the X-ray frequently fails to establish an exact diagnosis. Let us give the X-ray its proper place in fracture work, but at the same time let it be our aim to perfect ourselves in those other aids which in most cases enable us to arrive at a correct conclusion.

Second.—In the fracture under consideration the use of the X-ray has not been followed by any great change in our methods of treatment.

Third.—Our results are better to-day than before the introduction of the X-ray, but these improved results are not to be ascribed so much to the employment of the Röntgen ray as to other aids adopted by us during the past decade, viz., massage and the use of dry heat (250° to 350° F.).

Fourth.—The great value of the X-ray lies in this, that we now have a means, after the injured limb has been "put up," of determining accurately whether the fracture has been properly reduced or not; and in all fractures, after the final dressing has been applied, it is wise to submit the parts to an X-ray examination.

The common errors in the treatment of Colles's fracture may be enumerated as follows:

- (1) Failure to employ an anesthetic.
- (2) Failure to place the hand in the ulnar flexion.
- (3) Failure to employ massage.
- (4) Failure to employ the hot-air box, temperature 250° to 350° F., especially in patients over 40 years of age.
- (5) Early attempts to break up adhesions about joint and tendons by wrenching.

1. **Anesthesia.**—Impaction occurs so frequently as to justify the giving of an anesthetic in many cases, but, aside from impaction, the amount of force we have to employ, the necessity of perfect approximation of the fragments, the placing and holding of the hand in proper position, the application of the fixation apparatus with precision, to say nothing of the sufferings of the patient, cause us to advocate the use of an anesthetic in all cases of Colles's fracture, unless otherwise contra-indicated. Some years ago I used chloroform very largely; later nitrous oxide was employed, and during the past two years ethyl chloride has been used in many cases. It appears there is a certain risk in employing any anesthetic, but in appropriate cases I consider the administration of any one of the anesthetics named as perfectly safe and proper.

As soon as the patient is well under the anesthetic, reduction of the deformity is accomplished by making hyperextension of wrist-joint and hand, followed by the application of *sufficient* force over the lower fragment as to loosen it and force it forward and downward into its proper place. There would

be fewer cases of partial reduction if anesthesia was more generally employed, and this is especially true of the cases with much swelling. Scudder well says in his preface: "The general employment of anesthesia in the examination and the initial treatment of fractures, especially of those near and involving joints, has made diagnosis more accurate and treatment more intelligent."—Chas. L. Scudder, "Fractures," Philadelphia, 1901.

2. Importance of ulnar flexion.—Every case of Colles's fracture should be treated with the hand in the position of ulnar flexion. When this precaution is not observed, loss of function is frequent. In those cases in which there is a tendency toward radial shortening, or in which there is a tendency toward recurrence of the deformity, ulnar flexion is a potent means of preventing the same. In other fractures in this region the position of the hand must depend on the bony lesion and character of the deformity.

3. Value of massage.—The introduction of massage in the treatment of fracture cases marks the great improvement of the past decade. Function returns earlier and time is saved in the majority of cases in which massage is employed. This is especially true of fractures occurring in the neighborhood of important joints. Massage should usually be employed by the tenth day, i. e., when bone formation has really commenced, and in many cases may be employed earlier. In a few fractures I have employed massage during the first twenty-four hours.

4. Use of hot-air box in fractures about joints.—The value of employing dry heat, temperature 250° to 350° F., in fractures near joints, especially in patients over 40 years of age, has been repeatedly demonstrated. This causes more rapid absorption of exudates, disappearance of adhesions and an earlier return of function. Stiffish joints following trauma have been frequently benefited in this way.

5. Forcible wrenching to break up adhesions.—This procedure so frequently ends disastrously, especially in patients over 40 years of age, that it should be discountenanced. The use of the hot-air box, combined with massage, hot and cold douches, active motion will succeed where more violent measures aggravate the condition. Active motion is indicated. Passive motion, as a rule, is a contraindication.

Fractures of the lower end of the radius are seldom simple affairs of the bone, but, as a rule, they are combined with injuries to the soft parts and to the adjacent joint. The bony lesion requires simple fixation after reduction, but those other injuries require protection and massage. It will not do to reduce the deformity, place the limb in a proper position, apply the fixation apparatus and then let the patient go for a period of three to six weeks, expecting in this way to obtain a good result. The dressing should be changed as the edema subsides, and a removable fixation apparatus, preferably two light plaster-of-Paris shells, should be employed. Only in those cases in which there is a tendency for the fragments to slide should the splint be kept on for a considerable time, a period sufficiently long

for the fragments to become united, usually ten days.

We may employ two lateral splints of light wood, properly padded, applied with forearm semiflexed and in semipronation, or else a light plaster-of-Paris cast. When there is much edema or swelling, the plaster-of-Paris dressing should be employed, being properly applied. This requires considerable skill and precision. The fixation apparatus should at first extend downward to the distal end of the metacarpals, the fingers having free play. As the case progresses, the splint must be removed for inspection, for massage and for the application of dry heat.

In the management of fractures of the lower end of the radius we must pay more attention to the condition of the soft parts. Ignoring the injuries to the soft parts and to the joint, and simply treating the bony lesion has often resulted in a deplorable condition. In some of the cases treated by us I have regarded the bony lesion to be of decidedly less moment than the co-existing injuries to joint, ligaments and tendons.

In closing I would say that, when we employ the X-ray to show us that we have our injured limb "put up" properly, and when in the future management of the case we employ those two great aids, massage and dry heat, we will obtain more satisfactory results than has heretofore been the case; bearing in mind, however, the truth of Southam's conclusion: "In many cases (Colles's fractures), however, especially in old people, in spite of the most careful treatment, the wrist joint will never quite recover its normal shape or movement."

FRACTURES OF THE EXTREMITIES.

BEING A REPORT OF A THIRD SERIES OF 500 CONSECUTIVE CASES, VERIFIED BY RADIOGRAPHS.

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and M. I. WILBERT, Ph. G.,
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The possible advantages that are to be derived from the study of a large number of consecutive cases would appear to be of sufficient importance to be offered as a reasonable excuse for publishing this, the third, series of 500 cases of fractures of the extremities. This excuse would appear to be especially acceptable if, as in this case, the results were found to be at variance with generally accepted theories and ideas.

The recording and publishing of statistics of this kind is perhaps the only means by which a proper knowledge of the relative importance and frequency of otherwise unlooked-for fractures may be brought to the attention of medical practitioners. We should like to add here that the gradual improvement in the efficiency of the necessary apparatus and also in the technique of the various X-ray operators has done much toward increasing the available amount of data and knowledge concerning fractures, and especially in clearing up several little understood or disputed points. Among the points we would like

to call especial attention to, is the fact that this method of diagnosis has revealed the comparative frequency of more or less extensive bone injuries, at or near their articulating surfaces. This latter class of injuries, while a most important one from an economical point of view, has not received the attention that its importance would appear to entitle it to.

Despite the fact that the X-rays have been in use for upward of six years as an aid to the careful and scientific study of fractures and other pathological conditions of the osseous structure, many of the older and necessarily erroneous ideas are still being published in what purport to be modern treatises on fractures.

Just one case to illustrate the point in view. Dr. Barton Hopkins, in "A Clinical Treatise on Fractures," p. 33, dismisses fractures of the carpal bones with a five-line notice, in which he states that "the force required to fracture one or more of the bones of the carpus is so great that damage to the adjacent soft parts almost invariably accompanies the fracture."

By referring to the table of fractures at the end of this report it will be seen that in about nine per cent. of the cases reported here there was a fracture involving one or more of the carpal bones. In not a single one of these cases was the injury of such a nature as to necessitate amputation or resection. Nor was it accompanied by any extensive laceration or damage to the soft parts of the wrist. We might add that a number of cases of carpal fractures, reported by various observers in the medical journals during the past three or four years, would certainly indicate that this class of fractures is to be considered among the most common of the injuries at or about the wrist joint.

Among the carpal bones, the scaphoid is probably the one that is more readily injured; while a clinical diagnosis of this particular fracture is quite possible, it is not always positive. It is usually characterized by slight swelling over the seat of injury and by more or less persistent pain, usually exaggerated by moving the thumb.

Carpal fractures are, however, but one of several classes of fractures that are often overlooked; the metacarpal, tarsal and metatarsal bones and, as noted above, the articulating surfaces of the long bones are all quite frequently the seat of more or less extensive injuries that are likely to be overlooked or not recognized in an ordinary clinical examination. Any or all of these injuries are comparatively more common than the available text-books would lead us to believe.

It will not be out of place at this point again to call attention to the great importance of recognizing and properly treating these various injuries, and to reiterate that the proper and careful treatment of apparently slight injuries, at or near a joint, is of as much importance as the treatment of more evident injuries involving the diaphysis of one of the long bones.

The character and location of these joint fractures, the absence of crepitation or any marked deformity, all tend to render these injuries obscure and

frequently make a positive clinical diagnosis impossible. Nevertheless, as noted in connection with fractures of the scaphoid, a persistence of pain, accompanied by circumscribed tenderness and swelling, should give rise to a suspicion of a more or less grave injury to the osseous portion of the joint. If, for any reason, treatment has been deferred for 8, 10 or 12 days, the injury is likely to be complicated by either vicious union or excessive callus formation, any one of these may serve as an almost insurmountable obstacle to a subsequent complete restoration of function and may, on the other hand, lead to a more or less complete and permanent ankylosis, caused by the excessive proliferation and subsequent breaking down of the callus that has been thrown out, without having sufficient blood-supply to support or maintain it.

There appears to be a feeling among a large class of medical practitioners that little is to be gained from the routine use of the X-rays in the examination of the ordinary or uncomplicated fractures. The experience at the German Hospital does not coincide with this general opinion, for not only have a number of supposedly uncomplicated fractures proven themselves more extensive than anticipated, but in addition to this, in several cases the injury was of quite a different character from what one would expect to find, judging from the history and physical signs.

The theory that is sometimes advanced, that X-ray examinations will ultimately result in the complete loss of the surgeons' sense of touch, we do not believe to be founded on fact, as it has been found that observing men usually profit by their mistakes and are thus lead to pay more careful attention to details. In this direction a check on a diagnosis has been found to be of very great importance and usefulness.

The possible use of X-ray pictures as a basis of suits for damages for malpractice is another factor that has deterred many practitioners from using this means of verifying a diagnosis as often as they should. This peculiar antipathy is being overcome, however, by the knowledge that an X-ray picture can never be taken literally and that, to interpret a picture of this kind properly, we must be in possession of all of the accessory facts and factors. So that, while an X-ray picture is of undoubted utility as an aid to the proper diagnosis and treatment of an injury, it is not of itself satisfactory proof in all cases of the existence of such injury, nor does it indicate nor prove the nature of an injury or the probable results.

Of the following 500 cases, 301 were of the upper while 199 involved one or more bones of the lower extremity. Four hundred and twelve were in males and 88 in females. Two hundred and forty-four were of the right and 256 of the left-hand side of the patient. A more classified table of the various injuries and the age of the patients is appended. As may be noted, by far the greater number of this series of injuries occurred in patients between the ages of 11 and 40. The variety or kind of injury that is most common at the various ages is also of interest. We find, for instance, that in young children

fractures of the elbow are comparatively more frequent, while in the next decade fractures of the wrist and arm assume more importance. From 20 to 40, fractures of the ankle appear to be nearly, if not quite, as frequent as fractures at or about the wrist, and both of these diminish in comparative frequency, as with increasing years persons are less likely to expose themselves to the particular combination of circumstances that tend to produce these classes of injuries.

Of the phalangeal fractures there was one each of the first, second, third and fifth fingers.

Of the metacarpal fractures there were 14 of the first, 10 of the second, 1 of the third, 3 of the fourth, 2 of the second and third, 2 of the third and fourth, 1 of the fourth and fifth and 1 of the second, third and fourth metacarpal bones.

At the wrist a simple or uncomplicated fracture of the radius was found in 38 of the cases. In an additional 33 cases this fracture was accompanied or complicated with a fracture of the lower articulating surface of the ulna. An injury to the ulna above what would correspond to the epiphyseal line was noted in 8 cases, and in 16 an injury to one or more of the carpal bones complicated the fracture of the radius, while in 5 additional cases the injury to the radius was accompanied with a fracture of the ulna and a fracture of one or more of the carpal bones.

The ulna alone was found injured in 4 cases, while in 2 additional cases the fracture of the ulna was accompanied by a fracture of the scaphoid.

In 23 cases there was a fracture of one or more of the carpal bones, making a total of 46 cases in which one or more of the carpal bones were injured in this series of cases.

Of the 21 fractures of the forearm, 13 were of the shaft of both bones, 6 of the radius alone and 2 of the ulna.

Fractures of the elbow numbered 48 in this series. Of these, 43 include some portion of the lower articulatnig surface of the humerus. Three of these were accompanied by a more or less extensive injury to the coronoid process of the ulna, and 1 by a fracture to the head of the radius. In addition to

these, there were 7 fractures of the olecranon, 1 of the coronoid process and 2 of the head of the radius, and one of the shaft of the ulna below the coronoid process.

The shaft of the humerus was broken in 9 of the cases, while the same bone at or near its upper articulating surface was injured in 12, 2 of these including an injury to the acromion process of the scapula.

The acromion alone was injured in 11 cases, and in 4 more was accompanied by an injury to the acromial end of the clavicle. There were 10 fractures of the body of the scapula and 1 of the coracoid process. The clavicle alone was broken in 11 cases, and in 7 of these the fracture was near the acromial end or distinctly within the outer third of that bone.

The head and neck of the femur were fractured in 6 and the shaft of the femur was injured in 4 cases.

The 19 fractures at the knee included 5 of the lower end of the femur, 7 of the patella, 6 of the upper end of the tibia and one a fracture of both tibia and fibula, near or at the knee joint.

The 16 fractures of the leg included 11 of both bones, 4 of the tibia alone and one of the fibula.

Of the 103 fractures near or at the ankle, 37 were of the outer malleolus, 20 included some portion of both bones and 11 were of the lower end of the fibula. In addition to these, 7 fractures of the outer and 2 of the inner malleolus were accompanied by more or less extensive injuries to the tarsal bones.

The tarsus itself was injured in 26 cases, 15 of these being fractures of the os calcis, 6 of the astragalus, 1 of the astragalus and os calcis and 2 each of the scaphoid and inner cuneiform.

The fractures of the foot, 51 in number, included 28 of the metatarsal bones, 5 of the metatarsal and tarsal, 3 were of the metatarsal accompanied by a fracture of one or more of the phalanges and 15 were of the phalanges.

Appended is a classified list that will be of use in a comparative study of the relative frequency with which the various kinds of fractures are likely to occur:

TABLE No. I.

	Number of Fractures	Male	Female	Right	Left	0-10	10-20	20-30	30-40	40-50	50-60	60-70	Over 70	Total	Per cent.
Hand	45	37	8	20	25		14	10	14	5	1	1		45	9.
Wrist	129	102	27	63	66	3	32	29	21	18	18	6	2	129	25.8
Arm	21	17	4	9	12	1	10	2	3	4	1			21	4.2
Elbow	48	40	8	20	28	17	17	4	2	5	1	1	1	48	9.6
Humerus	9	8	1	3	6		2	4	1	2				9	1.8
Shoulder	49	37	12	34	15		4	10	11	6	8	8	2	49	9.8
Thigh and Hip	10	7	3	5	5		1	2	1	3	1	2		10	2.
Knee	19	13	6	11	8	1	2	4	4	4	3	1		19	3.8
Leg	16	13	3	6	10	2	2	2	3	6		1		16	3.2
Ankle	103	91	12	44	59	5	11	27	31	15	11	2	1	103	20.6
Foot	51	47	4	29	22	2	1	20	14	11	2		1	51	10.2
	500	412	88	244	256	31	96	114	105	79	46	22	7	500	100.

TABLE No. II.

A summary of the fractures, reported in this series.

Upper Extremity		Shoulder	49
Hand	45	Humerus	10
Phalanges	4	Clavicle	11
Metacarpals	41	Scapula	10
Wrist	129	Acromion process . . .	11
Radius	38	Coracoid process . . .	1
Radius and styloid pro-		Claviculae and acrom. .	4
cess of ulna	33	Acromion and humerus	2
Radius and ulna, high .	8	Lower Extremity	
Ulna	4	Head and neck of femur .	6
Carpus	23	Shaft of femur	4
Carpus and ulna	2	Knee	19
Carpus and radius . . .	16	Femur	5
Carpus, radius and ulna	5	Patella	7
Arm	21	Tibia	6
Radius	6	Tibia and fibula	1
Radius and ulna	13	Leg	16
Ulna	2	Tibia	4
Elbow	48	Tibia and fibula	11
Olecranon	7	Fibula	1
Olecranon and coronoid	1	Ankle	103
Coronoid and humerus	3	Inner malleolus	11
Ulna below Coronoid .	1	Outer malleolus	37
Head of radius	2	Both malleoli	20
Head of radius and hu-		Tarsus	26
merus	1	Tarsus and tibia	2
Inner condyle	10	Tarsus, tibia and fibula	7
Outer condyle	3	Foot	51
Both condyles	6	Metatarsal and tarsal .	5
Intercondyloid	2	Metatarsal	28
Supercondyloid	12	Metatarsal and phal-	3
		anges	
Shaft of humerus	9	Phalanges	15
		Total	500

Some Interesting Pediatric Cases. Under this title Alexander Szana has reported 3 case-histories in the *Medicinisch-chirurgisches Centralblatt* for July 11, 1902. In a child of 2, on the third day of varicella, an abscess developed above the crest of the ilium, extending 7 cm. under the skin. This formed in the vesicles and was easily cured by antiseptic dressings. A mother acquired syphilis while nursing an infant. The child, aged one year, then became affected. Both were given mercury. A boy of 21 months, on the third day of an attack of measles, after all fever and eruption had disappeared, shrieked, fought, ran about, lay on the floor, threw things out of the window, etc., for 4 hours. Another attack of temporary insanity followed, lasting one hour. He recovered upon bromides. [M. O.]

Tuberculosis of the Mammary Gland.—Poiteau has recently reported an interesting case of mammary tuberculosis in a woman of 30, in the *Journal des Sciences Médicales de Lille*, (June 21, 1902). She had an axillary fistula for over a year. Her mother died of phthisis, her father of tuberculous peritonitis and 3 sisters of phthisis. A fourth sister had consumption. Part of the breast and the axillary glands were extirpated and recovery followed. Histological examination proved that the condition was tubercular, many giant cells being observed. The mammary gland was probably affected secondarily, the axillary glands having been the primary seat of the disease. [M. O.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending September 27, 1902:

SMALLPOX—United States.

		C.	D.
CALIFORNIA:			
	Los Angeles.	Sept. 6-13.	7
	San Francisco.	Sept. 7-14.	5
ILLINOIS:			
	Chicago.	Sept. 13-20.	1
INDIANA:			
	Indianapolis.	Sept. 6-13.	1
KANSAS:			
	Wichita.	Sept. 6-13.	1
KENTUCKY:			
	Covington.	Sept. 6-13.	2
LOUISIANA:			
	Shreveport.	Sept. 13-20.	1
MARYLAND:			
	Baltimore.	Sept. 13-20.	1
MASSACHUSETTS:			
	Boston.	Sept. 13-20.	13
MICHIGAN:			
	Detroit.	Sept. 13-20.	8
MISSOURI:			
	St. Louis.	Sept. 14-21.	1
NEW HAMPSHIRE:			
	Nashua.	Sept. 13-20.	5
NEW JERSEY:			
	Camden.	Sept. 13-20.	2
	Newark.	Sept. 13-20.	2
	Plainfield.	Sept. 13-20.	1
NEW YORK:			
	New York.	Sept. 13-20.	3
OHIO:			
	Cincinnati.	Sept. 12-19.	1
	Cleveland.	Sept. 13-20.	86
	Toledo.	Sept. 6-13.	8
	Youngstown.	Sept. 6-13.	1
PENNSYLVANIA:			
	Altoona.	Sept. 13-20.	3
	Johnstown.	Sept. 13-20.	17
	McKeesport.	Sept. 13-20.	3
	Pittsburg.	Sept. 13-20.	20
	Philadelphia.	Sept. 13-20.	4
	Reading.	Sept. 15-22.	1
SOUTH CAROLINA:			
	Charleston.	Sept. 13-20.	1
TENNESSEE:			
	Nashville.	Sept. 13-20.	1

SMALLPOX—Foreign.

AUSTRIA:		Prague.	Aug. 23-30.	3
BELGIUM:		Antwerp.	Aug. 30-Sept. 6 . . .	1
		Brussels.	Aug. 30-Sept. 6 . . .	1
		Ghent.	Aug. 30-Sept. 6 . . .	1
ECUADOR:		Guayaquil.	Aug. 23-30.	3
FRANCE:		Paris.	Aug. 16-23.	1
GREAT BRITAIN:		Dundee.	Aug. 30-Sept. 6 . . .	1
		Liverpool.	Sept. 6-13.	3
		London.	Aug. 30-Sept. 6 . . .	12
INDIA:		Bombay.	Aug. 19-26.	2
		Calcutta.	Aug. 8-23.	3
		Madras.	Aug. 9-15.	2
ITALY:		Paiermo.	Aug. 23-30.	2
RUSSIA:		Moscow.	Aug. 16-30.	3
		Odessa.	Aug. 30-Sept. 6 . . .	1
		St. Petersburg.	Aug. 16-30.	39
		Warsaw.	Aug. 8-23.	5

YELLOW FEVER.

COLOMBIA:		Panama.	Sept. 8-15.	3
MEXICO:		Coatzacoalcos.	Sept. 6-13.	3

CHOLERA—Insular.

PHILIPPINE ISLANDS:		Manila.	May 10-Aug. 2	322
		Provinces.	July 19-Aug. 2	410
				2141 1664

CHOLERA—Foreign.

CHINA:		Amoy.	July 26-Aug. 2	40
			estimated.	
		Hongkong.	Aug. 2-9.	12
		New Chwang.	Aug. 2-16.	130
EGYPT:		Alexandria.	Aug. 16-30.	7
INDIA:		Bombay.	Aug. 19-26.	2
		Calcutta.	Aug. 8-23.	16
		Karachi.	Aug. 10-24.	1
		Madras.	Aug. 9-15.	1

STRAITS SETTLEMENTS:		Singapore.	July 26-Aug. 2	5
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PLAGUE—Foreign.

CHINA:		Madras.	Aug. 2-9.	14
EGYPT:		Hongkong.	Aug. 16-30.	7
INDIA:		Alexandria.	Aug. 19-26.	35
		Bombay.	Aug. 8-23.	19
		Calcutta.	Aug. 10-24.	20
		Karachi.	Aug. 9-15.	2

Simple Perforating Ulcer of the Nasal Septum. In the *Archives de Médecine et de Pharmacie Militaires* for July, 1902, Victor Martin reports a case of simple perforating ulcer of the nasal septum in a soldier, aged 26 years. Epistaxis was first noticed at 16 years, and persisted every summer, especially during hot weather. As he had neither syphilis nor tuberculosis, the ulcer in the nasal septum found by rhinoscopy was believed to be what Hajek described as simple perforating ulcer. The first stage of the ulcer is accompanied with frequent epistaxis; then perforation occurs and finally cicatrization follows. The formation of the ulcer should be prevented by application of boric ointment. [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8

VOL. X. NO 15

OCTOBER 11, 1902

\$5.00 PER ANNUM

The Limits of the Cellular Pathology.—The death of Virchow has served to call renewed attention to the cellular pathology, and the medical world must be prepared to see the system of that great scientist subjected, as time goes on, to a rather searching criticism. It is not to be supposed that any attempt will soon be made seriously to discredit the work of the great master in pathology. The cellular pathology is fundamental, and will probably stand for all time as a basis for scientific research. But to say that it represents the final word in pathology, might be a grave mistake, and one that might too readily be made.

The cellular pathology is after all merely histological. It has regard to structure, which it demonstrates no doubt with accuracy, but it does not take into sufficient account the active forces of disease. In other words, the object of its research is structural, not functional. It has to do with the groundwork of pathology, but not with the activities of the disease process. This distinction is vital, and opens up a wide field for speculation and investigation.

It is somewhat curious how this subject seems to ally pathology with some other of the physical sciences—for instance, heat, light and electricity. In all these sciences the physicists are in a strange state of unrest. The problems they ask themselves are: What is heat? What is light? What is electricity? These are forces that must be explained. It is the same with disease. For instance, Professor Thomson, of Cambridge, England, has taken up again the corpuscular theory of electricity and light. He inclines to the view that these forces are material, or, as Sir Isaac Newton said of light, that it is an "incessant hail of minute bodies." In other words, the problem is not so much one of structure as of force. It is no great stretch of analogy to say that this same problem is the problem of disease.

We may illustrate this by referring to the present state of neuropathology. The histologists apparently have almost come to the end of their resources. They have studied nerve cells until they cannot find much more to say about them except in such unsatisfying terms as "chromatolysis." The microscopist,

in chasing after minute structural changes, is lost in a mere contemplation of organic debris. But the essence, or force, of disease escapes him. Will he ever be the wiser so long as he merely studies the cell? It is as though one were to gaze upon the ruins of a house, after the flames had destroyed it, and were to attempt to reconstruct it from its own ashes, or by merely gazing at the ashes to learn aught of the destructive force that had done its work and spent itself. There are some things that are not given to the eye to see.

It is at this point, doubtless, that bacteriology and the new science of vito-chemistry must take up the work. It is here that we reach the limits of the cellular pathology. And it is here, we may say, that we have come round again to the old atomic theory of matter. This was old even with the Greeks, and yet modern physicists, and with them modern pathologists, with all their boasted progress, have only returned to the old starting-point of science and philosophy.

The problem of pathology, we repeat, is not merely to study dead matter; it is to study living forces. Not the organic, but the force that moves it; not the mere cell, but the disease—this is the problem of pathology.

The Etiology of Acute Rheumatic Fever.—Our views in regard to the etiology of acute rheumatic fever have undergone a gradual, but very radical, change. The chemical and nervous theories once so strongly insisted upon are no longer tenable in the face of modern investigation. Bacteriology especially has done much to show the actual cause of this protean affection, and in view of recent researches it may confidently be asserted that acute rheumatic fever is an infectious disease. Singer (*Wiener klin. Woch.*, XIV, 20, 1901) is of the opinion that rheumatic fever is a variety of pyemia. He was able in five cases of acute rheumatic fever, in which all the typical phenomena were present, such as endocarditis, pericarditis, etc., to find the streptococcus pyogenes in coverglass preparations and to make cultures of the germ from various internal organs. In a case of chorea accompanied with puru-

lent inflammation of the elbow joint, in which a follicular tonsillitis had preceded the chorea by three weeks, he was able to demonstrate in the pus from the elbow joint, in the synovial membranes and in the peri-articular tissues, in the endocardium, the pleura, the kidneys, the tonsils and the blood, the staphylococcus pyogenes aureus.

Singer is not of the opinion of Wassermann and F. Meyer, that a specific micro-organism is the cause of rheumatic fever, but believes that any of the pyogenic organisms may bring about this result. The micro-organism very frequently finds its way into the susceptible person by way of the tonsil. Schurig (*Deutsche mil.-ärztl. Zeitschr.*, 3, p. 170, 1900) found that, in over 50 per cent. of the cases of rheumatic fever in the Magdeburg Hospital, a tonsillitis preceded or accompanied the joint affection, and Quincke has quite properly called this condition "polyarthrititis anginosa."

The Treatment of Recurrent Pleural Effusions by the Injection of Gas.—The injection of gas into the pleural cavity has been recommended by Lemke, of Chicago, in the treatment of pulmonary tuberculosis, and by Potain in the treatment of pneumothorax. Lemke used nitrogen, and Potain used sterilized air. Teissier has employed the injection of gas in cases of tuberculous peritonitis with ascites, preferring sterilized air or nitrogen because oxygen is absorbed too quickly. In January, 1902, Vaquez and Quiserne, (*Gaz. Heb. de Méd. et de Chirur.*, May 29, 1902) saw a patient who had had pleurisy with effusion, of tuberculous origin, since May, 1901. During the time of his illness the patient had been tapped twelve times. The authors tapped him the thirteenth time and withdrew about a liter of straw-colored fluid. The effusion reappeared in two weeks. They then made another puncture and replaced the fluid withdrawn with about the same amount of sterilized air. The injection of air was followed by a rise of temperature to 40° c, (104° F.) with malaise; but these symptoms soon disappeared, and the patient left the hospital several months later with the signs of pneumothorax still present, but without having had a return of the effusion. The authors describe a second case in their paper, which was treated in the same way, with even better results; for at the end of two weeks the pneumothorax disappeared, and the effusion had shown no signs of returning. They believe the method described is legitimate and efficacious.

In order to carry out the treatment suggested it is necessary to use a trocar attached to a Y-shaped rubber-tube. One of the branches of the tube should communicate with a Potain's syphon, whilst the

other is furnished at about its middle part with a glass bulb, filled with sterilized cotton. The fluid is first withdrawn, and then air is gently forced into the pleural cavity through the sterilized bulb. The authors believe that this method will save the patient suffering from recurrent pleurisy the annoyance of having to undergo paracentesis thoracis at frequent intervals. Teissier is convinced that the injection of gas will cure experimental tuberculous peritonitis, and, when Vaquez and Quiserne reported their results at the Société Médicale des Hôpitaux, he said that it ought to prove of real benefit. One intending to employ the method should be very sure that all his instruments are perfectly sterile.

What Russia Does for Her Consumptives.—It is always interesting to know what our neighbors are doing, and in matters of such great importance as fighting the common enemy of mankind—tuberculosis—the actions of our transatlantic neighbors are of especial interest and may stimulate our own activity. It appears that in Russia they are taking a very sensible view of the situation, and, instead of fighting the tubercle bacilli, they are fighting the disease with a fair promise of accomplishing more good in the end. There are no "antispitting," "antishaking," "antikissing" and other "consumptive" laws there, but the idea of sanatorium treatment of the tubercular has taken deep root and promises to bring forth fruit in the very near future. Already a number of active societies for the prevention of tuberculosis, with the sanatorium as the central idea, have sprung up in various parts of the empire. These societies have been brought to life mainly by the efforts of physicians with the active co-operation of intelligent laymen. The "Kieff Society for the Prevention of Tuberculosis in the South," composed of lay and professional members, proposes to fight tuberculosis by education of the masses, as well as by the establishment of sanatoria. The projected sanatorium is to cost 150,000 to 200,000 roubles (\$75,000 to \$100,000), and already a single bequest of 70,000 roubles has been received. A similar society exists in Urjeff, with Prof. Degio as its president. In Warsaw, a sanatorium is being established by the "Hygienic Society," and contributions to the sum of 60,000 roubles have already been received. In Odessa, under the leadership of a woman-physician, a society of intelligent men has been organized for the purpose of disseminating information concerning tuberculosis by means of popular treatises, lectures, etc. Great activity in this direction is also shown by the Charkoff Medical Society, and even in Siberia and other parts of the east. In Moscow, the establishment of a sanatorium by the city is in

progress, and a single donation of 200,000 roubles has been made toward the project. Besides, in the nearby county of Bronitsk a sanatorium is to be established shortly by the funds contributed by Chrapouloff (100,000-150,000 roubles). A number of sanatoria are already in successful operation in Ialta, Finland, St. Petersburg and other places, and many others are being projected. We can only point to this activity as an example worthy of emulation.

The Isolation of the Typhoid Bacillus from Water.

The well-known difficulty of isolating the typhoid bacillus from water is still confronting the bacteriologists, who vie with each other in devising methods for its isolation, none of which, however, has been found uniformly successful. Over 20 methods have already been suggested and the number keeps on growing. This apparently insurmountable difficulty is conditioned, in the first place, by the large number of saprophytic bacteria which are the common inhabitants of water and which grow much more luxuriantly on gelatine than the typhoid bacillus, and, in the second place, by the fact that even if the saprophytes are removed by the addition of carbolic acid (Parietti's method), the colon bacillus, which usually occurs in polluted waters, is even more resistant to the influence of restraining media, and being greater in number outgrows the typhoid bacillus. Added to this is the close similarity between the typhoid and colon colonies on gelatine, which makes it impossible to pick out the former with any degree of certainty. To find a single typhoid colony among, say, 50 or more colon colonies, is like finding a needle in a hay-stack. For this reason bacteriologists and sanitarians have given up all efforts to isolate the typhoid bacillus from suspected water, and content themselves with the detection of the colon bacillus, the latter being looked upon as an indication of sewage contamination and, indirectly, as an indication of the possible presence of the typhoid bacillus. This apparently easy solution of the problem, however, is by no means as satisfactory as we would like to have it. There are a number of objections to this sophistic way of determining the presence of the typhoid bacillus. First, the sewage contaminating the water may have been free from typhoid bacilli. We can readily conceive, for instance, a case in which the drinking water is found to contain colon bacilli, while the typhoid infection may have come from another source. Second, the colon bacillus found in suspected water may have come from the feces of domestic animals and in that case would not be an indication of contamination with human feces. Third, there is probably a variety of colon bacillus widely distributed in nature, which does not come from feces at

all. Thus, the sanitarian is left at sea in the matter of completing the chain of evidence in cases of infection with typhoid fever. It is evident that the missing link—the detection of the typhoid bacillus in the suspected water—must be forged before a prima-facie case can be made out. This has been accomplished only in a few isolated cases. Lately, Vindelbandt (*Russki Vrach*, No. 19, 1902) suggested a method of isolating typhoid bacilli from water, which may prove of value and certainly deserves investigation. He immunizes rabbits to a virulent culture of typhoid bacilli and obtains a serum possessing a high agglutinative value (1:10,000). The serum (or blood) is preserved either by drying in the exsiccator or diluting with normal salt solution and keeping it in the dark. A certain amount of the suspected water is added to 10 cc. of bouillon, which is incubated for 3 to 5 days. If any pellicles form they are removed either by carefully decanting the uniformly turbid fluid or centrifugalization. To the uniformly turbid culture is then added a small amount of the agglutinating serum and the tube replaced in the thermostat for several hours. If typhoid bacilli are present, they become agglutinated and form a sediment, which may then be removed and plated in the usual manner. As agglutinated typhoid bacilli are still viable, those in the sediment develop into colonies. So far the method has been employed as an experiment, both typhoid bacilli and coli communis having been added to the water. The author succeeded in detecting typhoid bacilli when added in proportion of one part of culture to 10 to 30 million parts of water.

The Coal Strike from the Hygienic Standpoint.

It is too soon yet to say what exact effect the strike of the coal miners will have upon health, but there are few persons who can remain blind to the fact that it must increase sickness and even cause death. We are not called upon here to discuss the political and sociological aspects of this strike—although it is difficult to refrain from an expression of disgust at such a blot upon our civilization—but we are more than privileged to raise our voice in emphatic protest at this crime against the poor, the invalid and the helpless.

The men who are responsible for this situation will have laid at their doors by a righteous and outraged public opinion an increased death-rate with the onset of cold weather. Any other result is inconceivable. The destitute households, and even the well-to-do households, wherein suffering and disease will pay their tax and their tribute to help to support the quarrels of capital and labor, are about to enter upon their period of trial. No per-

sons understand what this means better than the doctors, and no persons have the right and the duty more plainly indicated for them to speak and to protest in this crisis.

We are now in the second week of October. There is no provision to meet this hygienic crisis in thousands of households. Let the wrangling operators and miners weigh their responsibility.

How Cleveland Stamped Out Smallpox Without Vaccination.—It will be recalled how Dr. Martin Friedrich, Chief of the Cleveland Board of Health, claimed that he had eradicated smallpox in that city last spring by a system of rigid sanitation. As a result of his very meritorious labors, he announced in a letter to the *Arena* in April that "Cleveland is now free from smallpox." At the same time vaccination was held up to obloquy, and the Hon. Tom Johnson, Mayor of Cleveland, was credited with the honor of leading the people of that city to see a new sanitary light.

This crusade against both smallpox and vaccination was heralded with joy by some people, and the Massachusetts Anti-Vaccination Society sent out printed circulars broadcast announcing the glad tidings. But the late numbers of the *Public Health Reports*, issued by the Marine-Hospital Service, must be cold comfort for the advocates of the new method.

According to these reports, there were 532 cases of smallpox, with 73 deaths, in the city of Cleveland, Ohio, from June 1st. to August 30th. of this year—or less than six months after Dr. Friedrich announced that the disease was eradicated. As the *Albany Medical Annals* points out, this is more than one-third of the total number of cases of smallpox in Ohio for the same period, and is three quarters of all deaths from smallpox occurring in the state; and this is "How Cleveland Stamped out Smallpox without Vaccination."

We fear the Cleveland authorities will have to begin again, and that the Massachusetts Anti-Vaccination Society will have to repress its enthusiasm.

The Crazy Doukhobors.—Not without medico-psychological interest are the Doukhobors and their foolish frenzies. These people are Russian emigrants who have settled away up in Manitoba. They have broken out in what is miscalled a "religious mania," but which is more truly a sort of hybrid and transplanted Tolstoyism. The Doukhobors have discovered that it is "sinful" to kill animals for food or to use them for work or pleasure. Consequently they have set all their horses, cows, pigs and chickens adrift, and have perforce neglected their harvests, and have made no provision for the

approaching Manitoba winter. They are already famished and gaunt, clad only in cotton goods, and crazed with their delirious ideas. The Canadian government is being appealed to, and nobody knows what will become of the fanatics. The thing most urgently needed in their midst, next to food and clothing, is evidently a capacious insane asylum.

A writer in the *London Morning Leader*, commenting on the antics of these ignorant peasants, says they are trying to solve the problem which Buddha propounded and which Hindoo religionists have been trying to solve for centuries, to wit, the problem of living without taking life. If this is so, the Doukhobors must be closely allied to the Anti-vivisectionists, only they are more logical and consistent; consequently they are crazy, for they follow out their ideas even in the face of a Canadian winter. They seem to us to be tinctured with some of Tolstoi's impracticable doctrines. Thus the diagnosis seems to indicate a mixture of Buddhism, Tolstoyism, anti-vivisectionism, and mere everyday fanaticism.

In the meantime these poor wretches are killing themselves off—and that is nature's way of solving such problems, and of demonstrating the wholesome Darwinian law that the unfit shall not survive.

Reminiscences of the Cardiff Giant.—Of somewhat kindred interest with the foregoing is the history of the Cardiff Giant, which Hon. Andrew D. White, Ambassador to Germany, has given in the current number of the *Century Magazine*. The memory of this colossal fraud has probably passed out of the minds of many elderly people, and the younger generation know nothing about it; hence Dr. White's paper is as timely as it is interesting. Its special value consists in its portrayal of the almost immeasurable dimensions of human credulity; and we refer to it here largely on that account, and because nowhere more than in the field of medicine, especially in this country today, is there so much rampant humbuggery of the exact kind that was represented by the celebrated Cardiff Giant.

The object of this superstition was an immense stone statue of the human figure, which was found buried in the ground near Cardiff, in the Onondago Valley in New York, in 1869. It was the object of goggle-eyed wonder and awe on the part of all sorts and conditions of men—physicians, clergymen, judges, scientists. All were deceived, and emitted the veriest drivel about the "stone age," the "petrified giant," the "verification of Scripture," "Phenician voyagers to America in ancient times," and so on *ad infinitum*. The statue in reality was carved in

Iowa, and palmed off on the American public by a "smart" Yankee, who made much money out of it.

In reading Dr. White's paper the question has occurred to us whether after all our popular education does not do much to disseminate ignorance and credulity. The craze over the Cardiff Giant may be likened to such crazes as Christian Science, Doweyism, and that of the fanatical Doukhobors; and the reading public is gulled. Dr. White's paper is a splendid dissection of such a popular craze.

Dr. William Pickett's claim of priority for having demonstrated the infraspinal reflex is explained in his letter, which we print on this page, and is evidently well founded. This is apparently another case in which a German writer has not had strong enough eyesight to see across the Atlantic Ocean.

Current Comment.

THOMAS JEFFERSON'S OPINION OF MEDICAL SCIENCE.

Jefferson was sceptical as to the science of medicine, and discussed the subject with the same interest that he did theology and politics. He believed in a vegetable diet and in permitting nature to "reestablish order" in the human system when any of its organs or functions were deranged. "Experience," he says, "teaches that there are certain substances by which, applied to the living body, internally or externally, nature can be assisted, and thus accomplish in a short time what nature would do slowly. So far," he continues, "I bow to the utility of medicine, but here the judicious, the moral, the humane physician should stop. But the adventuresome physician goes on and substitutes presumption for knowledge. He forms his table of nosology, arrays his diseases into families, and extends his curative treatment by analogy to all the cases he has thus arbitrarily marshalled together."

—The True Thomas Jefferson.

THE MARCH OF DEATH HALTED.

One of the most striking evidences of the efficiency of the Medical Department of the army in the Philippines appears in the record of its work in treating dysentery. As in other wars, this disease has been a grave peril in the Philippines, where it has caused many deaths and hundreds of cases of total disability among the American troops. Yet, in spite of climatic and other conditions which render the disease exceptionally virulent and deadly, the Medical Department has almost completely eradicated it. This extraordinary result has been accomplished through the vigilant enforcement of sanitary measures requiring that all drinking-water shall be boiled, that men shall wash their hands before handling articles of food, and that the utmost care shall be taken to prevent the infection of towels and table linen. Because of this wise precautionary policy, dysentery has almost disappeared from the army stations in the archipelago, and results almost as marked have been accomplished in treating typhoid fever. The record is one which has never been surpassed by the medical authorities of an army of white men in a tropical campaign.—The Army and Navy Journal.

Correspondence.

THE INFRASPINATUS REFLEX: A QUESTION OF PRIORITY.

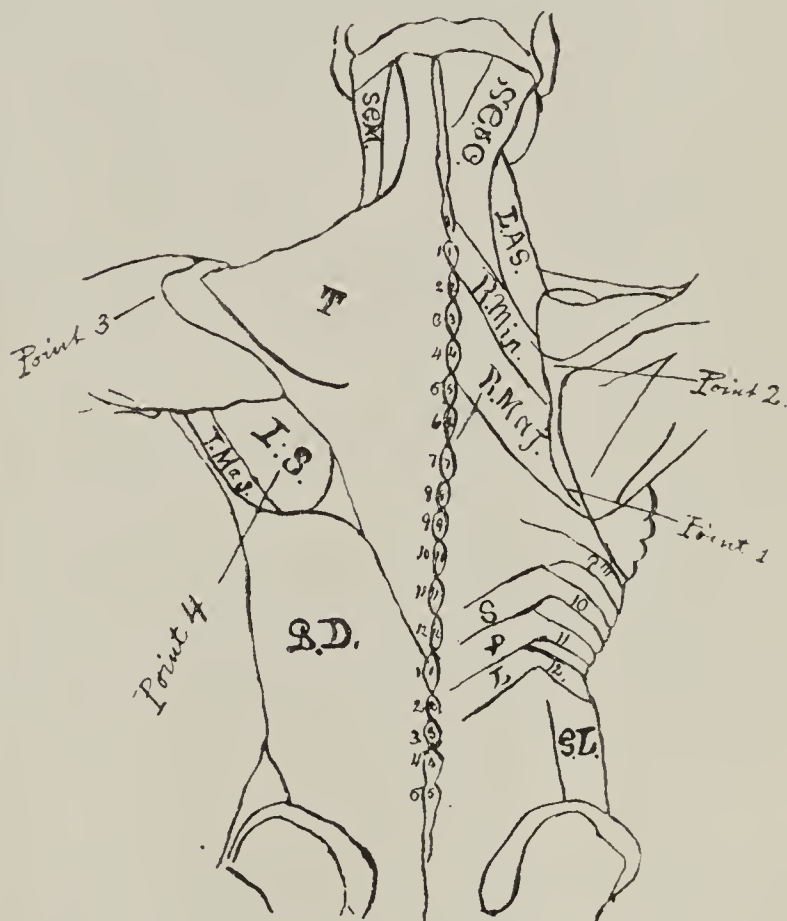
By WILLIAM PICKETT, M. D., of Philadelphia.
To the Editor of the Philadelphia Medical Journal.

Even at the risk of appearing to assume the rôle of a frantic claimant of perhaps small credit, I desire to call attention to the fact that a supposed new reflex, just announced from Germany, was described briefly in a paper by myself on the Scapulo-humeral Reflex of von Bechterew, based upon work done at the suggestion of Dr. Dercum, read before the Neurological Society nearly two years ago, and published in the *Journal of Nervous and Mental Disease*, May, 1901.

The German contribution is by Professor Steiner, of Cologne, and occupies 3½ pages of the *Neurologisches Centralblatt*, Sept. 16, 1902, its title being "The Infraspinal Reflex: a Hitherto Unknown Reflex of the Upper Extremity of Man."

My account of this reflex is in the following paragraph from the *Journal of Nervous and Mental Disease* of the date mentioned, and I quote it because it is practically an anticipation of Steiner's description of the Infraspinal Reflex:

"In one case of left hemiplegia, one of spinal muscular atrophy, one of syringomyelia, one of cervical Pott's, and in the case of "neuritis following thrombosis of the axillary artery," a reaction was obtained by striking the body of the infraspinal (point 4 in the diagram), and nowhere else: this reaction consisting, in each case, in strong ex-



The Infraspinal Reflex.

ternal rotation of the upper arm, apparently due to a direct contraction of the infraspinal muscle."

In the midst of this paragraph appeared the accompanying anatomical diagram with "point 4" indicating the very spot which Professor Steiner defines as the one to be tapped in order to elicit this reflex.

When I read my paper, and again last spring, when the subject came up at the Neurological Society in connection with the "Pectoral Reflex" described by Dr. Charles K. Mills, the opinion of the members was, I believe, that these

(including another that I mentioned in my paper) are all modifications of von Bechterew's reflex, since the motion of the arm is similar in all, and the spinal center of each is in the same segments of the cord, with the possible exception of Mills' "Pectoral" reflex.

It did not seem worth while to give these reflexes special names; but, since Steiner and the *Neurologisches Centralblatt* regard the "Infraspinatus" as an important reflex, patriotic as well as personal motives impel me to claim priority in its discovery.

THE SUPERINTENDENCY OF THE PHILADELPHIA HOSPITAL.

By ODIN R. EDWARDS, Superintendent of the Methodist Episcopal Hospital,
of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

Your article in the *Philadelphia Medical Journal* entitled "A Medical Man for Blockley," was read by me with deep interest. It is a subject that should concern every citizen of our city. Will you pardon me if I say that you have not touched the vital question—a question that should be solved in the election of a superintendent. It is not so much a medical man that is needed as it is an honest man. What is most needed to-day is to remove the institution outside the pale of political favoritism. It will be almost impossible to get any better administration from either doctor or layman if the superintendent is put there by the machine. *Eradicate politics absolutely.* Break off the shackles, and give the suffering poor that care which is worthy of our noble city, and of which every citizen may feel proud when Blockley is mentioned. We suggest that Blockley still have a layman at its head, a man of well-known practical business ability, and one who has no professional tendencies or aspirations that will draw him from the careful study of economic measures and modern improvements that are for the alleviation of the diseased wards of our city. Give to this man absolute charge (under the management) of purchasing supplies, employing help, keeping order in the household, suggesting necessary improvements, etc. Also employ a physician (elderly man) of well-known ability for the professional part of the work. To quote from an article in the *Philadelphia Medical Journal*, written by Augustus A. Eshner, M. D.:

"The successful administration of the affairs of a hospital, therefore, requires such a division of labor as assigns responsibilities for all purely business matters to the lay managers and for all purely professional matters to the medical staff."

If this be true, in reference to the managers, how much more important it is that it should be true of those who have direct supervision and management of internal affairs of the hospital, and who must act as the case demands and not without mature consideration? This would certainly apply to a large institution like Blockley.

Reviews.

A Text-Book on Diseases of Infancy and Childhood. For the Use of Students and Practitioners. By Henry Koplik, M. D., Attending Pediatricist to Mt. Sinai Hospital, New York; ex President of the American Pediatric Society, etc. Lea Bros. & Co., 1902, Philadelphia.

Many new books have recently appeared upon this subject. On account of its brevity, thoroughness and excellent teaching, this one deserves a high rank among them. Yet, though well-bound and printed on good paper, with many splendid original illustrations, it fails to a great extent to produce an effect on account of its English. The author, proficient in the different languages of Europe, as constant quotations show, has written an English text-book which in many places contains glaring grammatical errors. Some of the pages are composed of many tiny, choppy sen-

tences, averaging one to each line, very wearisome to the reader. Numerous mistakes in spelling are also found, even in proper names, such as Forchheimer for Forchheimer, Llad for Ladd, Mendolsohn for Mendelsohn. Other typographical errors which have remained uncorrected are physiological and achondroplasia.

The best chapter in the book is undoubtedly that upon the infectious diseases. Others which are particularly good are those on rachitis, septic infection in the newborn infant, diseases of the heart and diseases of the gastro-intestinal tract. Koplik comments upon the uselessness of the Babinski reflex in infants under the second year, and of Kernig's symptom in those under one year of age. He disapproves of washing the mouth of a breast-fed infant; that of a bottle-fed infant may be washed once a day. It seems strange, also, that a man with so large an experience cannot come to any conclusion upon the efficacy of unpasteurized and unsterilized milk. He considers "any unheated animal milk distasteful," even the clean milk of our modern model dairies. For the home modification of milk he advocates the Chapin or König method. He has not as yet formed any opinion upon the value of using a dextrinized cereal for diluting a milk mixture. He begins the use of cereals, however, when an infant is only 7 months old. Weaning he advises between the ninth and twelfth months.

Among the items of interest noted in perusing this book was the excellent description of the technique of lumbar puncture and the details for the examination of the cerebrospinal fluid. In performing this operation Koplik inserts the needle directly in the median line. Scrofula and scrofulosis receive a great deal of attention, considering their relatively small importance. Potassium chlorate should be avoided in infants with stomatitis or follicular tonsillitis, on account of its possible effect on the kidneys. Calomel he gives in ½-grain doses, 2 or 3 times a day. In the treatment of summer diarrhea he recommends 2 rectal enemata daily. It is odd that, after speaking of the 4 histological forms of syphilis of the liver (page 612), only 3 are described; nor were his results in enuresis good, with any method of treatment. On the whole, however, this book is a short, concise, yet comprehensive, treatise upon the diseases of infancy and childhood. Most of Koplik's conclusions are undoubtedly the result of a large personal experience, and they are therefore exceptionally valuable. [M. O.]

Der Hitzschlag auf Märschen. Von Dr. A. Hiller. Berlin, 1902. August Hirschwald.

The monograph of Dr. Hiller upon heat-stroke during marching is much more elaborate than its name indicates. Commencing with a chapter on the history of heat-stroke from the oldest times to the present day, he discusses its occurrence in various countries, particularly among the military forces. There are some interesting data in this. Heat-stroke is more common in the French army than in any other, excepting the British army in India and the American army. It appears, however, that in the French and American armies the death-rate is lower, and Hiller therefore suspects that in the statistics from other sources many of the milder cases are excluded. The most serious instance of heat-stroke, curiously enough, occurred in the Belgian army, upon one march 450 out of 600 men being stricken. In the discussion of the cause of heat-stroke Hiller reports a great number of experiments that he made in order to determine what factors in the way of clothing, exercise, etc., appeared most to increase the body heat. Naturally, he reaches the conclusion that heavy clothing, particularly if associated with heavy accoutrements, predisposes most to heat-stroke, and that the severest form of weather is a hot, quiet day with a high dewpoint. The chapters upon the pathogenesis are excellent. That upon the symptomatology is perhaps not quite as satisfactory, but this may be due to the milder forms that are usually observed in Germany. He recognizes 3 types: the asphyctic, the paralytic and the psychopathic. In discussing the treatment he differs radically from American practice. The general indications are the restoration of the exhausted respiration, the stimulation of the exhausted heart and the elimination of the poisonous products of metabolism from the blood. In certain cases he recommends reduction of the warmth of the body, control of the spasms, the treatment of the delirium of exhaustion, and catheterization. Among

the special procedures he is in favor of artificial respiration, stimulation of the skin, the administration of ether and digitalis, occasionally venesection and hypodermoclysis. He considers that sprinkling with water is quite sufficient to control the temperature. We believe if Dr. Hiller should spend some time in Philadelphia during a hot spell and observe the practice in some of our hospitals, he would learn more efficient methods. He admits that the United States is the greatest country in the world for heat-stroke, and mentions some remarkable epidemics that have occurred here. It is, therefore, curious that he draws so little upon the numerous American publications on this subject. Nevertheless, the thoroughness and painstaking with which he has discussed heat stroke renders this book one of the most valuable ever written about it, and a mine of information for all who are interested in it. [J. S.]

Neuroses of the Genito-Urinary System in the Male. By Dr. R. Ultzmann; Translated by Gardner Allen, M. D. Second Edition. F. A. Davis Co., Phila., 1902.

This translation of Dr. Ultzmann's book is very cleverly done. The subject is of course treated in an authoritative manner, much stress is laid upon the pathology and physiology and, in the treatment, considerable attention is paid to local measures applied to the prostate, which appears to be greatly concerned in all forms of sterility and impotence. Great praise is due to Ultzmann for the thoroughly scientific manner in which he treats this subject and the same may be said of Allen's supplementary article upon nervous impotence. After all, although a considerable portion of the book is devoted to therapeutics, apparently but little can be done in the majority of cases. The great importance of this subject is beginning to be recognized, because there is so often a sexual element in neurasthenia in men. [J. S.]

Transactions of the American Pediatric Society. Thirteenth Session. Held at Niagara Falls, N. Y., May 27, 28 and 29, 1901. Vol. XIII.

This volume of excellent articles upon the diseases of children, though it has but just appeared, has been reprinted from the *Archives of Pediatrics* for 1901, the official publication of the society. It contains papers on summer diarrhea by Booker and Kerley, on pernicious anemia by Rotch and Ladd, on congenital heart disease by Morse, on appendicitis by Griffith, on milk sugar by Jacobi, on influenzal nephritis by Miller and on other subjects by Holt, Carr, Freeman, Koplik, Rachford, Churchill, Huber and others. [M. O.]

A Case of Cervical Actinomycosis.—Delassus (*Journal des Sciences Médicales de Lille*, August 2 and 9, 1902) reports a case of acute cervical actinomycosis in a man of 29, who first noted trismus. Swelling appeared in the left parotid region and a fistula persisted after the extraction of a carious tooth. The trismus grew more marked and the left submaxillary region became shiny, dark violet and of almost wooden consistency. Potassium iodide was given, and the locality was incised, curetted and drained. Bacteriological examination showed the mycelia of actinomycosis. The potassium iodide was increased to 45 grains daily, and recovery followed in 6 weeks. The parasite probably gains entrance to the mouth upon vegetables, and there is generally some dental caries. Infiltration and a little seropus result, with fistula formation. Lymph-glands remain unaffected. The process spreads by continuity only. Internally potassium iodide in large doses, locally incision, curettement and drainage are indicated. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

The Health of Philadelphia.—During the week ending October 4, 100 cases of typhoid fever were reported, with 10 deaths. It is estimated that there are between 400 and 500 patients with typhoid fever now under treatment in the city. Many of these cases were undoubtedly contracted outside of the city. There were 64 cases of scarlet fever reported with no deaths; 25 cases of diphtheria with 4 deaths, and but 3 cases of smallpox without any deaths. There seems now little danger of a further outbreak of smallpox during the winter. Precautions, however, have by no means been neglected, and vaccination of every citizen is being urged. The total number of cases of smallpox during September was only 14.

Pekin Hospital, Pekin, China.—Dr. Joseph F. Briggs, of Pittsburg, a graduate of the University of Pennsylvania, formerly resident physician at the Presbyterian Hospital, Philadelphia, and on the staff of the St. Francis Hospital and Children's Hospital, Pittsburg, has just been appointed by the Presbyterian Board of Foreign Missions to take charge of their newly built hospital at Pekin, China.

Typhoid Fever at Shenandoah.—Typhoid fever developed in the camp of the 12th. Regiment about 2 weeks ago, 30 men already having been affected. Every company in the Second Battalion has had one case. One man has already died, and several are seriously ill. As no cases occurred among civilians, the Board of Health of Shenandoah concluded that the infection, brought to camp by one of the soldiers, was limited to the camp. On this account, the site of the camp has been moved, the 12th. Regiment taking possession of higher ground on top of the mountain, a half mile back of its former location. It is also hoped that the camp of the Second City Troop may soon be moved, to prevent the occurrence of any cases of typhoid fever.

Philadelphia Board of Health.—It is not generally known that information concerning diphtheria, typhoid fever, sputum examination, etc., can be obtained on Sundays or legal holidays by application or by telephone at Room 708, City Hall, between 9 and 10 a. m. Physicians sending a culture to the laboratory can get a report upon the result of the examination by telephoning to the laboratory between these hours, or by sending their telephone address with the culture. The telephone address of the laboratory is by way of the Electrical Bureau, City Hall. On other days reports will be furnished between 10 a. m. and 5 p. m. After laboratory hours on Sundays and holidays, except during the hours named above, cultures and other materials for examination must be taken to the police district station house, or to Room 533, City Hall. Diphtheria antitoxin, culture outfits and typhoid fever envelopes may be obtained at any time at the police district station houses, free of charge. Antitoxin may also be obtained on Sundays and legal holidays, at Room 517, City Hall, from 9 to 1 and 2 to 6. Blanks for reporting contagious diseases are furnished upon application, by telephone or by letter. Contagious diseases should be recorded as soon as possible after diagnosis. After the recovery of patients from contagious diseases, physicians should notify the Board of Health, that the premises may be disinfected. In no case will such disinfection be done at the request of the family in which the disease has occurred. When disinfection has been done, the bedding will be removed for special disinfection, and the placard will be taken off. The office of the medical inspector, Room 616, City Hall, is open from 9 a. m. to 3 p. m.: on Sundays and holidays from 10 a. m. to 1 p. m. On Saturdays it is closed at noon. In reporting contagious cases, physicians are requested to be careful in giving the correct address of patients. In cases of special emergency, the president of the Board of Health can be communicated with at any time, through the Electrical Bureau.

Free Hospital for Poor Consumptives.—It is proposed to establish throughout Philadelphia numerous clinics for the treatment of consumptives, who, by reason of their employment, are unable to devote the time required for their treatment in a home or hospital. This crusade against tuberculosis will be under the direction of the

Free Hospital for Poor Consumptives, located at White Haven, Pa.

Philadelphia County Medical Society.—The following amendments have been proposed for medical defence: Within 15 days after the business meeting in January, the directors shall appoint an attorney-at-law for one year, who, in addition to representing the society in suits and threats against its members, will assist the district attorney in prosecuting illegal practitioners, etc. The directors shall assume the defence of suits for alleged malpractice brought against the members of the society, but shall not undertake the defence of any suit based upon acts prior to the qualification of the accused as a member of the society. The member shall first present his case to the censors, who shall decide on the validity of his claim. He may then sign a contract, vesting in the directors sole authority to conduct the defence or to settle by compromise; provided, however, that nothing in the foregoing shall conflict with united action in the defence by the officials of any corporation organized for this specific purpose, with which a member may be connected. The directors shall contract with said applicant to take full charge of said suit, to furnish legal and medical expert services and to pay all necessary expenses; provided, however, that if the accused is connected with a corporation organized for the legal and financial defence of physicians, the foregoing responsibility of the directors may be divided with said corporation. The directors shall not obligate the society to the payment of any damages awarded by decree of court or compromise. The directors shall have authority to name the sum for the compensation for the attorney. That the directors may have sufficient funds, it is expected to raise the annual contribution to \$5, payable at the business meeting in January.

NEW YORK AND NEW JERSEY.

New Jersey State Medical Examining Board.—At the last meeting held October 1, 23 out of 28 candidates who took the State examination, September 16 to 17, were licensed to practice medicine in New Jersey. Beginning with the next examination, in June, 1903, each applicant will be required to file with his application a recent photograph and an autograph signature, duly attested before a notary.

New York Ambulance Surgeons.—Since the beginning of October the ambulances of Bellevue, Gouverneur, Harlem and Fordham Hospitals, New York City, have been in charge of the senior instead of the junior residents, as was formerly the case. Under this rule a resident physician, who has spent 6 months in charge of the receiving ward of one of the above-mentioned hospitals, is considered a senior resident. It is believed that the ambulance service will be greatly strengthened, mistakes and erroneous diagnoses being to a great extent avoided by this plan.

Dr. Byrne's Death.—Dr. John Byrne, one of the best-known gynecologists in New York, died October 1, at Montreux, Switzerland, aged 77 years. Born in Ireland in 1825, he was at the head of a fever hospital during the great famine in 1847. His medical education was secured in the medical schools of Belfast, Dublin, Glasgow and Edinburgh. He received his degree from the University of Edinburgh in 1846. In 1848 he came to the United States, settling in Brooklyn. He received the degree of M. D. at the New York Medical College in 1852. He was one of the founders of the Long Island College Hospital and St. Mary's Hospital, Brooklyn, member of the Brooklyn and King's County Medical Societies, fellow of the New York Academy of Medicine and president of the Brooklyn Gynecological Society, New York Obstetrical Society and American Gynecological Society. He was in Rome in September last, having read a paper at the Obstetrical Congress there.

NEW ENGLAND.

To Fight Tuberculosis in New England.—The Vermont Society for the Study and Prevention of Tuberculosis was organized at Burlington, September 29. A constitution was adopted, resolutions relative to a State sanatorium were passed and various phases of tuberculosis were discussed. The following officers were elected: President, E. C. Smith, St. Albans; vice-presidents, Drs. D. D. Grout, Waterbury and C. W. Peck, Brandon; secretary, Dr. H. E. Lewis,

Burlington; and treasurer, H. L. Stilson, Bennington. The Massachusetts State Board of Charities has issued a circular calling for opinions as to the necessity for additional provision for the care and treatment of consumptives. At present the city of Boston has no hospital to which to remove consumptives. Since October 1, Worcester, Mass., has had a tuberculosis inspector, to detect and report to the Board of Health every case in the city and to take proper steps against contagion. It is hoped by this means eventually to stamp out tuberculosis in Worcester.

Stillman Infirmary, Cambridge, Mass.—This new hospital, which was fully described in the *Philadelphia Medical Journal*, December 21, 1901, page 1065, was opened this week. Harvard College is at present maintaining the infirmary at its own expense, as the hospital has no endowment fund.

Contagious Hospital, Brookline, Mass.—The new contagious hospital was opened September 27, the erection of the buildings, which have already been described in the *Philadelphia Medical Journal*, August 9, 1902, page 174, having taken considerably over a year. The hospital is under the direction of the Brookline Board of Health. Outside of the land and general equipment, the hospital cost \$90,000.

Harvard Medical School.—Dr. Maurice H. Richardson, for many years assistant professor of clinical surgery, has been appointed associate professor of clinical surgery.

MISCELLANY.

Cholera in the Philippines.—It is announced that 5121 cases of cholera and 2740 deaths were reported in the province of Iloilo, Panay, September 29. This is the highest record for any district since the outbreak of the disease, and exceeds the total of Manila and many of the provinces. The town of Miago, in the province of Iloilo, reported 1,173 cases September 29. The people have fled to the mountains, leaving the dead unburied and the dying uncared for. For all the provinces, September 29, 5,390 cases, with 3,091 deaths were reported. Unofficial reports make the total 70,222 cases, with 48,402 deaths. The actual total of cases is estimated to be about 100,000. The Island of Samar has been practically depopulated on account of the ravages of cholera. The insular government has appropriated \$50,000 to fight the cholera in Iloilo.

Cholera in Egypt.—This disease has at last begun to disappear. Cairo, Luxor and Ramieh are almost free from cholera, and Assouan is entirely free from the disease. For the week ending October 4, 1800 new cases occurred with 1,782 deaths. Since July 15, over 36,000 cases, with over 30,000 deaths, have occurred.

Bubonic Plague in China.—The United States Consul at Canton reports that the people who live upon fish are first attacked by the plague. It has also been noted that those people die from it in the greatest numbers. The warfare against the rats in Manila has completely done away with the plague there. The disease, however, continues to rage in Hong Kong, Amoy and other Chinese ports.

Obituary.—Dr. Frederick C. Jackson, at Manila, October 1.—Dr. Horace B. Lackey, at Philadelphia, Pa., September 30, aged 58 years.—Dr. John Byrne, at Montreux, Switzerland, October 1, aged 77 years.—Dr. S. M. Wurtz, at Wailersville, Pa., September 29, aged 66 years.—Dr. Stanley, at St. Louis, Mo., October 5, aged 40 years.—Dr. J. A. Chandler, at Guinea, Va., October 2, aged 74 years.—Dr. Jesse H. Peek, at Hampton, Va., September 20, aged 47 years.—Dr. Rufus L. McElroy, at Portland, Ore., September 21.—Dr. Harry A. Bell, at Tucson, Ariz., September 21, aged 28 years.

GREAT BRITAIN, ETC.

Post-Graduate College, West London Hospital.—Professor Erb, of Heidelberg, delivered an address on syphilis of the spinal cord at the opening of the winter season, October 8. A dinner was given in his honor, later.

Edinburgh University Medical School.—Sir Conan Doyle, M. D., has presented to the University of Edinburgh, for its medical department, \$5,000, the balance of profit upon his pamphlet on the war and the conduct of the troops.

Vaccination in Bengal.—Between 1899 and 1901 inclusive, a great increase in the number of vaccinations performed has been noted. The primary vaccination of in-

ants, however, is still in an unsatisfactory state. On this account it is expected that a better system of birth registration and an increase in the number of vaccination stations will soon be made, especially among the smaller country towns. On an average, 1060 vaccinations were performed by each paid vaccinator, as compared with 944 by licensed agency. The more useful and telling work was done in small areas, where the vaccination was careful and complete. Nevertheless, the mortality from small-pox was greater during these 3 years than during any period of the last 10 years. The spread of the disease was attributed to the practice of exposing children to mild cases of the disease. The lieutenant-governor believes that the advantage of vaccination was recognized, and the opposition to it was based only on a reluctance to pay the fees.

Harveian Oration.—This address will be delivered by Dr. David Farrier, F. R. S., October 18, before the Royal College of Physicians, London.

Charing Cross Hospital.—Dr. W. H. Welch, professor of pathology at Johns Hopkins University, Baltimore, who delivered the Huxley lectures in London this year, also delivered an address at Charing Cross Hospital, October 4, on "Immunity." At the close of his address he was warmly complimented by Lord Lister. Many physicians, including some Americans, were present.

CONTINENTAL EUROPE.

Congress of German Naturalists and Physicians.—At the 74th. annual meeting, held at Carlsbad, Bohemia, September 21-27, Dr. Paul Moser, assistant physician at the St. Ann Children's Hospital, Vienna, announced the discovery of an antistreptococcic serum which has proved successful in many cases of scarlet fever. He has used it upon 400 patients in the past 2 years, the mortality falling to between 8% and 9% with its use. The Austrian government has appropriated a considerable amount in order that the serum may be made in large quantities and distributed to the hospitals for children in Vienna. Apart from this the Congress has not been exceptionally noteworthy. Dr. Winternitz believes he has found a new fungus which causes baldness. A paper on the healing qualities of yeast in various skin diseases caused much discussion.

University Notes.—**Berlin.**—Dr. Adolf Passow, professor of otology and director of the clinic at Heidelberg, has been appointed to similar positions, here, replacing Dr. Trautmann.—**Dr. Neumann** celebrated his 60th. anniversary as a physician, September 13.—**Copenhagen:** The new Serum Institute was opened September 9, Professor Karl J. Salomonsen delivering the opening address. A number of distinguished bacteriologists from the entire civilized world were present.—**Drs. C. Lorentzen and E. Ehlers** have received the title of professor.—**Dresden:** Dr. Martini celebrated his 60th. anniversary as a physician, September 10.—**Erlangen:** Dr. Wilhelm Butters has become chief surgeon in the surgical clinic.—**Greifswald:** Dr. Müller, formerly Dr. Curschmann's assistant, has become chief of the medical clinic.—**Innsbruck:** Dr. Rille has been appointed professor of dermatology and syphilography, replacing Dr. Riehl.—**Jena:** Dr. Ernst Hertel has been appointed professor of ophthalmology.—**Königsberg:** Dr. Franz Meschede, director of the psychiatric clinic, celebrated his 70th. birthday, September 6.—**Lausanne:** Dr. Casimir Strzyzowski has been appointed professor of medical chemistry.—**Saragossa:** Dr. O. Garcia has been appointed professor of pathology.—**Turin:** Dr. G. D'Urso has been appointed professor of surgical pathology.—**Vienna:** Dr. Basch recently celebrated the anniversary of 25 years as a professor. At the same time he celebrated his 65th. birthday.—**Warsaw:** Dr. Gendre has been appointed professor of physiology.

Obituary.—Dr. Alexander W. M. van Hasselt, for many years president of the Dutch Entomological Society, one of the oldest medical officers of the Dutch Army, died recently in Amsterdam, aged 88 years.—The deaths of the following are also announced: Dr. P. Delacour, director of the Rennes Medical School, formerly professor of clinical medicine, aged 76 years; Dr. Riant, honorary secretary of the French Medical Association, Paris; Dr. E. Teinturier, alienist and medical journalist, also of Paris, aged 63 years, and Dr. Adolfo Targioni-Tozzetti, emeritus professor of comparative anatomy, Florence, September 18, aged 79 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

September 20, 1902. (No. 2177.)

1. A Discussion on Beriberi. PATRICK MANSON, E. R. ROST, L. W. SAMBON, RONALD ROSS, C. W. DANIELS, JAMES CANTLIE, W. T. PROUT, P. A. NIGHTINGALE and WM. KYNSEY.
2. Enteric Fever in Sierra Leone — Not Yet Endemic? With a Note on a Case of Infection Three Months after Contact. F. SMITH.
3. The Climate and Diseases of Bangkok. P. A. NIGHTINGALE.
4. A Discussion on Dysentery. ANDREW DUNCAN, W. J. BUCHANAN, LEONARD ROGERS, PATRICK MANSON, W. G. ROCKWOOD, J. H. MUSSER, EDWARD HENDERSON, JAMES CANTLIE, TURNBULL and F. M. SANDWICH.
5. Sanitary Work in West Africa. M. LOGAN TAYLOR.
6. Heat Apoplexy. EDWARD HENDERSON.
7. The Prophylaxis of Sunstroke. ANDREW DUNCAN.
8. A Discussion on Yellow Fever. JAMES CANTLIE, G. C. LOW, PATRICK MANSON, L. W. SAMBON and W. T. PROUT.
9. Malta Fever. P. W. BASSETT-SMITH.
10. Malta Fever in the Canaries. BRIAN MELLAND.
11. The Geographical Distribution of Malta Fever; and the Value of Splenic Enlargement as a Test of Malarial Incidence. JAMES A. HISLOP.
12. Kala-azar as an Analogous Disease to Malta Fever. Preliminary Notes of an Investigation and Some Discoveries Regarding the Nature of the Condition known as Kala-azar. C. A. BENTLEY.
13. Filariasis in Sierra Leone. W. T. PROUT.
14. Note on a Trypanosoma Occurring in the Blood of Man. J. EVERETT DUTTON.

1.—Manson opened a discussion on beriberi in the Section of Tropical Diseases of the British Medical Association. Clinically, beriberi is a multiple peripheral neuritis. It has lately been suggested that many, if not all, of the cases are cases of arsenical poisoning, and the fact that traces of arsenic have been found in the hair of such patients is looked upon as evidence of the truth of the theory. Manson believes that beriberi is not arsenical neuritis. In making a differential diagnosis between beriberi and malarial neuritis, the marked susceptibility of patients suffering from the former disease to cardiac lesions and the impairment of memory in patients suffering from the latter disease are important points. He believes that beriberi is produced by a toxin, which is the product of a germ, operating in some culture medium, located outside the human body. He thinks that this toxin enters the body neither in food nor in water, but through the skin or the respiratory tract. Rost found a bacillus in rice water liquor and in mouldy rice, which was extremely resistant to high temperatures. He found this organism in the blood and in the cerebrospinal fluid of a large number of beriberi patients. When injected into fowls, the birds died with symptoms of neuritis, and the bacillus was found in their blood and in their spinal cords. An exactly similar disease was produced in fowls by feeding them on fermenting rice and on mouldy rice, by intraperitoneal injections of rice water liquor and by subcutaneous or intraperitoneal injections of the venous blood of beriberi patients. He believes that this bacillus is the cause of the disease. Sambon believes that rice may become a vehicle of the beriberi infection. He believes that all forms of multiple peripheral neuritis are due to a specific infection; but admits that it is quite possible that the administration of alcohol or arsenic may favor the development of the

micro-organism. In order to prevent the spread of the disease he suggests that men who have recently suffered from beriberi should not be allowed to join coolie gangs; that patients suffering from the disease should be isolated; that open wounds, ulcers and abrasions should be carefully cleansed and dressed in those who are obliged to associate with beriberi patients; and that the diet supplied to coolie gangs and to the inmates of collective dwellings should be varied and rich in nitrogenous ingredients. Ross reports the results of the analysis of 8 specimens of hair taken from beriberi patients. In the 3 most recent cases arsenic was found. So far, out of 29 cases examined, arsenic has been found in 9, and, of these 9, 8 were under one month's duration. Cantlie believes that beriberi is an infectious disease and not a disease arising from scanty food. He referred to the spread of beriberi in a hospital ward in Hongkong. Prout described an outbreak which occurred near Sierra Leone, from the study of which he concludes that Dr. Manson's theory is correct. Nightingale, in corroboration of the opinion that the disease is due to musty rice, described an outbreak of the disease in Bangkok. [J. M. S.]

3.—Bangkok has wet and dry seasons. In the wet season the rainfall varies to a considerable extent. The following diseases are prevalent: Malaria, dysentery, diarrhea, sprue, typhoid fever, cholera and renal disease. Up to within 18 months beriberi was almost unknown and dengue fever appeared for the first time in 1901. According to Nightingale, plague has not been introduced.

[J. M. S.]

4.—Duncan opened a discussion on **dysentery**. He believes that the name dysentery comprises a variety of diseases. In India the ameba has nothing to do with the disease as a causative agent, and in examining the stools of dysenteric patients he has as often found them absent as present. He believes that it is an eminently curable disease if treated from the first symptoms. Buchanan has had an experience of treating 1,130 cases of dysentery in a jail in India with only 9 deaths. From this experience he concludes that the dysentery of Indian prisons is probably almost entirely bacillary. Dysentery is also a seasonal disease, being especially common during and immediately after the rainy season. Frequently he has seen outbreaks of dysentery coincide with the eating of badly cleaned rice or wheat with some neglect in the supervision of the cooking. He also recognizes the communicability of the disease. The great aim in treating dysentery in an institution is to prevent relapses. This can be done by early recognition of the complaint and prompt, effectual and thorough treatment. In the treatment of the disease, he advises rest in bed and a diet consisting of curdled milk and a starchy solution of rice or sago or arrowroot. In the beginning of the disease there is no remedy that acts so rapidly, so painlessly and so effectually as sodium sulphate, which should be given in dram doses, in cinnamon or fennel water, 4, 5 or 6 times a day until bright yellow, soft, feculent stools are passed without a trace of blood, mucus or pain. Other drugs are useful in a lesser degree. Izal has no special value as a specific for dysentery. Rogers says that the statement that the natives of India rarely suffer from liver abscess is erroneous. From his observations he concludes that the ameba is constantly found in an active condition of the walls of the tropical abscess of the liver, although frequently absent from the pus in its cavity. The ameba is the only organism constantly found in such abscesses. Staphylococci and other pyogenic organisms are absent from the pus in the great majority of cases when the abscess is first opened. In cases in which a complete record is available, there is either a history of dysentery or the lesions of dysentery are found post mortem in over 90% of the cases. The form of bowel disease associated with large tropical abscess of the liver is amebic dysentery. Severe sloughing forms of catarrhal dysentery may be associated with small multiple pyemic abscesses, which is

a totally distinct condition from amebic abscess. Quinine solutions rapidly destroy the amebæ and may be used with advantage in washing out liver abscesses after they have been opened. Musser pointed out that bacillary dysentery is not exclusively tropical, as isolated cases occur in persons who have never been in the tropics, and because the bacillus of Shiga had been found in the stools of patients suffering from institution dysentery in the United States.

[J. M. S.]

6.—Henderson has never seen a native of Shanghai suffering from **heat apoplexy**, although he has heard of one case. The abuse of alcohol is a complication in the majority of cases. It may be, however, that we are making the same mistake in regard to heat that was formerly made in regard to cold in the causation of disease, and that heat apoplexy is really due to the action of a specific poison. Heart failure is the common cause of death in heat apoplexy and needs to be carefully guarded against. He never uses such drugs as antipyrine or its allies in the treatment of heat apoplexy, because he considers them positively dangerous. If a patient needed stimulation he would prefer brandy by the bowel to strychnine unless the patient had been positively under the influence of alcohol at the time of his attack. Of course, he uses cold bathing.

[J. M. S.]

7.—Duncan lines his hat and his coat with orange yellow material and wears a shirt of the same color to protect himself from **sunstroke**. Before adopting this method he had 4 attacks of sunstroke, and since the use of this colored lining he has not been affected by the sun. [J. M. S.]

8.—Cantlie refers to the work of the United States Army Yellow Fever Commission. He admits that the experiments of this commission prove conclusively that the virus of **yellow fever** is contained in the blood, that the specific agent found in the blood is destroyed or attenuated by exposure to a temperature of 55° C. for 10 minutes, and that, so far as we can now prove, yellow fever is not produced by bacteria in the blood. In the differential diagnosis of yellow fever and malignant malaria, Low says that it is of extreme importance to examine the blood. Mason criticised the experiments conducted by the United States Army Commission. [J. M. S.]

9.—In cases of **Malta fever** of short duration and moderate severity Bassett-Smith has found that the agglutinins are generally sustained high, and that they fall when normal health is established. In cases with acute clinical symptoms, having at first high agglutinins more or less regularly sustained, but generally falling as the fever passes off and debility becomes marked, the agglutinins rise again in convalescence. Cases with acute symptoms, in which the agglutinins are at first very low, rising more or less regularly as convalescence progresses, are severe throughout. Cases with acute relapses in which the agglutinins remain permanently low and in which debility and anemia are very great, often have to be finally invalided. Very chronic cases with protracted slight relapses or continued fever of a mild hectic type, in which from low agglutinins there is later a considerable increase, the patients ultimately make a good recovery. Very chronic cases with prolonged irregular fever, great anemia and debility, in which the agglutinins remain constantly low, have to be invalided out of the service. From the prognostic viewpoint high sustained agglutinins in the early stages of the fever are favorable. A continuation of low agglutinins during the whole course of the fever and following cachexia is bad; the cases dragging on for years with recurrent attacks of slight fever and neuroses so difficult to cure. A continuous rise of agglutinins with improving clinical symptoms indicates the approach of convalescence. As a rule, there is no relation of the agglutination curve to that of fever. The bactericidal power of the serum against the specific organism of Malta fever is very slight. The phagocytic properties of the leukocytes are diminished. In the weekly examinations of the blood,

its hydremic condition is very apparent; and, although there is no leukocytosis, there is a great relative preponderance of the mononuclear basophilic cells. [J. M. S.]

12.—Bently describes *kala-azar*. It is neither malarial fever nor any form of malarial cachexia, although it may be complicated by a coincident malarial infection. It is a distinct disease of which the first stage of irregularly intermittent, remittent or continued fever is followed by recurrences and then by nearly continuous fever of a low type. He believes that the disease is essentially *Malta fever*, although it may be complicated by malaria and dysentery. [J. M. S.]

14.—Dutton reports the case of an Englishman who was suffering from a disease characterized by a chronic course, general wasting and weakness, irregular temperature of an irregular relapsing type, local edema, congested areas on the skin, enlargement of the spleen and constant increased frequency of the pulse and respiration. The blood showed no very marked anemia; the erythrocytes numbered 3,850,000, and the leukocytes 12,000. A differential count of the leukocytes showed an increase of the lymphocytes. A parasite was found in the blood which belonged to the class of *trypanosoma*. [J. M. S.]

LANCET.

September 20, 1902.

1. An Address on the Present Position of Chemical Physiology. W. D. HALLIBURTON.
2. A Clinical Lecture on Acute Infantile Bronchopneumonia, Based on Clinical, Pathological and Hematological Phenomena Observed in Three Fatal Cases.

JOHN LINDSAY STEVEN.

3. Occlusion of the Lateral Sinus and Internal Jugular Vein, an Essential Part of the Method Employed by Nature, and by the Surgeon in Imitation of Nature, for Arrest of Acute General Infection Having its Origin Within the Temporal Bone.

CHARLES A. BALLANCE.

4. A Note on Albinism, With Especial Reference to Its Racial Characteristics Among Melanesians and Polynesians. C. G. SELIGMANN.
5. Persistent Hereditary Edema of the Lower Limbs. H. D. ROLLESTON.
6. Mucin and Malignancy; Facts and Theories. WILLIAM STUART-LOW.
7. The Cancer Problem. W. V. SHAW.

2.—Steven contributes a clinical lecture on *acute infantile bronchopneumonia* based on the clinical, pathological and hematological phenomena observed in 3 fatal cases. The first case occurred in a boy, 9 months old, who had caught cold on November 16, 1901. On the following day he had running at the nose, and the bowels were constipated. On November 19 the abdomen was swollen, cough was vigorous and diarrhea developed. The face was pallid and livid, the respiration shallow and rapid (80 to 94 per minute), and the temperature ranged between 103° and 104° F. At the right apex physical signs of consolidation were present, and at the right base marked dullness existed. At the right base, posteriorly, the respiratory murmur was harsh, and there were crackling rales. Percussion over the left lung was generally resonant. The blood examination of this patient showed a well-marked leukocytosis. He died on November 20, 1901. The second case occurred in a boy, 15 months old. His illness began on November 30, 1901, followed by a cough which had been present for some time. The appetite became impaired, constipation developed; cough was frequent and high fever developed, and the pulse-rate was very high. The maximum rate was 170, the minimum rate 132 per minute; the respirations averaged about 36. The physical signs of areas of consolidation existed over both lungs, but were largely confined to the right side. In this case a well-marked leukocytosis was found, and the differential count showed an increase in the percentage of lymphocytes. The patient died on December 6, 1901. The third case occurred in a child, one year and 10 months old. The illness of bronchopneumonia was preceded 2 months previously by measles. Two weeks before the onset of the illness cough was present. On December

6 the patient had a very severe cough and the respiratory rate was rapid. She was very thirsty, refused food and had a very high fever. On November 8 the diagnosis of bronchopneumonia was made. In this case a very marked leukocytosis existed. On December 12, the day previous to her death, the blood examination showed hemoglobin 80%, erythrocytes, 4,800,000 per cmm., white corpuscles, 236,000 per cmm. [F. J. K.]

3.—In discussing *thrombosis of the lateral sinus*, Ballance states that before or during operation the surgeon should decide whether his patient is suffering from an acute systemic infection or from a systemic disturbance depending upon a local process. Operation upon the vein should be done: (1) In acute pyemia and acute septicemia, whether the sinus is occupied by a clot or by fluid blood; (2) if the sinus is gangrenous or its contents are putrefying, unless it is quite clear that the sinus is blocked on both sides by noninfected clot, and this is rare; (3) if it is known or suspected that the blood in the jugular bulb is in part or wholly clotted; and (4) if the jugular vein is thrombosed. When it has been decided to deal with the vein before beginning to operate, the operation on the vein should precede that on the temporal bone. Ablation of the vein is better than ligature. After dealing with the vein the sinus should be thoroughly exposed for a distance of at least $\frac{3}{4}$ inch beyond the area of inflammatory change. The freest exposure of the sinus is required. The method of curetting away putrefying clot through an opening in the sinus is one which should be abolished from surgery. The sinus should be slit up, if necessary, from torcula to bulb. The cases demanding operation and the procedure to be carried out in each particular case require the greatest surgical judgment. The surgical treatment should be the same whether the condition is chronic or acute. [J. H. G.]

4.—Seligmann contributes a note on *albinism*, with especial reference to its racial characteristics among Melanesians and Polynesians. His study was made while in New Guinea in 1898, as a member of the Cambridge Anthropological Expedition. He mentions that nystagmus and jerky movements of the eyes were absent in all of the cases of albinism which he saw in New Guinea, and he also found marked visual acuity in all Melanesian albinos. As in other races, albinism among Melanesians occurs in certain families and groups of families. In this article he gives a detailed description of a number of albinos. The article is illustrated. He also refers to partial albinism which he observed. [F. J. K.]

5.—Rolleston writes on *persistent hereditary edema of the lower limbs*. Under his care in St. George's Hospital he observed a peculiar form of edema of the legs in a brother and sister which was permanent as long as they led an ordinary life; after exercise it increased, but disappeared after rest in bed for some days. He gives a detailed account of these 2 cases and suggests that the persistent tendency to edema from gravitation depends on some inherent effect or peculiarity of the small bloodvessels which allows excessive transudation to occur on very slight provocation. [F. J. K.]

6.—Stuart-Low discusses *mucin and malignancy*; facts and theories. To his article is appended a table of 15 cases of malignant disease, in all of which he found hypomyxia to a varying extent. Most of these were instances of lessened mucous secretion of the alimentary and upper respiratory tract, and he is inclined to believe that there is a connection between the malignant state and the hypomyxiatous, the latter being the forerunner of the former. In all of the cases which came under his observation he prescribed mucin, and improvement was noticed in each instance. [F. J. K.]

MEDICAL NEWS.

October 4, 1902. (Vol. 81, No. 14.)

1. Wandering Kidney, and the Results of Operation. CLARENCE A. McWILLIAMS.
2. The Nervous Manifestations of Movable Kidney. A. L. BENEDICT.
3. The Modern Treatment of the More Common Traumatic Injuries of the Eye. CHARLES J. KIPP.
4. Success in Practice. CHARLES E. NAMMACK.
5. Sterility in the Female and Its Curability. S. L. KISTLER.

6. A Case of Chronic Lymphatic Leukemia, Accompanied With Lymphosarcoma, or Myeloma, of the Sternum and Ribs. CHARLES F. CRAIG.

1.—McWilliams mentions the great frequency of the above condition and gives the percentage as follows: Kuster found it in 4.41% of his cases; Goelet and Edebohl, each, 20%; Harris, 56%; Beyer, 15%; Glenard found it in 537 cases out of 4,215 patients. It must be differentiated from: (1) Distended gall-bladder; (2) new growths in the abdomen, particularly ascending colon tumors; (3) cancer of the pylorus; (4) impacted feces; (5) cyst of the pancreas; (6) ovarian tumors; (7) other kidney affections; (8) "Riedel's," or "tight-laced" lobe of the liver. [T. M. T.]

3.—Kipp, in conclusion, says that, as traumatic injuries to the eye are not infrequently the cause of litigation for damages, it is of great importance that the surgeon, into whose hands the case first falls, should not only make a thorough examination of the injured eye, but also ascertain the exact condition of the noninjured one at the time when the patient is first seen. His memory may not always be relied upon, and it is in the interest of all parties concerned that he should keep a complete record of the case from beginning to end. If practicable he should note the exact amount of vision in each eye, when examined separately, and all peculiarities he may observe in the noninjured eye, as defects in this eye may be subsequently attributed to the injury of the other eye. [T. M. T.]

5.—Kistler states that: (1) The great majority of cases are dependent upon slight causes; (2) the great number of cases are curable; (3) many apparently hopeless cases are curable; (4) length of time a case has persisted is no bar to treatment, providing organic change has not obtained which precludes possibility of cure; (5) treatment used must always depend upon the case in hand. [T. M. T.]

MEDICAL RECORD.

October 4, 1902.

1. The Postoperative History of Fifty Cases of Simple Chronic Glaucoma. CHARLES STEDMAN BULL.
2. Medical Reciprocity, or Interstate Exchange of Licenses. B. D. HARISON.
3. Epidemic Poliomyelitis, with a Report of Ten Cases. D. H. MacKENZIE.
4. Discussion of the Report on Yellow Fever on the U. S. Ship "Plymouth" in 1878 and 1879. W. C. GORGAS.
5. Some Clinical and Operative Phases of Appendicitis. A. H. CORDIER.
6. Traumatic Injuries of the Liver. J. L. WIGGINS.

1.—Bull gives a summary of the postoperative history of 50 cases of simple chronic glaucoma. In 7 cases, under observation for a period varying from 15 months to 11 years, the fields remained as they were at the time of operation. In 6 of these 7 cases the vision grew slowly worse and in one case the vision was somewhat improved. In 5 cases the vision remained as it was at the time of operation, or improved while the fields grew narrower. Age, in itself, did not seem to exercise any definitely bad effect, for some of the most satisfactory results occurred in patients over 70 years of age. The best results as to ultimate vision occurred in the cases in which the central vision was the best and the fields were the least encroached upon at the time of operation, or, in other words, as soon as the existence of the disease was definitely established. A careful study of these cases has lead Bull to the conclusion that, when the disease undoubtedly exists in both eyes of a patient, better results as to visual acuity and the field of vision are obtained by a simultaneous operation on the 2 eyes. The curative action of iridectomy stands in direct proportion to the increase of tension. Done early, it offers the best prospects for the arrest of the process and its effects are either permanent or very prolonged. [T. L. C.]

2.—Harison discusses the interstate exchange of licenses. He presents an extended review of the progress made toward the attainment of this object in the various states and discusses the reciprocity resolution passed at a meeting of Michigan State Board of Registration in Medicine, June 11, 1902. [T. L. C.]

3.—MacKenzie reports 10 cases of epidemic poliomyelitis. The epidemic which he describes occurred in Dutchess county, New York, in 1899. Thirty cases in all were re-

corded, and the 10 which MacKenzie now reports came under his own personal observation. From the fact that most of the patients were adults, from the pain, tenderness and paresthesia, the early symptoms and the fact that the paralysis extended from below upward, and also that all the cases which did not prove fatal in the acute stage, except 2, fully recovered, he concludes that most of these cases were probably multiple neuritis. [T. L. C.]

6.—Wiggins discusses traumatic injuries of the liver with the report of a case. He advises immediate operation in such cases irrespective of the degree of shock. No method of suturing can be entirely satisfactory. The use of any sealing material, with the possible exception of the actual cautery, is not warranted. The best results follow drainage by the most direct route. [T. L. C.]

NEW YORK MEDICAL JOURNAL.

October 4, 1902.

1. Rotation in Lateral Curvature: A Reply to Dr. Judson. ROBERT W. LOVETT.
2. A Method of Circumcision. WALTER C. KLOTZ.
3. A Case of Keloid. H. TAYLOR.
4. Complications in the Passage of a Gall-Stone. NEIL MACPHATTER.
5. Current Differentiation, Illustrated by a Case of Peripheral Neuritis, Due to Parenchymatous Degeneration of the Cord. A. D. ROCKWELL.
6. Further Remarks on Insufficiencia Pylori as a Sequela of Chronic Gastritis; with Report of Fourteen More Cases, Treated Successfully. MARK I. KNAPP.
7. Beatson's Cure of "Inoperable" Cases of Mammary Cancer. JENNIE G. DRENNAN.
8. Mastoid Disease in Infants, Two Cases; in Adults, Two Cases; The Latter Complicated with Erysipelas. W. PEYRE PORCHER.

1.—In his reply to Dr. Judson's article in the *Journal of the American Medical Association*, February 22, 1902, Lovett repeats in detail his experiments on the mechanics of lateral curvature, using a strip of sponge rubber with a number of pins. The rubber strip was held by a clamp in the middle, its ends being connected by a thread. A series of photographs explain the mechanism of lateral curvature. [M. O.]

2.—Klotz describes his method of circumcision by removing a cuff-shaped flap of skin, leaving intact the areolar tissue. The technique of the operation follows with diagrams. [M. O.]

3.—Taylor reports a case of keloid occurring in a man of 21, 6 weeks after a scald of the abdomen. A photograph of the keloid accompanies the article. It was completely removed by operation, but was followed shortly by a recurrence. A discussion of the condition follows. [M. O.]

4.—In about two-thirds of the cases of gall-stones the condition remains uncomplicated. Among the commoner complications, however, which do occur, are impaction of the gall-stones, cholangitis, cholecystitis, empyema of the gall-bladder, calculous hepatitis, ulceration of the gall-bladder and biliary ducts, hemorrhage into the biliary passages, liver or abdomen, perforation of the gall-bladder or bile-ducts, stricture of the gall-bladder or bile-ducts, local or general peritonitis, inflammatory adhesions about the gall-bladder, many varieties of biliary fistulæ, affections of the portal vein and intestinal obstruction. Macphatter's article is comprehensive, including a description of each of the above mentioned complications, their etiology and treatment. [M. O.]

5.—Rockwell describes a case of peripheral neuritis due to parenchymatous degeneration of the cord. The course, distribution and pathology of this case are somewhat unusual. In the treatment, while both static electricity and the faradaic current were without the slightest effect, the use of the galvanic current was followed by marked improvement. This was due to the peculiar electrotonic properties of galvanization. The case-history is given in full. [M. O.]

6.—Knapp reports 14 cases of pyloric insufficiency fol-

following chronic gastritis. After describing the various symptoms of the condition, Knapp gives the treatment which has proved successful in his cases. He uses alkaline drugs at the right moment, with rhubarb or quinine. HCl, nuxvomica, etc. For constipation he uses strychnine in rather large doses. Besides, diet is most important. In most cases the stomach was aspirated at some time. With these cases Knapp has reported 26 cases of pyloric insufficiency successfully treated. [M. O.]

8.—Porcher reports 4 cases of mastoid disease, 2 in infants and 2 in adults, all of the patients recovering after operation. The infants were 6 and 8 months old. The cases in adults were both complicated with erysipeles.

[M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

October 2, 1902. (Vol. CXLYII, No. 14.)

1. Contagious Conjunctivitis. MYLES STANDISH.
2. The Simplification of the Treatment of Lateral Curvature. E. H. BRADFORD.
3. Sensory Hallucination and Its Analogues.

ROBERT MacDOUGALL.

2.—Bradford says that the practitioner needs to consider in this condition: (1) Measures to promote flexibility in a localized position of the spine. Means for the greatest possible rectification of curves. (2) Gymnastic exercises for the development of such muscles as may be needed in given cases, to maintain a corrected attitude. (3) Appliances presenting faulty positions of the spine. (4) Means of recording the condition and progress in cases. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

October 4, 1902.

1. The Surgical Aspects of Pancreatitis. WILLIAM J. MAYO.
2. Obstruction of the Bowels From Meckel's Diverticulum. JAMES E. MOORE.
3. Anatomy for the Practitioner. CLARENCE M. JACKSON.
4. Acquired Nonmalignant Stricture of the Rectum; Causes, Symptoms and Treatment. W. DUFF BULLARD.
5. Pathology of Uveitis. WILLIAM H. WILDER.
6. The Treatment of Certain Nonseptic Lesions of the Uveal Tract With Pilocarpine and Sweat-Baths. THOMAS A. WOODRUFF.
7. The Treatment of Uveitis. WILBUR B. MARPLE.
8. A New Scheme of Zones and Centers of the Human Cerebrum, With Remarks on Cerebral Localization, Especially With Reference to the Osteoplastic Operations and Brain Tumors. CHARLES K. MILLS.
9. Etiology of Chronic Nephritis. ARTHUR R. ELLIOTT.
10. The Classification of Chronic Nephritis. JAMES B. HERRICK.
11. Open-Air Treatment of Tuberculosis; Tent Life in Arizona. R. W. CRAIG.

1.—See Philadelphia Medical Journal, June 21, 1902, page 1102.

2.—See Philadelphia Medical Journal, June 21, 1902, page 1102.

3.—See Philadelphia Medical Journal, June 21, 1902, page 1103.

4.—See Philadelphia Medical Journal, June 21, 1902, page 1103.

5.—Wilder discusses the pathology of uveitis. He considers particularly lesions of the choroid. He refers in this article to 2 forms of choroiditis—the suppurative and the plastic. He also gives brief histories of 2 cases. [F. J. K.]

6.—Woodruff calls attention to the treatment of certain nonspecific lesions of the uveal tract with pilocarpine and sweat-baths. He describes the technique of the sweat-baths and points out that in choroiditis, particularly in the exudative variety, he has found pilocarpine sweats very useful in the early stages before there is any involvement of the retinal elements and before the choroidal pigment has become absorbed. When choroidal atrophy has set in, little improvement of vision can be expected from this plan

of treatment, but even in such cases further progress of the disease may be checked and the patient retain useful vision. He has also found pilocarpine of advantage in the treatment of vitreous opacities. [F. J. K.]

7.—Marple considers the treatment of uveitis. He summarizes as follows: (1) That the etiology of the ocular inflammation is to be investigated in order to obtain some general therapeutic indication. (2) That in general in acute processes of specific origin mercury, best by inunctions, is indicated, aided, if necessary for the absorption of exudates, by iodides. (3) That mercurials are often of service, even when there is no specific cause demonstrable, but that here oftentimes salicylates accomplish more than the iodides. (4) That atropine is pretty generally indicated, aided, if necessary, in severe inflammations, by moist heat and diaphoresis. (5) That subconjunctival injections either of sublimate or sodium chloride may sometimes be tried. They can do no harm, though, it is not yet certain how much good they accomplish or just what are their indications. [F. J. K.]

8.—See Philadelphia Medical Journal, June 21, 1902, page 1119.

9.—See Philadelphia Medical Journal, June 21, 1902, page 1094.

10.—See Philadelphia Medical Journal, June 21, 1902, page 1094.

11.—Craig discusses the open-air treatment of tuberculosis. He refers to the question of early diagnosis, points out that this is of supreme importance and remarks that there is no reason why pulmonary tuberculosis should not be recognized in the prebacillary stage and before a cough has developed. The real success of the treatment of tuberculosis depends upon the early recognition of the disease. He refers to the climate most suitable for tuberculous subjects. In Arizona there is a maximum amount of sunshine, the humidity is very low, and the temperature is sufficiently high, so that the patients can live out of doors or in house tents the entire year. He concludes his article by referring to the importance of tent life. He mentions that the best results obtained in treating pulmonary tuberculosis in Arizona, particularly in the region surrounding Phoenix, have been by what is practically an outdoor existence on the desert in the foot-hills which extend to within 6 miles of Phoenix. The patient should have a good tent house located a few hundred yards from some ranch house.

[F. J. K.]

AMERICAN MEDICINE.

October 4, 1902.

1. The Pathologic Relations of the White Bloodcorpuscles; a Case of Hodgkin's Disease of Tuberculous Origin; a Case of Lymphatic Leukemia. O. T. OSBORNE.
2. Extirpation of the Gall-bladder Through the Lumbar Incision, With Report of a Case. W. P. MANTON.
3. Old Compound Partial Outward Dislocation of the Elbow, and Resection. MARTIN B. TINKER.
4. Medical Treatment of Pulmonary Tuberculosis. JESSE SHOUP.
5. An Analysis of Fifty-five Cases of Diphtheria. HENRY G. GODFREY.
6. The Rectal Approach in Obstetrics. W. A. BRIGGS.
7. A Study of the Bacterial Flora of the Intestinal Mucosa of the Normal Rabbit. MARGUERITE J. BULLARD.
8. The Ward Clinic. JAMES B. HERRICK.
9. Medical Practice in Cairo, and Prevailing Diseases of Egypt. NICHOLAS SENN.

1.—Osborne discusses the relation of the white bloodcorpuscles in health and disease. He presents the notes of a case of Hodgkin's disease of tuberculous origin, and a case of lymphatic leukemia. In the treatment of the latter condition Osborne states that arsenic, alkalis and nucleic acid reduce the size of the glands and spleen, but cause destruction of the red cells. Nucleic acid alone seemed to reduce positively the number of the white cells. The red cells in the general condition always and constantly improved under the administration of red bone marrow.

[T. L. C.]

3.—Tinker adds 2 cases to the 13 already reported, of partial outward dislocation of the elbow joint. This condition experimentally produced on the cadaver is also considered. [T. L. C.]

4.—Shoup discusses the medical treatment of pulmonary

tuberculosis under 3 heads: (1) Those drugs which promote that metamorphosis which results in healthy tissue construction; (2) those drugs which are bactericidal and, being eliminated by the lungs, come as near as it is possible to attacking the disease at its site; (3) that class of drugs which stimulate phagocytosis. [T. L. C.]

5.—Godfrey presents an analysis of 55 cases of diphtheria observed at the Girard College Infirmary. The average age of the patients was 10½ years. The persistence in the throat of the diphtheria bacillus in one case was 37 days; the average period was 13 days. [T. L. C.]

6.—Briggs presents a note emphasizing the advantage of diagnosis by per rectum in obstetric cases. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

July 3, 1902.

1. The Preparation of a Specifically Acting Substance From Typhoid Bacilli. L. BRIEGER.
2. The Specific Action in the Animal Organism of the Substance Prepared From Typhoid Bacilli.

A. SCHUETZE.

3. The Disappearance of Liver Dulness in Meteorism.

A. OPPENHEIM.

4. My Method of Operating in Chronic Empyema of the Antrum of Highmore. GERBER.

5. The Method of Demonstrating the Lymph Passages. POLANO.

6. The Development of the Biological Method for Differentiating Human From Animal Albumin by Means of Precipitins

A. WASSERMANN and A. SCHUETZE.

7. Concerning Acid-Fast Bacteria. (Conclusion).

A. MOELLER.

1.—Pure ammonium sulphate is neutralized with ammonium bicarbonate and a little ammonium carbonate; and a living typhoid culture is poured upon the surface, shaken and kept in the dark. The masses of bacteria are filtered off and shaken in water. The bacteria are again filtered off and the fluid is twice filtered through a Pukall filter. The fluid contains a substance which, when injected into an animal organism, causes the production of large amounts of agglutinin. [D. L. E.]

2.—Schütze's study of the substance mentioned in the last article shows that its injection into animals causes the development of a marked agglutinative power of the bloodserum, the agglutination becoming so great that it occurs in a dilution as marked as 1:1000. It seems to have absolutely no effect in the production of immunity and this apparently demonstrates that the agglutinating and the immunizing substances produced by typhoid infection are different. The substance does seem to cause some production of precipitins. [D. L. E.]

3.—Oppenheim states that the inflation of the large intestine of 3 normal women caused the liver dulness practically to disappear. The border of dulness at the lower edge of the lung, behind, rose decidedly higher. The disappearance of the liver dulness was not due to that organ's becoming covered by intestines, but to its being twisted upon its axis by the intestine, the turning occurring upward and backward. The liver dulness may disappear even with only a local meteorism. When so large an organ as the liver turns on its axis and cannot move backward, because of its fixation, it is natural that it should compress or push aside the lungs—a fact of importance in the diagnosis between thoracic and abdominal conditions. The author also introduced a stomach tube into a cadaver and distended that organ under marked pressure. The body was then injected with formol and left for weeks to harden. There was, in this case, marked distension everywhere excepting just under the sternum. The liver dulness was present. The stomach and large intestines showed a natural degree of distension, while the small intestine was greatly distended. Distension of the small intestine, therefore, causes no torsion of the liver and no change in the position of the diaphragm. [D. L. E.]

4.—The method recommended is to make a wide opening from the canine fossa; from here, to clear out the antrum completely; then to resect the wall between the nose and the antrum in the middle fossa; to drain through the latter opening; and to cover over the opening in the canine fossa with mucous membrane. [D. L. E.]

5.—Polano has improved Gerota's method for demon-

strating lymph passages by substituting an ether-camphor solution for turpentine oil. Ether is added to dry-pulverized camphor until it forms a homogeneous mass. Prussian blue or alcanna red is rubbed in, ether is added, and the mixture is filtered. Upon injection of this, the ether-vapor distends the lymph passages slightly. This makes it easier for the fluid to enter them, and the dry camphor forms a more or less thin layer about the circumference of the lymph spaces. The preparations are made in celloidin mounting, the fixation being carried out as desired.

[D. L. E.]

6.—A priority contest, in which the authors insist that they were the first to demonstrate the possibility of differentiating human from animal albumins. They do not mention the name of Uhlenhuth. [D. L. E.]

7.—Moeller states that he has found pseudotubercle bacilli in the pearl disease of cattle. He also reports some results obtained from the injection of tubercle bacilli and pseudotubercle bacilli into calves, and reaches the conclusion that the results produced by the injection of the human tubercle bacillus into calves are the same as those obtained by using the pseudotubercle bacillus. He believes that the human bacillus alone cannot produce pearl disease, nor can the pseudobacillus alone. The human bacillus contained in butter causes the same symptoms as the pseudobacillus contained in butter. The author considers that the cause of animal tuberculosis is closely related to the cause of human tuberculosis, but that the two are really different. The most closely related is the bacillus of bovine tuberculosis. [D. L. E.]

July 10, 1902.

1. The Operative Treatment of Perityphlitis. RINNE.
2. The Changes of the Purin Bodies in the Organism. O. MINKOWSKI.
3. Concerning the Electrical Conductivity of Human Blood-Serum in Uremia. A. BICKEL.
4. A Contribution to the Etiology of Blackwater Fever. R. RUGE.
5. A Contribution Concerning Malaria and Blackwater Fever. C. W. SCHLAYER.
6. Malaria and Carcinoma. J. GOLDSCHMIDT.

1.—Rinne states that until recently he has been a supporter of the conservative treatment of perityphlitis. He has now reached the view that cases that present mild symptoms should be treated conservatively, while those in which the symptoms are severe and in which one suspects pus should be operated upon at once. [D. L. E.]

2.—Minkowski admits that Nicolaier is right in his statement that the deposits found in the kidney after the use of adenine are 6-Amino-2.8. dioxypurin. He considers that this indicates the importance of his results, however, rather than the contrary; for nucleic acid contains adenine, and yet when given as such it does not furnish 6-Amino-2.8. dioxypurin. This suggests that it is probable that the purin bodies undergo different changes under different circumstances, and it strongly suggests that the conditions in gout, in relation to uric acid and other purin bodies, are different from those in other diseases in which there are known alterations in the metabolism of these substances. For instance, it is not improbable that there is some substance present in leukemia that keeps uric acid in solution; while the same is not true in gout, or there is something that causes precipitation of uric acid in that disease. It is also probable that there is something in the nuclein itself which causes solution of the uric acid. Nucleic acid and nuclein-containing foods carry with them large amounts of purin bodies, and, hence, increase the uric acid. They cannot, therefore, be used in experiments of this kind. The author has attempted to determine the effects of a base-free nucleotolphosphoric acid, using a so-called base-free thymic acid. This caused an increased excretion of uric acid and perhaps a decrease in the gouty nodules. It is not impossible, however, that this was a mere coincidence, or that the substance actually contained purin bases. The subject needs further study. [D. L. E.]

3.—Bickel presents a study of the freezing-point and the electrical conductivity in a case of uremia and states that, as he has previously shown in bilateral extirpation of the kidney in animals, there is a marked increase in the total molecular concentration of the bloodserum, which is not necessarily accompanied by an abnormal increase in

dissolved electrolytes, as reckoned by the values found in the electrical conductivity. [D. L. E.]

4.—Ruge reports a case of blackwater fever, directing particular attention to the alterations in the blood. There was a remarkable chromatophilia of the red cells, and numerous macrocytes, microcytes and shadow cells. An attack of blackwater fever was produced by 5 grains of quinine. It was notable that the patient had not had malaria before, although he had been in a malarial region in Africa. Every 5 days he had taken $7\frac{1}{2}$ grains of quinine. This had not been sufficient to prevent malaria or to prevent blackwater fever when the attack came. Quinine by rectum was well borne and produced a cure of the attack. It is possible that an examination of the blood may show danger of the resurgence of blackwater fever.

[D. L. E.]

5.—A case of blackwater fever is reported. In the beginning there was a distinctly tertian type of malarial infection, and later it assumed the tropical form. The hemoglobinuria appeared only a few days after the onset of the malaria. This patient had not had quinine, but had had phenacetine, and it is probable that the latter caused the attack. Schlayer believes that any one of the large group of substances that have a tendency to destroy the red corpuscles, may produce an attack, and that the latter is really due to the destruction of these red corpuscles, which, owing to the disease, have already been made less resistant and are more readily broken down. This is made more probable by the fact that after an attack of blackwater fever a renewed dose of quinine is not likely to produce a second attack, all the bloodcorpuscles subject to ready destruction having been destroyed by the preceding attack. [D. L. E.]

6.—Goldschmidt states that in Madeira malaria is extremely uncommon, and that carcinoma is uncommon also. He thinks that this fact speaks against there being any relation between these two conditions. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

July 8, 1902.

1. The Widal Serum Reaction in Weil's Disease. T. ECKARDT.
2. Intention Spasm of the Speech; The So-Called Aphthongy. H. STEINERT.
3. Morphine as a Narcotic. B. KORFF.
4. The Physiological Function of Tumors. E. ALBRECHT.
5. The Itching Eruption of Childhood. F. SIEBERT.
6. The Question of the Identity of Human and Bovine Tuberculosis. DISSELHORST.
7. The Nature of the Regressive and Productive Tissue Changes that Lead to Cure, That Occur as a Result of the Influence of Finsen's Light Treatment, in Lupus, Rodent Ulcer and Naevus Vasculosus Planus. A. SACK.
8. The Clinical Significance of Mobile Retroflexion of the Uterus. E. WORMSER.
9. Laryngeal Tuberculosis. H. NAUMANN.
10. Reply to Dr. Büdingen: "The Measure of the Intrathoracic Pressure and a New Lung Test." PLACZEK.
11. The Study and Calling of the Physician: An Address to the Students Upon Assuming the Charge of the Medical Clinic in Greifswald. F. MORITZ.

1.—Eckardt reports a case of Weil's disease occurring in a butcher, 22 years of age, who presented the typical symptom complex with epistaxis, hemorrhagic nephritis, pains in the calves and jaundice. There were several other cases of Weil's disease among his friends. There was slight elevation of temperature after he was admitted to the hospital. The Widal test was positive in dilutions of 1 to 100, and even in 1 to 1000 after 2 hours, and this observation was repeated several times. The blood of a second patient that had been treated in another clinic was also tested with positive results in a dilution of 1 to 1000. As icterus is a very rare complication, of typhoid fever, it seemed unlikely that this was a case of typhoid fever. It has been noted that the blood of patients suffering from jaundice agglutinates the typhoid bacillus. On the other hand, Weil's disease always occurs where typhoid fever is endemic and Weil himself recognizes the possibility that the 2 diseases are due to the same cause. The fact that the

intestinal ulcerations are not found in Weil's disease is no proof that it is not due to typhoid infection. [J. S.]

2.—Steinert reports the case of a man, 44 years of age, who developed a peculiar form of stammering as a result of great anxiety about his social condition. This always disappeared as soon as his mind was relieved. His memory became impaired and he once had an attack of weeping. The patient had, from time to time, clonic convulsions of the whole body, and on one occasion he had transient hypesthesia in the right half of the face. The peculiar feature was the disturbance of speech. Whenever he attempted to speak he was unable to produce a sound, but for a time his face worked in a curious way, the muscles of articulation going into a state of cramp. This case belongs to the group of intention spasms, and probably to the group of occupation neuroses, the hysteria being merely an associated condition. [J. S.]

3.—Korff has operated upon 130 cases with scopalmin morphine narcosis, without any disagreeable results. Apparently it was less useful in thyroid operations than in others. The method of employment is as follows. Four hours before the operation 0.1 gm. of morphine and .002 of scopalamin are injected; 2 hours later a second injection is made and half an hour before the operation a third injection. In some cases, as in herniotomies, the first injection is made 2 hours before the operation and the second half an hour before. The only point to be especially observed is paralysis of the tongue which may interfere with respiration. In one case there was some weakness of the heart after the first injection. This was combated by injections of camphor and the patient subsequently supported the other 2 injections without trouble. He gives the case-histories of a number of patients operated upon in this manner. [J. S.]

4.—Albrecht mentions an interesting case of endothelioma of the dura in which he found groups of nucleated red bloodcells. This tumor had given metastasis and represented a group which act injuriously to the organism as a whole, and nevertheless, form red bloodcells. He believes that further studies will show that certain functional activities persist in malignant tumors. [J. S.]

5.—Siebert believes that the urticaria-like eruptions of childhood have been too much neglected. The eruptions occur in various parts of the body, in the form of maculae of various sizes up to that of a pea which are dark red in color, and occasionally large wheals appear as well as bright red papules. Rarely nodules are found. A herpetic eruption sometimes occurs, particularly upon the soles of the feet. Various forms may occur at once. The course is usually irregular; the duration is various, the cause is not known, but usually these eruptions occur from the first year to the third year. Usually rapid relief is obtained by powders, mopping with alcohol or acetic acid washes. Occasionally Wilkinson's salve is of value. Often change of habit of life and of diet may be of value. Internally ichthyol, ichthalbin, ferriichthyol and arsenic may be valuable. [J. S.]

6.—Dissehorst criticises the results obtained by Koch and Schütz with reference to the essential difference of human and bovine tuberculosis. He calls attention to the fact that the tuberculous material obtained from human beings varies considerably in virulence. He also calls attention to the fact that other investigators have not obtained the same results. [J. S.]

7.—Sack, as a result of his studies, has found that the first point of attack of the therapeutic light-rays is the bloodvessels. This is best shown in uncomplicated angioma of the skin. The process does not consist in burning or cauterizing the skin, because none of the histological changes resemble either of these processes. Certain cells only are acted upon, and the process resembles microbiosis. Cells which are not hopelessly diseased are capable of undergoing a retrogressive metamorphosis under the influence of the light, therefore, the light-rays must be regarded as a sort of physiological irritation. [J. S.]

8.—Wormser continues his discussion of the significance of mobile retroflexion of the uterus. He mentions several cases in which after uselessly correcting the retroflexion the patients recovered entirely upon treatment for neurasthenia. He believes, therefore, that uncomplicated mobile retroflexion causes no discomfort in healthy women

and consequently does not need treatment. The symptoms of which women with these retroflexions complain are either due to complications or to some disturbance of the nervous system. The retroflexion itself is not the active cause and therefore all treatment should be directed to the actual diseased condition. [J. S.]

9.—Naumann insists that probably a large percentage of cases of tuberculosis of the larynx undergo complete cure without any active treatment, with the exception of the prohibition of speech. This silent cure may often with advantage be associated with active treatment of the larynx. [J. S.]

11.—Moritz declares that in the education of the physician it is necessary to have a thorough knowledge of physics and chemistry. The practical part of medicine is the knowledge of special pathology and therapeutics. Much of this is empirical and can be learned by demonstrations, which are given particularly in clinics. In addition it is necessary to influence the mind of the patient. The best recreation for the physician is interest in the purely scientific part of medicine. [J. S.]

July 15, 1902. (No. 28.)

1. Autolytic Processes in Exudates. F. UMBER.
2. The Serum Diagnosis of Tuberculosis.
F. von GEBHARDT and A. TORDAY.
3. The Specific Treatment of Tuberculosis. HAGER.
4. A Diphtheria Antitoxin Free from Albumin.
PROESCHER.
5. Cystoscopic Experiences. B. GOLDBERG.
6. The Curative Processes in the Operative Treatment of
Peritoneal and Renal Tuberculosis.
WEISSWANGE.
7. Severe Hemorrhage and Anemia Caused by the Pro-
lapse of a Rectal Polyp in a Ten-Year-Old Boy.
ARONHEIM.
8. The Physiological Function of Tumors. ALBRECHT.
9. Experiences in Accident and Invalid Insurance.
PETERS.

1.—Umbert has studied the changes that take place in exudates collected with all precautions to avoid contamination and kept in an incubator after the addition of toluol, for several days. The results showed that a certain proportion of the albumin was gradually transformed into ammonia, proving an autodigestion with the exudate liquid. In addition some of the albumin was transformed into bodies not coagulated by heat. [J. S.]

2.—von Gebhardt and Torday have performed a series of experiments with the bloodserum of 176 persons and a homogeneous culture of the tubercle bacillus obtained from Arloing. In 75 of these cases tuberculosis could be recognized clinically and in those the reaction was positive 56 times, negative 19 times. In 96 cases tuberculosis could be excluded. In 35 the results were positive and in 61 negative. In 5 apparently healthy persons the reaction was positive in 3. They call attention to the difficulty of maintaining homogeneous cultures and conclude that agglutination occurs more frequently in tuberculous than in non-tuberculous cases, but it is not specific. [J. S.]

3.—Hager discusses the nature of the cure that takes place in certain cases of tuberculosis, and believes that in tuberculin we have a remedy which will produce an increased resistance on the part of the organism. This increased resistance can be controlled by testing the agglutinative power of the bloodserum. When animals have been rendered resistant by means of tuberculin, that is to say, when they have developed a considerable quantity of antitoxin in their blood, it is possible that such serum may confer immunity upon human beings. This is particularly the method employed by Maragliano. [J. S.]

4.—Pröscher has prepared some diphtheria antitoxin which tests show is free from albumin. He believes that the antitoxins comprise a group of chemical substances the nature of which and properties are not yet understood by the chemists. [J. S.]

5.—Goldberg discusses cystoscopy in various conditions. In hypertrophy of the prostate it is not essential to the diagnosis. As however in many other conditions the prostate is hypertrophied, it is important to discuss its effect upon the operation. Usually the elongation of the urethra

which occurs in these conditions does not add any difficulty. When the prostate is greatly enlarged and broad, the appearance may be such that the operator believes he has entered the bladder before he has actually done so. Moreover, hypertrophied prostates bleed very easily and this renders the operation additionally difficult. It is sometimes possible to succeed with one form of cystoscope when others have failed. Cystoscopy in these conditions is always necessary before the operation. In cystitis, cystoscopy is not really as valuable for the diagnosis, as the presence of puscells in the urine. On the other hand, the instrument often enables us to exclude cystitis when puscells are present, for the latter may be mixed with the urine either from above the bladder or from the urethra. In chronic forms of cystitis and especially tuberculosis, cystoscopy is of great value. In cases of vesical calculus, cystoscopy is frequently of little value, because the urethra bleeds so readily and because other methods of diagnosis are so satisfactory. In cases of tumor of the bladder cystoscopy is of the greatest value. In case there is hematuria, if it is not too severe, the bladder can be thoroughly washed with a solution of boric acid. In many forms of vesical tumor the cystoscope is the only method by which a diagnosis can be made. [J. S.]

6.—Weisswange classifies cases in which cure occurs in the course of peritoneal and renal tuberculosis, into: Those in which spontaneous cure occurs, those recovering as a result of laparotomy, those in which not only the local disease but other tuberculous foci in the body are favorably influenced by laparotomy, and those which are not cured by operative interference. He mentions 2 cases belonging to the third group. First, a girl, 5 years of age, greatly emaciated with a distended abdomen and ascites. There was also tuberculous disease of the lower jaw. Two or three liters of clear fluid were removed through a laparotomy opening, the wound was closed, and a few days later the lower jaw began to grow smaller. Tuberculosis of the fingers developed, but recovered, and a year after the operation the child seemed to be entirely well. Another case occurred in a boy of 8 with fever, catarrhal disease of both pulmonary apices, a pleural exudate on the left side and an abdominal exudate also on the left side. At the operation the peritoneum was found to be covered with tubercles on the parietal surface. The wound was not entirely closed and a badly healing fistula was established through which necrotic portions of the peritoneum were discharged. In the course of 2 months the fever disappeared, the patient began to gain in weight and 5 years later his condition was still satisfactory. He also briefly mentions 2 other cases of pulmonary tuberculosis associated with peritoneal tuberculosis which recovered as a result of operation. He mentions two cases of renal tuberculosis in one of which the patient had a horseshoe kidney, the tuberculous portion of which was incised and tamponed, and the patient subsequently recovered completely. He also mentions a case with tuberculosis of the epididymis, the prostate and the bladder. An operation removing the left epididymis gave no relief and subsequently the left kidney appeared infected and was extirpated. The patient recovered from the operation and all the other tubercular manifestations disappeared. The nature of the cure is not clear, but Weisswange suspects that the local hyperemia produced and the increase in the substances acting against the tuberculous processes in the body were largely responsible for the benefit. He discusses the literature very thoroughly. [J. S.]

7.—Aronheim reports a case of violent hemorrhage from the anus which was discovered to be due to the prolapse of a pedunculated rectal tumor. The peduncle was ligated, the tumor removed, and the patient recovered. Microscopically the tumor was found to be a mucous polyp. For a year before the accident the patient had complained of a tumor in the rectum. [J. S.]

8.—Albrecht, in continuation of his article upon the physiological function of tumors, mentions a series of tumors found accidentally in the spleen, which showed apparently some hyperplasia of the splenic pulp. These tumors proved to be angiomas and he believes that it is possible that the development was due to an hyperplasia of the epithelium. Theoretical considerations led him to believe that perhaps in the liver there can be an hyperpla-

sia of the smallest elements of the biliary system whenever the tumor-forming activity of certain of the cells is inhibited. He found, on examination of some cases of nodular hyperplasia of the liver, certain changes that seemed to accord with his hypothesis. As a result of his studies he attempts a classification of tumors as follows: Hamartoma, a tumor-like malformation with preservation or alteration of the function of the cells; choristomata, tumors the result of dislocation of cells from their normal surroundings; blastomata, tumors in which after the dislocation of cells progressive infiltrative growth occurs. [J. S.]

9.—Peter discusses some of the difficulties that arise in connection with certificates for the invalid insurance of Germany, with reference to visual defects on the part of the applicants. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

July 21, 1902. (39 Jahrgang, No. 29.)

1. The Danger of Tetanus Following Subcutaneous Injections of Gelatine. PAUL KRAUSE.
2. The Topical Diagnosis of Gastric Tumors. KARL GLAESSNER.
3. The Production of Amboceptoroids in Human Serum. ERNST NEISSER and ULRICH FRIEDMANN.
4. Pernicious Anemia. PAUL RECKZEH.
5. The Treatment of Suppuration of the Antrum of Highmore. STURMANN.

1.—Krause has collected a number of cases of tetanus following the subcutaneous injection of gelatine. He believes that such infection depends upon incorrect or insufficient sterilization of the gelatine. To sterilize the gelatine he advises the fractional method, heating the gelatine solution for a half hour during 5 successive days to 100° C. The subcutaneous injection of gelatine will then be safe as a hemostatic in all cases of hemorrhage. [M. O.]

2.—Glaessner reports 13 cases of gastric tumor, 6 at the pylorus and 7 at the fundus, in all of which the localization was made by an examination of the gastric contents. When pepsin and the lab ferment are both much decreased, the tumor affects the fundus; when the lab ferment is normal but the pepsin has diminished, the tumor affects the pylorus. [M. O.]

3.—Theoretically the complementophile group, the cytophile group, or both groups of amboceptors may be destroyed. Neisser and Friedmann show by their experiments that an anticomplement probably does not exist in fresh serum. It appears only after heating the serum to 56° C. The significance of these amboceptoroids in the serum of patients with uremia is not positively determined as yet. In such serum the cytophile group of amboceptors probably is alone destroyed. [M. O.]

4.—Will be abstracted when concluded.

5.—Suppuration of the antrum of Highmore may be due to catarrhal, hyperplastic or destructive changes, such as caries, necrosis, etc. The cause of the condition is generally some nasal or dental disease. Therefore the nose, mouth and neighboring sinuses should be examined. It follows any infectious disease, especially pneumonia and influenza. In the treatment Sturmann advises potassium iodide, a cocaine spray and irrigation, from the nose or mouth. Finally operation may become necessary, to see the conditions of the antrum or to treat the changes which have occurred in the antrum. Sturmann believes that nonoperative treatment is best, since polypi, etc., can be removed without radical operation. Besides, the duration of treatment is approximately the same, with or without operation. [M. O.]

July 28, 1902. (39 Jahrgang, No. 30.)

1. What is Tuberculosis? J. ORTH.
2. Myeloid Changes in the Spleen and Lymphglands. HANS HIRSCHFELD.
3. Lupus Erythematodes. EUGEN HOLLAENDER.

4. Reply to Gabritschewsky's and Berding's Recent Articles. J. RUHEMANN.

5. Pernicious Anemia. PAUL RECKZEH.

1.—After fully reviewing the anatomical researches made before the tubercle bacillus had been discovered, Orth insists that all the facts about tuberculosis, miliary, bony, arthritic, of the skin, scrofulous, of animals, etc., had been well understood and explained before Koch's discovery, contrary to the opinions of Weichselbaum and Neusser. Whether the bacillus is found or not, the morphological changes of tuberculosis are typical. Nowadays histological, bacteriological and experimental investigations are employed to settle the diagnosis. Time will soon show the relation between tuberculosis in man and in animals. [M. O.]

2.—Myeloid changes are noted in the spleen and lymphglands in myelogenous leukemia. Hirschfeld's investigations confirm the fact that myelocytes are found in the spleen and lymphglands in the infectious diseases in large quantities, but not in every case. Though it seems probable that the leukocytes themselves form myelocytes in the spleen and lymphglands in infections, it is more probable that infectious diseases cause a multiplication of the marrow-cells and cause their migration from the bone-marrow. [M. O.]

3.—Lupus erythematodes, while often associated with tubercular disease in the same individual, is probably not tuberculous in character. For hot air applications will cure tuberculous lupus, though it has no effect on lupus erythematodes. Holländer gives 7½ grains of quinine 3 times daily internally, and makes many applications of tincture of iodine locally. This association of remedies has an almost specific result when continued and stopped during alternate weeks. A theoretical etiology of the disease follows. [M. O.]

4.—Ruhemann answers the assertion made against his work by Gabritschewsky and Berding in recent numbers of this journal, and again shows the value of his test for uric acid in the urine. [M. O.]

5.—Reckzeh reports detailed case-histories of 5 men with progressive pernicious anemia, appending numerous blood examinations. This condition is no longer rare in Berlin. In one case a tape-worm, in another syphilis, may have been a cause. The blood changes were typical. All 5 cases were fatal. Symptomatology, course, pathology and treatment are described. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

July 17, 1902. (XV. Jahrgang, No. 29.)

1. The Use of Sensitive Photographic Paper for the Photometric Estimation of the Light in Schoolrooms and Working Rooms. J. M. EDER.
2. Pancreatic Diabetes and Severe Jaundice. H. TELEKY.
3. The Formation of Antibodies. ARTHUR KLEIN.
4. On Counting Leukocytes. WILHELM TUERK.

1.—For photometry as usually employed, ordinary argentic bromide or chloride sensitive paper is used, which measures the intensity of the blue, violet and ultraviolet rays. But for estimating the yellow rays of light, especially in schoolrooms or workrooms, Eder advises using Andersen's rhodamin argentic bromide paper, which works best, according to our present photochemical knowledge. [M. O.]

2.—Teleky reports in full the case-histories of 2 patients, men of 50, whose first symptom was glycosuria. In a few weeks severe jaundice developed, at which time the glycosuria disappeared, never returning. The jaundice persisted until death. Autopsy in both cases showed chronic pancreatitis, which had narrowed the lumen of the ductus choledochus. Liver and intestines were normal. Operation was performed in one case without success. While one was true pancreatic diabetes, the other was a tumor of the pancreas. [M. O.]

3.—Antibodies may be antitoxins, cytotoxins or precipitins. To cause the formation of antibodies substances must be albuminous and assimilable. That this is true is shown by Klein's experiments. The chemicophysical characteristics of a substance capable of causing the production of antibodies are not yet known. [M. O.]

4.—In counting leukocytes Türk uses a 1% solution of acetic acid, containing 1% of gentian violet. His slide, perfected 5 years ago, differs somewhat from those designed by Zappert and Elzholz and contains a greater number of marked squares, as he explains diagrammatically. In all he counts from 200 to 600 cells, which takes at most 15 minutes. Lymphocytes, mononuclear and polymorphonuclear leukocytes are easily recognized. The presence of mast-cells, erythroblasts, myelocytes, etc., is also noted before dried, stained specimens are examined. Malarial parasites remain unchanged by acetic acid, and the condition is therefore rapidly diagnostic. Full details are given. In most cases it is not necessary to make dried, stained blood preparations. [M. O.]

MEDICINSKOJE OBOZRENIE.

Vol. LVII, No. 6, 1902.

1. Alveolar Pyorrhea. Its Pathological Anatomy, Causes and Radical Treatment. N. N. ZNAMENSKY.
2. Tuberculosis of the Bladder and Prostate. L. V. KON.
3. Painful Obesity (Adipositas Dolorosa, Dercum's Disease). I. A. F. KAPLAN and A. PH. PHEDOTOFF.
4. Epilepsy and Drunkenness.
A. N. BERNSTEIN and T. PH. BOGDANOFF.
5. On the Application of Limantherapy in Diseases of the Heart. L. G. LEVIN.
6. Turpentine in the Treatment of Uterine Hemorrhages.
L. LIENEVITCH.

1.—Znamensky presents the following résumé of his studies of pyorrhea alveolaris: (1) The process in the bone in alveolar pyorrhea is one of osteitis rarefaciens. (2) It does not develop primarily in the bone, but subsequently, commencing as a purulent inflammation of the gums which gradually extends to the bone and produces the pathological condition. (3) The osteoporotic form of atrophy of the alveolar processes leading to complete loosening of the teeth, so far undescribed, has been up to the present looked upon as alveolar pyorrhea without suppuration or deposit of tartar. (4) It is on account of this form that Baume and others erroneously maintained that pyorrhea alveolaris may commence primarily in the bone in the absence of any inflammation of the gums. (5) The osteoporotic form of atrophy of the alveolar process presents a very favorable soil for the development of pyorrhea alveolaris. (6) Various pathological conditions of a constitutional character, as scrofula, rachitis, syphilis, tuberculosis, acute eruptive fevers, typhus, malaria, diabetes mellitus, tabes dorsalis, rheumatism, gout, chronic catarrh of the stomach, anemia, chlorosis, unsanitary dwelling, insufficient nourishment, repeated pregnancy and other debilitating diseases lead to general atrophy of the soft parts of the organism as well as the skeleton and particularly the alveoli. (7) These debilitating conditions create in the bone a favorable soil for the development of pyorrhea alveolaris particularly in the form of osteoporotic atrophy. (8) The lack of proper hygienic attention to the teeth during the above mentioned constitutional diseases leads to a deposit of tartar, and suppurative inflammation of the gums, which extends to the bone forming alveolar pyorrhea. (9) In the mild forms of pyorrhea, when only the parts of the alveoli which do not contain bone marrow are attacked, more attention to the teeth, removal of the tartar, washing with some disinfecting and astringent solution and correction of the diet are sufficient to effect a cure. (10) In more advanced cases the above treatment is inadequate, and scraping the affected bone with a sharp spoon is the only radical and rapid method of treatment. (11) In the presence of con-

stitutional diseases it is essential to employ in addition to the local also general treatment. (12) In view of prophylactic and hygienic measures for the prevention of the disease, chewing of solid food, such as a hard crust of bread, is advisable as a means of gymnastics tending to improve the nutrition of the alveoli and strengthening the gums and teeth. [A. R.]

2.—Kon reports a case of primary tuberculosis of the bladder and prostate in a man, 45 years old, with a good family- and personal history. The illness was of 3 years duration, and he had been treated for stricture until the pronounced symptoms of tuberculosis, together with the discovery of tubercle bacilli in the urine, enabled the author to establish a correct diagnosis. General treatment with tonics, and irrigations with bichloride brought about marked improvement. The etiology, diagnosis and treatment of the disease are discussed. [A. R.]

3.—Kaplan and Phedotoff report a case of adiposis dolorosa in a woman, 56 years old. The case was typical, although without very marked obesity. The authors refuse to accept the theories of intoxication from a diseased thyroid, or trophoneurosis as explaining the nature of the disease, but maintain that adiposis dolorosa is a form of general obesity with a marked involvement of the nervous system analogous to Basedow's disease. [A. R.]

4.—Bernstein and Bogdanoff give a very interesting account of an epileptic in whom the manifestations of epilepsy were purely psychical. There were no convulsions, but the epileptic condition was characterized by periods of restlessness, temporary insanity, hydrochondria and dipsomania. [A. R.]

6.—Lienevitch recommends highly the application of turpentine in various forms of metrorrhagia. After an experience of 5 years he is convinced that it is a certain and safe hemostatic. His method of application is as follows: The cervical canal is swabbed with a solution of carbolic acid in glycerine (1:3) and dilated if necessary. A long, narrow strip of iodoform gauze is then dipped in pure turpentine and inserted into the uterine cavity. The patient is placed on a couch or in bed for 2—6 hours. At the end of 2, 3 or 6 hours the tampon is removed, and the patient given a teaspoonful of tincture of ergot, in case she is sent home. In rare cases the application may have to be repeated in 4-5 days. The effect of this drug the author ascribes to its power to produce lasting uterine contraction and its escharotic and vasoconstrictor action. [A. R.]

THE DUBLIN JOURNAL OF MEDICAL SCIENCE.

June 2, 1902. (Third Series, No. 366.)

1. A Series of Cases Illustrating the Influence of Utero-ovarian Trouble in the Production of Intestinal Trouble. JOHN STEPHEN M'ARDLE.
2. On Dissociation, and the Ionic Hypothesis, as Applied to Medicine. WALTER G. SMITH.
3. On the Use of "X-Rays" in Medical Diagnosis.

WILLIAM S. HAUGHTON.

1.—M'Ardle reports a case of the above condition in which the utero-ovarian tumor had been looked upon as a floating kidney. The bowel had become strangulated by a band, that, under ordinary circumstances, was innocuous. The patient's gynecological attendant, wishing to keep the tumor out of the pelvis until that cavity had become filled with the uterus, always relieved her distress by pushing the tumor above the pelvic brim. At each disturbance of the tumor from the pelvis it was pushed over the band alluded to; then, gradually sliding behind the band, it soon assumed its pelvic site. The pain again recurred and in the effort to relieve it the tumor was again elevated, only again to fall behind this very rigid cord, which ultimately strangulated it after four such efforts. It was the strangulation of the tumor which led to the faintness; then to the localized peritonitis which caused adhesions and lastly to the intestinal obstruction for which operation was necessary. [T. M. T.]

2.—Smith comes to the following conclusions: (1) There is a deepening conviction among chemists and physicians

that, whatever may be its difficulties and whatever form it may ultimately assume, the Ionic hypothesis is an extremely useful hypothesis. (2) It has co-ordinated whole series of facts which were before dissociated or obscurely recognized; it has shed the light of reason upon many practices in analytical chemistry which were altogether empirical, and it explains many reactions which are otherwise but dimly or imperfectly understood. There are those who look upon the ionization theory as absolutely false and who will have nothing to do with it. [T. M. T.]

3.—Haughton states that the X-ray examination will prove valuable in the following varieties of pulmonary tuberculosis: (1) In the diagnosis of very early disease, when there are no physical signs or when they are very doubtful; (2) in cases with very slight physical signs; (3) in those with complications; (4) to confirm diagnosis; (5) to test lungs. In the first division we find slight opacity of one apex or of that part of lung at which disease is commencing. In the second we find restricted movement of the diaphragm on the affected side, due to loss of elasticity in the lung tissue. In the third, in some cases, during deep inspiration the heart is displaced toward the affected side. Later the X-ray shows an increase in the opacity and size of the shadow of the consolidated patch; and at the same time the diaphragm's movements become more restricted on the affected side. In pneumonia the X-ray reveals the following: (1) Dense opacity of part or whole of the lobe according to degree of affection; (2) restriction of the diaphragm on the affected side or sides; (3) displacement of the heart away from the affected side. In the after-treatment of a case of pneumonia, and more especially in forming a prognosis as to the risk of secondary affection of the lung, the author believes that the X-ray will be of great service. In pleurisy we find: (1) The contour of the diaphragm is wholly or partly obscured, the pleuritic fluid being very opaque, compared with the lungs; (2) the lung on the affected side is more opaque uniformly, due to compression by the effusion; (3) the heart shadow is also, of course, displaced away from the fluid. Interlobular effusion can also be readily distinguished. In emphysema of the lungs the screen shows a much brighter condition. In pneumothorax, both with or without hydro-, pyo- or hemothorax, the pleural space is remarkably clear when contrasted with the opposite side of the chest. Tumors of intrathoracic origin, malignant growths in the lungs, pleura or mediastinal glands, also bronchial tubercular glands and some cases of esophageal cancer, yielded distinctive X-ray signs. Aneurysm of the aorta is readily diagnosed by the X-ray, and especially in the early stages seems of larger area than percussion can indicate. In many forms of cardiac disease most valuable information is obtained by observing changes in the size, shape, pulsation and position of the heart. It is also useful in the examination of the abdomen, and dilatation of the esophagus due to stricture can, at certain levels, be diagnosed by the same means. [T. M. T.]

THE EDINBURGH MEDICAL JOURNAL.

July, 1902. (Vol. XII, No. 1.)

1. The Nervous Affections of the Heart. G. A. GIBSON.
2. Gastrostomy. ALBERT CARLESS.
3. The Periodicity of Hemisphericity in the Male.
D. FRASER HARRIS.
4. A Further Investigation Into the Causation of Cancer.
D'ARCY POWER.
5. Country Practice in the Orange River Colony.
H. M. TRAQUAIR.
6. The Annual Report of the Central Board of Education for Zurich. A. J. PRESSLAND.

1.—To be abstracted when concluded.

2.—Carless gives certain cardinal points to guide one in selecting or devising a suitable method: (1) Gastrostomy is an operation which should never be undertaken until the patient is actually unable to swallow. (2) Moreover, owing to the inanition, the reparative process is not very vigorous, and therefore adhesions between stomach and parietes are sometimes slow in forming. (3) In cases of stricture of the esophagus, from whatever cause, the stomach is often very contracted and therefore one has not a great amount of tissue to deal with, necessitating the selection of a pro-

cedure which is economical of the gastric tissue. (4) At the same time the opening must be such that regurgitation is unlikely to occur. (5) Looking to the tendency to contraction which occurs in all fistulæ, it is desirable that the opening into the stomach should be lined with mucous membrane and not lined throughout with serous membrane or granulation tissue. (6) Operation should include the immediate opening of the stomach. (7) During the early stages it is desirable to protect the opening of the fistula on the skin from the fluids which are introduced at each feeding and which are necessarily not sterilized, since, if they lie about on the exposed surface of the wound, they may lead to septic contamination; one always stitches in a tube or ordinary India rubber, so as accurately to fit the opening made into the stomach, and through this food is administered. [[T. M. T.]

AMERICAN JOURNAL OF MEDICAL SCIENCES.

April, 1902.

1. Localization of the Mental Faculties in the Left Pre-Frontal Lobe. CHAS. PHELPS.
2. Brain Abscess in Typhoid Fever Due to the Bacillus Typhosus. R. McCLINTOCK.
3. Modern Mastoid Trephining Operations.
ALEXANDER RANDALL.
4. Corrected Mal-Union in Fractures of Radius and Ulna of Both Forearms. CARL BECK.
5. Albuminous Expectoration Following Thoracocentesis.
D. RIESMAN.
6. Primary Tuberculosis of the Liver. L. FRANK.
7. The Association of Stone and Tumor of the Urinary Bladder. E. ROSENOW.
8. A Case of Stomatitis Gangrenosa. (Noma.) FISCHER.
9. The Effects of Change of Color upon Pigment Bacteria.
CHAS. OLIVER.
10. On the Effect of Severing and Mechanically Irritating the Vagi. G. CRILE.
11. Experimental Investigation into the Causes and Treatment of Diabetes Mellitus. A. CROFTAN.
12. Present Methods of Treating Ureters Severed During Abdominal Operations. WM. NICHOLSON.

1.—Phelps has collected a large amount of material from various sources which tends to prove that when the frontal lobe is injured there is usually some disturbance of intellect. Personally he has observed 46 cases, all verified by autopsy, 39 of which he previously reported, and 18 of which he gives in detail in the present paper. Summarized these cases are: (1) With almost exclusive mental symptoms, due to tumor in the left frontal lobe; (2) apparent abolition of mental action, due to laceration of the left frontal convolution; (3) some mental deficiency due to softening of the left frontal convolutions; (4) stupidity, due to deep laceration of the anterior left frontal lobe; (5) irrationality and later delirium, due to laceration of the left frontal lobe; (6) apathy and delusions, etc., due to laceration of the left frontal lobe; (7) stupor, mental deficiency, due to atrophy of the left frontal lobe; (8) incoherence and mental impairment, due to atrophy of the left frontal lobe; (9) delirium and mental enfeeblement due to disintegration of the left frontal lobe; (10) delusions due to atrophy of the anterior half of the left cerebral hemisphere; (11) stupidity, etc., due to laceration of both frontal lobes; (12) stupidity and incoherence due to laceration of both frontal lobes; (13) apathy, etc., due to abscess of both frontal lobes; (14) deficient mentality due to laceration of both frontal lobes; (15) mental condition normal until coma, with laceration of the right frontal lobe; (16) mental condition normal until the fourth day when meningitis and arachnitis occurred with laceration of the right frontal lobe; (17) no mental disorder before coma with bullet wound of right frontal lobe; (18) no mental symptoms for 2 years after injury when epilepsy occurred, with disintegration of right frontal lobe. Phelps concludes that all cases, in which there were lesions of the left frontal lobe, were attended by default of mental control, and the lesion was generally, if not always, in the prefrontal lobe. (2)

When the injury was confined to the right frontal lobe, the mental faculties were unaffected unless there was stupor or delirium. Lesions of the left frontal lobe rarely produced specific disturbances. [J. S.]

2.—McClintock reports the case of a woman, 49 years of age, who during the later part of the school year felt malaise and fatigue. There was fever, headache, and she developed a typical attack of typhoid fever. In the fifth week the temperature became remittent and sometimes intermittent. She developed pains in the left side of the head and neck and finally became incoherent, having nausea and vomiting. This was followed by epileptic convulsions which were repeated, more marked on the right than on the left side. There was no inequality of the pupils. Later she developed amnesic aphasia and had frequent headaches, although the temperature was not much elevated. Finally she became stuporous, Kernig's sign developed, convulsive movements appeared in the right arm, and the patient died. At the autopsy a suppurative basilar meningitis was found, and an abscess was also discovered in the left temporal lobe. Cultures showed that this abscess contained a pure growth of the typhoid bacillus. [J. S.]

3.—Randall discusses trephining of the mastoid for various conditions, calls attention to the diversity of views now held by specialists and then mentions some points about the operation. (1) That it must be efficient in draining the tympanic antrum. The indications do not necessarily include fever or rigors; persistent pain and tenderness, after the tympanic membrane has been thoroughly open for a week, is usually a sufficient reason. The bone should be removed scale by scale so that there may be no danger to the lateral sinus. In chronic cases the antrum operation is not usually sufficient, and it will be necessary to open the external auditory canal so that the drum membranes and the ossicles can be removed. Dangerous directions should be avoided until all other possible work has been done, because then, if hemorrhage occurs, the operation is already nearly completed. Among the disagreeable sequelæ is facial palsy, which is especially apt to occur when the carious process surrounds the nerve. The mortality of the operation varies considerably, and death is rarely to be ascribed to intervention. [J. S.]

4.—Beck reports the case of a laborer who had both arms crushed in a machine. After apparent reposition the hands remained stiff, and, skiagrams showing considerable overlapping, operation was performed, exposing the fragments, drilling them and fastening them with wire sutures. Union was entirely satisfactory and the deformity was almost completely corrected. [J. S.]

5.—Riesman reports the case of a woman, 48 years of age, who developed cyanosis and all the signs of pleural effusion. This was drawn off and during the aspiration the patient began to cough, bringing up some frothy fluid. Shortly afterward there was crepitation over the chest, and subsequently the symptoms of tumor of the anterior mediastinum appeared. The aspirated fluid contained 4.5% albumin by Esbach's albuminometer. The theories that are advanced for explaining albuminous expectoration are: Perforation of the lung by the trocar; spontaneous rupture of the lung; absorption by the lung of fluid remaining after the tapping; and pulmonary congestion with intense edema. Riesman discredits the first three of these and concludes that the true explanation is the sudden occurrence of pulmonary edema. The principal cause is too rapid or too great withdrawal of fluid and is predisposed by morbid conditions of the opposite lung, or cardiac disease. When these complications exist, aspiration should be performed slowly or small quantities withdrawn at intervals. The treatment consists in artificial respiration, venesection and the administration of morphine. [J. S.]

6.—Frank reports the case of a man, 44 years of age, who developed pain in the abdomen and right hypochondrium. There was rather constant fever and frequent chills. The patient became slightly jaundiced, much emaciated and enlargement of the liver could be determined. He then developed slight ascites, and an exploratory operation was

performed. The liver was adherent to the diaphragm and contained numerous tubercles. The patient greatly improved after the operation, but subsequently the symptoms returned and he finally died. At the autopsy the liver was found to contain tubercles, and some of the mesenteric glands were caseous. It appears, therefore, that the case was one of primary tuberculosis of the liver. [J. S.]

7.—Rosenow reports the case of a man, 35 years of age, who had always had difficulty in micturition. He finally began to emaciate and a tumor of the bladder could be determined. At the autopsy a large tumor was found in the bladder which appeared to be a carcinoma, and at the same time there was a large round stone weighing 150 gm. It is probable that the stone preceded the tumor formation. There is reason to believe that it had lasted for many years. The author collects 44 cases of tumor associated with calculus, in most of which it appeared that the calculus preceded the tumor. [J. S.]

8.—Fischer reports a case of gangrenous stomatitis occurring in a girl, 7 years of age, who had had whooping cough for 4 months. Later she developed scarlet fever and after this noma of the right side of the face. She was treated with the Paquelin cautery and ichthyol and finally recovered. [J. S.]

9.—Oliver has exposed cultures of the chromogenic bacteria to rays of light passing through colored glass. He mentions particularly his experience with *B. prodigiosus*, *B. vireus*, *M. rosans*, *B. indicans*, *B. pyocyaneus*, and *S. lutea*. He concludes that color changes of kind and intensity take place in a great many chromogenic bacteria. If, however, they are brought into their normal environment, they return to their original shade. Differences in color probably bear some relation to altered nutrition, each species having a typical change. [J. S.]

10.—Crile has performed a variety of experiments upon the vagus and found that various forms of irritation usually produce a slowing of respirations and a rise in blood pressure. He mentions some interesting clinical cases in which the vagus was injured during operation. In the first the right vagus was removed for malignant disease. Immediately after the patient was sent to the ward he had respiratory failure, and there was a profuse hemorrhage from the wound. This was controlled, and after prolonged artificial respiration the patient finally recovered. In 2 other cases no effect was noticed upon cutting. In another case, a gunshot wound, with the shot in the nerve trunk, produced slowing of the pulse and quickened respiratory action. In another case after a few minutes the pulse dropped from 90 to 56 as a result of irritation of the upper portion of the vagus during its section. In a sixth case the patient, upon whom an operation for a large goiter that embarrassed respiration was about to be performed, became cyanotic, the tumor was rapidly torn out while she was unconscious, and the hemorrhage controlled by grasping the arteries with large forceps. The vagus was included in the clamps, but no symptoms apparently were produced. [J. S.]

11.—Croftan, having first determined that there is a gradual absorption of the sugar in the blood and lymph, performed a series of experiments in order to determine in what portion of the blood the glycolytic power resides. The serum of centrifugated blood contained most of the sugar but had no glycolytic action. Washings from the corpuscles, however, possessed considerable glycolytic power. Further experiments showed that this glycolytic power belonged exclusively to the white bloodcells. The presence of the pancreas increased the power to destroy sugar considerably, as was shown in a comparative experiment upon 2 dogs, one with, and one without this organ, in whom the blood sugar had been considerably increased. The glycolytic ferment of the blood possesses some of the properties of trypsin, and a solution of this ferment and a solution of trypsin cannot be distinguished by known methods. Croftan does not believe that there is a uniform cause for diabetes mellitus or that we are justified in assuming pancreatic disease in all cases. He suggests, however, that, in

treating diabetes, we should increase, if possible, glycolysis, and for this purpose we may infuse chyle or blood from a healthy animal, inject leukocytic extracts, trypsin or vegetable glycolytic ferments. He was able to reduce the elimination of sugar in 2 dogs from whom the pancreas had been removed by treating them with glycolytic ferment. [J. S.]

12.—Nicholson gives a critical summary of the present method for the treatment of severed ureters. The different methods are bladder anastomosis, which is advised by many in all cases in which the injury to the ureter occurs below the pelvic brim; ureteral anastomosis, and finally rejoining the severed ends of the ureter, which has been done successfully in various ways. There is also intestinal anastomosis, the great difficulty of which is due to ascending infection. The mortality following this operation is high. However, it is necessary when the bladder is removed for malignant disease. Babato suggested that a loop of intestine be isolated and finally formed into a bladder. Some other interesting methods are also described. [J. S.]

ANNALS OF SURGERY.

July, 1902.

Foreign Bodies in the Lungs. T. A. KORTEWEG.

Ligation of the Lingual Artery through the Mouth in Excising Half of the Tongue. C. W. CATHCART.

The Treatment of Prostatic Hypertrophy Associated with Stone in the Bladder by Means of Litholapaxy and Bottini's Operation at one Sitting.

WILLY MEYER.

Transvesical Cauterization as a Substitute for the Bottini Operation in the Treatment of Some Forms of Prostatic Hypertrophy. A. L. BOUFFLEUR.

Traumatic Rupture of the Spleen; Splenectomy—Death on the Sixth Day. E. A. BALLOCK.

Gangrenous Intussusception in a Child, 4 Years Old; Intestinal Resection; Recovery. C. N. DOWD.

The Operative Treatment of Diseases of the Pancreas. B. T. TILTON.

Osteoplastic Resection of the Skull by Means of a New Trephine. J. C. DaCOSTA.

Motor Aphasia due to a Small Cortical Hemorrhage in the Region of Broca's Convolution; Trephining; Recovery. L. W. HOTCHKISS.

Operations on the Kidney at the German Hospital in Philadelphia. J. B. DEEVER.

Hydatid Cysts of the Kidney. I. S. HAYNES.

Intestinal Polyposis and Carcinoma. J. NIEMACK.

Bony Cysts of the Middle Turbinate Body.

G. E. SHAMBAUGH.

Subacromial Dislocation from Muscular Spasm.

HERMAN MYNTER.

The Role of the Bacillus Proteus Vulgaris in Surgery. N. W. WARE.

1.—Korteweg reports a case of foreign body in the lung, consisting of a fragment of lyddite-shell which lodged behind the mesial portion of the second rib, about 7.5 cm. from the front wall of the thorax. Seven months after the accident in the presence of septic symptoms the fragment, which measured 4.5 cm. in its longest diameter and which weighed 42 gm., was removed by resecting the second rib and cutting through the lung with a scalpel. The patient regained perfect health. Korteweg holds that a foreign body in the lung should demand immediate attention, even though there are no serious symptoms, as it inevitably causes death sooner or later unless coughed up or removed by operation. Of 160 cases collected by Hoffmann only one dubious recovery without the foreign body being removed by extraction, expectoration or suppuration is mentioned. Late operation may improve the patient's condition but will not effect a cure, owing to the widespread pathological changes induced by the foreign body.

[F. T. S.]

2.—Cathcart recommends ligation of the lingual artery through the mouth in excising half the tongue because of

its case and certainty, because of the diminished bleeding from the small vessels, because of the greater certainty of cutting wide of the disease, and because an intact condition of the neck for the removal of the glands is maintained. The method is based on the fact that the hyoglossus muscle, although attached to the posterior third of the tongue, can be reached from the mouth when the tongue is drawn far out and the mucous membrane has been divided between it and the jaw. The jaws are opened widely, the tongue split, the geniohyoglossus divided, strong traction applied to the tongue, the anterior two-thirds of the hyoglossus severed, and the lingual artery isolated. After the artery has been tied, a few snips with the scissors should be made radiating out from the ligatured artery into the substance of the tongue in order to lessen the chances of cutting the vessel again in the later stages of the operation. All that now remains to be done is to complete the operation by cutting wide of the disease. [F. T. S.]

3.—Meyer writes a paper the object of which is to show that litholapaxy (the operation of choice for stone in the bladder) may well be done in cases of hypertrophy of the prostate; and that no trouble is likely to result in consequence of the hitherto much feared resentment of the gland to the continued intra-urethral and intravesical instrumental intervention, if the Bottini operation follows the litholapaxy at the same sitting. Three successful cases are reported. [F. T. S.]

4.—Bouffleur proposes treating suitable cases of hypertrophy of the prostate by opening the bladder suprapubically and incising the obstructing gland with the Paquelin cautery. The advantages of this suprapubic transvesical cauterization of the prostate over the Bottini operation are as follows: (1) It admits of an accurate anatomicopathological diagnosis which is fundamentally essential to intelligent treatment. (2) The cauterization can be made with the galvanocautery or the more commonly possessed Paquelin cautery with ease, rapidity and safety. A carved cautery-blade would greatly facilitate the procedure. (3) The incision can be accurately placed. (4) We can see the field of operation and the structures being cauterized. (5) The length and depth of the incision can be regulated to meet the requirements in the particular condition found. (6) The temperature of the blade is under direct ocular observation. (7) The time of application can be regulated so as to insure destruction of the tissue, and if the Paquelin is used it can be applied with sufficient force and time to make the incision, regardless of the density of the tissue. (8) There is no danger from bending of the cautery. (9) If hemorrhage does occur, its location can be definitely determined and measures for its control intelligently and effectively employed, as has been demonstrated by Eisendrath. (10) It is applicable to all forms of enlargement projecting into the bladder, and particularly so in the removal of pedunculated lobes or valve formations. A partial prostatectomy followed by cauterization would be an ideal procedure for such conditions. (11) It is applicable in all cases regardless of urethral obstruction. Such obstructions can frequently be readily removed from within. (12) It admits of the removal of a calculus or the direct treatment of an ulcer. It also admits of suprapubic drainage if the cystitis seems to require it, or if the urethra is impermeable from within. (13) It is not as likely to be followed by infection, phlebitis, sepsis, etc., as the uncertain urethral operation. [F. T. S.]

5.—Ballock reports a case of traumatic rupture of the spleen due to a man-kick in the left side. Nine days after the accident the abdomen was opened and the spleen removed. Death occurred on the sixth day from a pneumonia and gangrenous peritonitis. [F. T. S.]

6.—Dowd reports a case of gangrenous intussusception in a child, 4 years old; intestinal resection was followed by recovery. He calls attention to the rarity of recovery from irreducible intussusception and discusses 2 points in the treatment of gangrenous intestine; viz: Intestinal resection *versus* the making of an artificial anus, and the method

of uniting the ends of resected intestine. Resection is to be preferred to the making of an artificial anus. It takes almost as long to fasten the divided intestinal ends into the abdominal opening as to fasten them to each other. Recovery after intestinal resection is complete. Recovery after the formation of an artificial anus is protracted and a secondary operation becomes a necessity. The mortality of artificial anus is greater than that of resection and the mortality of the secondary operation for the closure of the artificial anus is high. Dowd unites the ends of the resected intestine by a row of sutures going through the entire intestinal wall, the knots being on the inside; this row of stitches is then reinforced by an outer row of Cushing sutures. The stitch at the mesenteric border is passed through the entire intestinal wall and through both layers of the peritoneum as they pass from the intestinal wall to form the mesentery, thus giving a secure closure at this usually weak point. [F. T. S.]

7.—Tilton gives a résumé of the operative treatment of diseases of the pancreas without adding anything new. [F. T. S.]

8.—DaCosta describes a new instrument devised by Stellwagen for effecting an opening into the cranial cavity. It consists of a handle and shaft as does the ordinary trephine. Screwing into the end of the shaft is a movable center point above which is a shoulder to prevent the point from penetrating into the cranial cavity. The shaft is pierced by a quadrilateral hole, through which passes perpendicularly to the shaft a piece of steel, the degree of projecting of the steel being regulated by a screw so that any desired size of bone may be cut. The projection bar has a gear hole forged in its outer end, into which fits the shaft of a movable knife for the cutting of the soft parts and subsequently the shaft of a saw for the severing of bone. The saw may be raised or lowered to suit each case. DaCosta concludes that the instrument is simple in construction, easily manipulated and sterilized, free from danger of disarrangement and crippling, is speedily set and sharpened, is cheap and is capable of cutting either an osteoplastic flap or a circular piece with great rapidity. [F. T. S.]

9.—Hotchkiss reports a case of motor aphasia due to the pressure of a bloodclot on Broca's convolution in which trephining was followed by recovery. The patient, a man, aged 29, fell down a flight of stairs, striking the occiput. He remained unconscious for a period of 8 hours. Aphasia was present, and later right-sided facial paralysis developed. Operation was performed 3 days after the accident, a clot, the result of hemorrhage from small cortical cerebral vessels, was found beneath the dura in the region of the center of speech. The power of speech gradually returned and recovery was practically complete at the end of one month. [F. T. S.]

10.—Deaver reports 49 operations upon the kidney at the German Hospital, Philadelphia. [F. T. S.]

11.—Haynes reports a case of hydatid cyst of the right kidney accidentally discovered during an appendectomy. Nephrectomy was performed, the patient dying 8 days later from previously existing pneumonia. Hydatid cysts are found in the kidney in 3 to 5% of all cases. Symptoms, if present, are due to the size of the tumor or to its rupture. The diagnosis is made by the history of an association with dogs, by the insidious growth of a tumor with a small globular outline with possible fluctuation and hydatid fremitus, by the absence of pain, fever or any change in the urine and by the finding of hydatids in the urine, feces or sputum following a rupture of the cyst. If the cyst is not interfered with, it usually results fatally from rupture, suppuration or pressure effects on adjacent organs. The treatment consists in incision and drainage; nephrectomy is not justifiable because of its high mortality. [F. T. S.]

12.—Niemack reports a case of intestinal polyposis in a girl, aged 12 years. The disease began during the patient's ninth year and ended fatally 3 years later. The mucosa of the colon, and several inches of the ileum, was more or

less beset with polypi. Two years later the father of the patient was operated upon for an adenocarcinoma of the rectum associated with polypi. Later a male nephew of the patient, aged 29 years, came under observation with 2 large pedunculated polypi situated about 5 inches above the anus. These facts suggest a possible infectiousness of intestinal polyposis. [F. T. S.]

13.—Shambaugh publishes 3 cases of cysts of the middle turbinate bone. He believes these cysts to be displaced ethmoid cells which have expanded into large cavities. [F. T. S.]

14.—Mynter's case of subacromial dislocation of the head of the humerus is of interest because of the rarity of this special form of injury, because it was produced by an epileptoid convulsion, and because of the long time, 3 months, the patient suffered from the deformity without suspecting the real cause of the pain. [F. T. S.]

15.—Prompted by a case of abscess of the mouth associated with jaundice and in which he found the bacillus proteus vulgaris together with streptococci, Ware reviews the literature of the former organism as bearing on surgery. The bacillus proteus is ordinarily nonpathogenic, although it is observed in various inflammations associated with other bacteria; at times, however, it may become pathogenic and cause a general infection by invading the blood and internal organs. Originally found in decomposing animal matter, it is easy to understand how fetid cystitis, peritonitis, and other infections may be induced by decomposing placental remains. [F. T. S.]

THE UNIVERSITY OF PENNSYLVANIA MEDICAL BULLETIN.

June, 1902.

1. The Etiological Significance of the Acid-resisting Group of Bacteria, and the Evidence in Favor of their Botanical Relation to the Bacillus Tuberculosis.
2. Alfred Stillé. WILLIAM OSLER.
A. C. ABBOTT and N. GILDERSLEEVE.
3. The Necessity for an Elective System in a School of Medicine, and its Disadvantages.
HERBERT L. BURRELL.
4. Specific Gravity of the Urine and Nitrogen Elimination in Pregnancy. CASPER W. MILLER.
5. A Brace for Anteroposterior Curvature of the Spine.
A Flexible Curve for Body Tracings.
GWILYM G. DAVIS.

1.—Abbott and Gildersleeve present an admirable paper detailing the results of their extensive studies into the etiological significance of the acid-resisting group of bacteria, and the evidence in favor of their botanical relation to the tubercle bacillus. Their conclusions are as follows: (1) The majority of the acid-resisting bacteria may be distinguished from true tubercle bacilli by their inability to resist decolorization by a 30 per cent. solution of nitric acid in water. (2) Some of the acid-resisting bacteria are capable of causing in rabbits and guinea-pigs nodular lesions suggestive of tubercle; but these lesions, while often very like tubercle in their histological structure, may nevertheless usually be distinguished from them by the following peculiarities: (a) When occurring as a result of intravenous inoculation they are always seen in the kidneys, only occasionally in the lungs, and practically not at all in the other organs. (b) They constitute a localized lesion, having no tendency to dissemination, metastasis or progressive destruction of tissue by caseation. (c) They tend to terminate in suppuration or organization rather than in progressive caseation, as is the case with true tubercle. (d) They are more commonly and conspicuously marked by the actinomyces type of development of the organisms than is the case with the true tubercles, and these actinomyces are less resistant to decolorization by strong acid solutions than are those occasionally seen in tubercles. (3) That by subcutaneous intravenous and intrapulmonary inoculation of hogs and calves the typical members of the acid-resisting group are incapable

of causing lesions in any way suggestive of those resulting from similar inoculations of the same animals with true tubercle bacilli. (4) Though occasionally present in dairy products, they are to be regarded as of no significance, etiologically speaking, but may be considered as accidental contaminations from the surroundings and not as an evidence of disease in the animals. (5) The designation "bacillus" as applied to this group of bacteria and to the exciter of tuberculosis is a misnomer; they are more correctly classified as actinomyces. [T. L. C.]

4.—Miller contributes an article upon the **specific gravity of the urine and the nitrogen elimination in pregnancy**. From the result of his studies he concludes: (1) There is a general and progressive increase in nitrogen and urea content accompanying an increase in specific gravity. (2) The average rate of increment is approximately 0.10 per cent. nitrogen and 0.18 per cent. urea for each increase of two specific gravity numbers. (3) The average variation in both rate of increment and individual value is, however, so large that the specific gravity can furnish only a rough indication of the probable nitrogen content.

[T. L. C.]

THE PRACTITIONER.

June, 1902.

1. Cancer of the Uterus. ARTHUR H. N. LEWERS.
2. Some Recent Points Bearing on the Etiology and Pathology of Malignant Disease of the Uterus. C. HUBERT ROBERTS.
3. Diagnosis of Malignant Disease of the Uterus. FRANCIS W. N. HAULTAIN.

1.—Lewers, discussing **cancer of the uterus**, states that whatever may be the case in the future, the only treatment that offers either prolonged, temporary or permanent benefit is early and complete removal of the diseased tissue by operation. It is not too much to say that when the disease is recognized in the early stage a considerable proportion of the cases may be cured by operation. That cancer of the uterus is a hopeless and uniformly fatal disease is a proposition that has been true in the past, until 25 years ago. If the disease is recognized at an early stage and a sufficiently radical operation can be performed, cure is possible. Lewers, until April, 1899, performed **supravaginal amputation of the cervix** for cancer 33 times and **vaginal hysterectomies** 28 times. Of these cases 8 treated by the supravaginal amputation and 6 treated by vaginal hysterectomy are known to have been free from recurrence from 4 to 15 years. In cases of **vaginal hysterectomy for cancer of the body of the uterus** 5 out of 11 cases are well from 4 to 7 years after the operation. The mortality of the operation itself in his series was 4 per cent., in a total of 73 operations. [T. L. C.]

2.—Roberts presents a careful study of the **etiology and pathology of malignant disease of the uterus**. He devotes especial attention to the recent contributions upon these questions and to his article is appended a most valuable bibliography. [T. L. C.]

3.—Haultain considers the **diagnosis of malignant disease of the uterus**. He emphasizes the importance of every practitioner being on the alert for any clinical features of a suspicious nature and especially the appearance of **uterine hemorrhage, of a metrorrhagic postclimateric type**. The former, when it occurs in a woman between 40 and 50, must always be closely investigated with this origin in view, while the latter, though not quite pathognomonic, must be reckoned of the most serious order. The irregular hemorrhages of the climacteric period must not be discounted as being normal and quite to be expected. Local examination should be practised routinely with a clear conception of the sites of origin and varieties of malignant disease, and, if need be, the uterus dilated and explored or a portion of the suspicious area removed for microscopical examination. The application of a curette to a doubtful area is of the utmost value in diagnosing malignancy. [T. L. C.]

LA PRESSE MEDICALE.

May 21, 1902. (No. 41.)

1. Obstetrics and Christian Morals. J. THOYER-ROZAT.
2. The Treatment of Lithemic Conditions by Oxidation. EDMOND FIQUET.
3. The Prophylaxis and Treatment of Eczema in Infants. A. SCHWAB.

1.—Thoyer-Rozat quotes Moureau and Lavrand, who state, from the purely moral standpoint, that embryotomy upon the living child is always wrong; that induced abortion, even to save the mother, should not be done; nor is laparotomy with extraction of a living or supposedly living fetus justifiable in extra-uterine pregnancy. Naturally these conclusions are practically at variance with the opinions of physicians. But the most religious may escape these absolute rules by the "conscience clause," admitted by the highest catholic authorities, allowing evasion both for the physician and the parturient woman. [M. O.]

2.—On account of their oxidizing power, sodium bicarbonate, arsenic, manganese and iron have a good effect in the **treatment of the lithemic diseases**, gout, diabetes, uric acid gravel, biliary lithiasis, obesity, etc. Therefore it seems that lithemia is a diathesis caused by **insufficient oxidation** in the tissues. Thus alkalies and iron are indicated. [M. O.]

3.—**Eczema in infants** is due to indigestion and may be the result of an auto-intoxication. It generally follows overfeeding. It is rarer in breast-fed than artificially fed babies. In the prophylaxis, feeding should be regular, hygienically and carefully prepared. In the treatment, hygiene, arsenic, iron, alkalies and iodides are indicated. Locally an inert dusting powder is good, baths must be omitted, and a mild salicylic ointment may be given. [M. O.]

May 24, 1902. (No. 42.)

1. The Radical Cure of Prostatic Hypertrophy. J. ALBARRAN.
2. The Influence of Diet Upon Biliary Lithiasis. E. DUFOURT.
3. Iron Nucleinate. J. DUMONT.

1.—Albarran advises **perineal prostatectomy** as the radical cure for prostatic hypertrophy. Retention of urine occurs with increasing hypertrophy, and vesical contractility is temporarily lost. Bottini's operation and suprapubic prostatectomy give uncertain results. Albarran has done 35 perineal prostatectomies with but one death. One of his most successful cases was in a man of 73. In 33 of the cases he performed subcapsular prostatectomy, removing the prostate methodically, piece after piece. Of 31 of these who have been followed since operation, 28 are completely cured, 2 show a marked improvement and one has a recto-urethral fistula, yet to be operated upon. Of these 11 had vesical calculi. He considers cystitis an indication for perineal prostatectomy. [M. O.]

2.—Dufourt reports a case of **hepatic colic** following the ingestion of too much meat taken as treatment for incipient tuberculosis. In the second case, after having generally eaten too much, hepatic colic followed when the patient was really not taking enough nourishment. His observations show that overfeeding or too much meat causes biliary lithiasis. Therefore **diet is important** for such patients, reducing meat and taking carbohydrates and green vegetables preferably, to prevent attacks of hepatic colic. [M. O.]

3.—Dumont reviews Dor's experiments with **iron nucleinate**. Klemperer has obtained good results from its use in chlorosis. Yet further tests are needed to confirm the value of iron nucleinate. [M. O.]

The Etiology and Prophylaxis of Tuberculosis.—In a recent lecture, Professor Proust (*La Médecine Moderne*, August 6, 1902) stated that the hereditary transmission of tuberculosis from father to child was very rare, while that from mother to child occurred much less rarely than was supposed. But no doubt exists that many children are born with a decided tendency to tuberculosis, because the disease had developed frequently among their ancestors. If these children are separated from their families and sent into the country, they are apt to grow up free from tuberculosis. In the prophylaxis, marriage between tubercular persons should be prevented and their children should be sent from them early. While any cause of disturbed nutrition may predispose to tuberculosis, alcoholism is the main predisposing cause of the disease. [M. O.]

Society Report.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting held September 4, the president, Dr. John M. Fisher in the chair.

Dr. Linnaeus H. Prince, by invitation, read a paper on a case of endothelioma of the uterus in a woman of 60. Operation was successfully performed, but the patient became infected and died on the fourteenth day after operation, of peritonitis. The staphylococcus pyogenes albus was found post mortem. The uterus was carefully studied microscopically, and 2 distinct types of neoplasm were recognized. The one occupying the inner area of the uterus was an endothelioma. The second type consisted of a papillary adenomatous growth, typical in structure and arrangement. It is clear that the 2 neoplasms do not change, one into the other, but remain distinct. He noted the rarity of this variety of neoplasm. Dr. C. F. Nassau said that it takes an expert pathologist, one who is spending many hours weekly at the microscope, to tell the difference between perithelial and endothelial growths. Dr. G. G. Ross said that, compared with the rest of the growths in the uterus, it must be difficult to recognize and perhaps that is the reason it is not so common. In closing, Dr. Prince said that endothelioma and perithelioma are rather common in other situations. There is no question about their excessive malignancy. The peculiarity of the history is marked; the duration of the condition for at least 3 years with slight discharge, never hemorrhagic, growing steadily, however, toward an offensive character.

Dr. Edwin Rosenthal read a report of one hundred obstetrical cases. One hundred cases were reported briefly, with a more extended report of cases deemed of more than ordinary interest. He places emphasis upon the nationality and age of the patient, as well as the number of the confinement. There were 17 deaths. There were 2 sets of twins. The majority were head presentations, necessitating the use of the forceps 15 times. Of the 15 cases, 12 were male children and 3 were females. Any suitable case should have the forceps applied if, after a period of 3 hours, no progress whatever was made toward delivery. Douches are only to be used in cases of infection, and then for special purposes. He was always in favor of an anesthetic when any operative procedure was in order, and generally when the pain was great. He prefers leaving the repair of lacerations of the perineum until involution is completed, a period of 2 or 3 months. Dr. John C. DaCosta's cases have been in American women, in whom the heads of the babies have been larger than among foreigners. He also believes that douches, unless for some purulent or similar discharge, should not be used. He has seen hemorrhage follow the administration of ether in obstetric work. Dr. M. M. Franklin thought that the infant mortality mentioned was rather high, which is perhaps due to the foreign nationality of the patients. Repair of the perineum should be made immediately after labor. Dr. J. M. West uses chloroform invariably, believing it to be the safest anesthetic in obstetric practice. In closing, Dr. Rosenthal said that anesthetics should be employed when instruments are applied. The first death that he saw in obstetrics was due to post partum hemorrhage in a woman delivered of twins without a doctor, nurse, midwife or anesthetic. While hemorrhage sometimes follows ether, there is some cause for it other than the ether. Post partum hemorrhages are generally due to something left behind, though ether may produce them. Too much douching is wrong.

Severe Primary Jaundice.—Landrieux (*Le Bulletin Médical*, August 2, 1902) has recently reported a severe case of primary infectious jaundice occurring in a man of 34, a heavy drinker. The attack began with a chill, vomiting of bile, diarrhea, marked jaundice and pain in the right hypochondrium. The jaundice increased, epistaxis occurred and death followed on the eighth day. The autopsy showed universal jaundice and slight fatty degeneration of the liver only. Such cases of grave infectious jaundice are frequently observed at the Lariboisière Hospital, Paris, where alcoholics are treated in large numbers. [M. O.]

Original Articles.

GASTROPTOSIS: A METHOD OF SUSPENDING THE STOMACH IN A HAMMOCK MADE OF THE GREAT OMENTUM.

By R. C. COFFEY, M. D.,

of Portland, Oregon.

Surgeon to and Medical Director of, the North Pacific Sanatorium, Surgeon to the Pacific Railroad.

It is not the purpose of this paper to deal with the literature of this subject, as the ground has recently been fully covered by different authors. Prominent among these papers is the continued article by Byron Robinson, beginning November 30th., in the *Philadelphia Medical Journal*. He treated largely of etiology, pathology and treatment, as well as rehearsing the views of others.

Dr. J. Dutton Steele, of Philadelphia, took up the subject from a medical standpoint, in the *Philadelphia Medical Journal* of January 25, 1902, and rehearsed the literature in quite an extensive way.

Dr. Clarence Webster, in *Progressive Medicine*, gave his views on the subject in 1901. These authors have referred frequently to the work and opinions of other men, and have also expressed their own opinion and experience.

In reading all the literature on the subject obtainable, one is strikingly impressed with the fact that so far nothing has been definitely determined upon, either as to etiology or treatment.

Glenard was, I believe, the first to describe the condition, and he believes that all the displacements of the abdominal viscera are due to the presence of adhesion, which draw the organs from their places by traction upon each other.

Webster, Robinson and others are of the opinion that it is largely due to relaxation of the abdominal walls. Some German authorities are of the opinion that it is a form of neurasthenia. Some have laid great stress on the power of the ligaments of the various abdominal organs, as well as the mesentery, to hold them in place. Some claim that the entire weight of these organs is held by these supports. Personally, I like very much the opinion of Steele, who likens the abdomen to a vessel filled with water: "These organs are suspended by ligaments and mesentery, much the same as a man suspended under water by a small string, which is sufficient to keep his head above water." Others have gone so far as to estimate the amount of the weight that is held by the ligaments, and have estimated it all the way from one-sixth to one-twelfth of the weight of the organs. Therefore, as we have two extremes—one that the ligaments hold the weight of the organs entirely, the other that they hold practically nothing—I think we are safe in assuming a middle ground. Intra-abdominal pressure certainly has much to do with sustaining the weight.

When we come to the study of treatment we find that the method of treatment has varied about as much in idea as etiology. All agree that bandages are of benefit.

Webster, proceeding on the theory that gastroptosis and enteroptosis are due to a weakened abdominal wall and separation of the recti muscles, re-

moves the connective tissue lying between the recti muscles and stitches them together.

Stengel and Beyea shorten the gastrohepatic omentum by a series of ligatures. Others have stitched the peritoneum around the lesser curvature of the stomach to the abdominal wall.

All authors claim fairly good results, but the very tone of their papers, as well as the anatomical reasons for the operation, indicate that so far an absolutely satisfactory method has not been obtained.

I wish, therefore, to report two cases, which I have treated by a method which I believe has not hitherto been touched upon or even hinted at in medical literature. I will report the cases with symptoms, pathology and treatment in detail, in order that the reader may judge of the merits of the operation with a clear understanding.

The cuts with this article represent the cases treated quite accurately.

vere pain in her ovarian region. She had much trouble with her heart and breathing during these years, and more especially before her children were born. Her first child was born in 1892, her second in 1894. After this, breathing was not so much disturbed. During all these years she had occasional attacks of stomach trouble and almost weekly attacks of intolerable nervous headaches. These would sometimes last for six weeks continuously and at times she had severe pain in her back and rectum, as well as in her bowels. Once in a while she would have pain along the esophagus and stomach.

In 1900 she had an attack of what was called la grippe, which "settled in her stomach," manifested by severe pain in her stomach and dragging pain in the esophagus and great distress after eating, without regard to quality or quantity of food. She rarely vomited and was rarely nauseated, but had constant pain and soreness about the abdomen extending almost to the pharynx. The patient was treated by a number of physicians, almost all of them concluding that the case was one of subacute gastritis. The treatment consisted largely in regulating the diet and occasional lavage. She received no benefit from any treatment. Finally she decided to take treatment at a

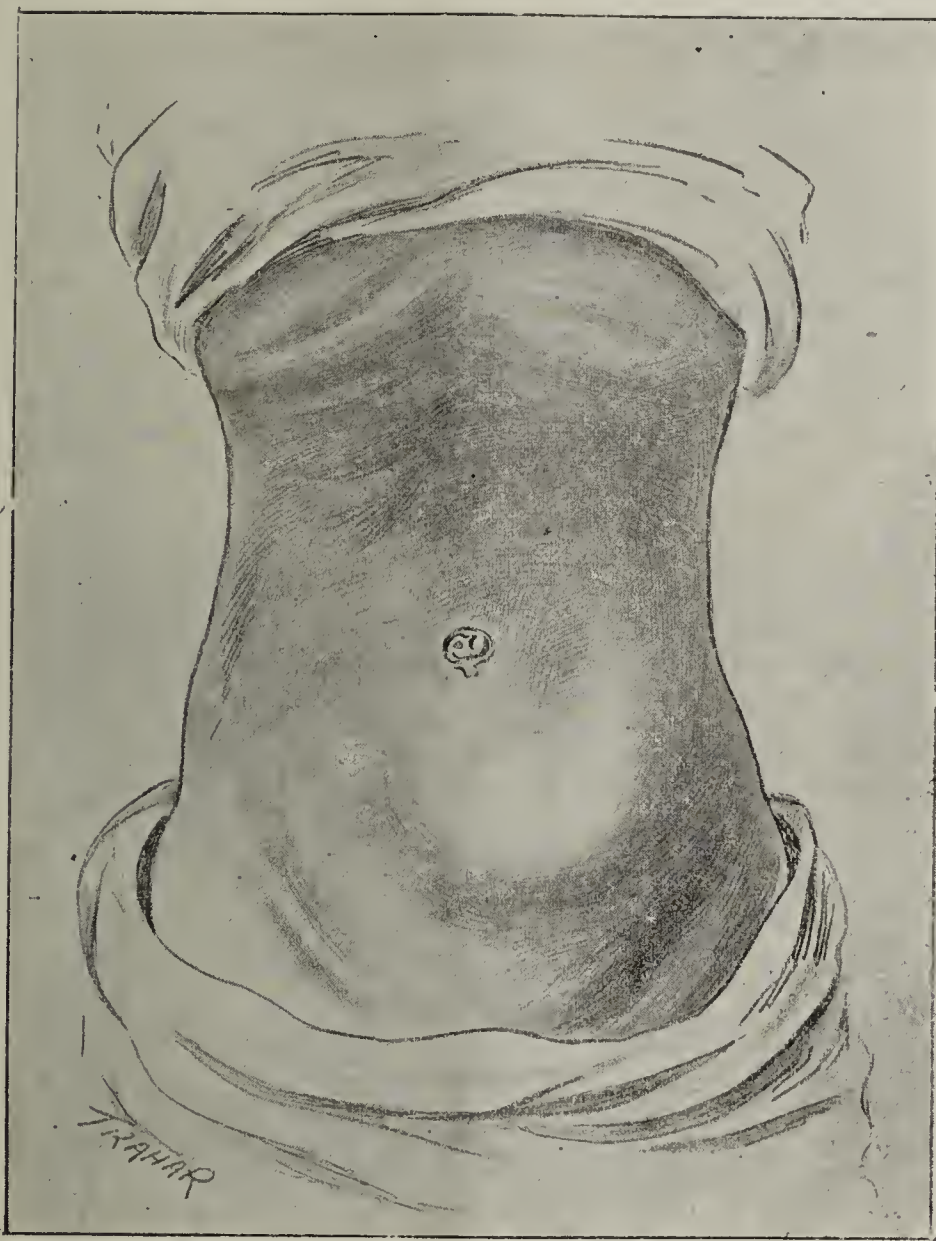


FIG. I. Stomach in Case 1, as it appeared under an anesthetic.

CASE 1.—Patient, a highly cultured lady, aged forty-four. A singer and vocal teacher by profession. Was always sore across the lower abdomen since her first menstruation. Had what was called inflammation of the bowels at sixteen years of age, of which she almost died, two months after she was married. Said to have been due to taking cold at her menstrual period. She had attacks of this kind every few months, with a continued soreness in the bowels even between attacks. Was treated in 1885 for prolapsus uteri. Was treated at various times for "inflammation of the stomach," but kept on her feet most of the time. In 1888 the cervix was dilated and treated for several weeks. From 1888 to 1901, she had attacks of se-

branch institution of the Battle Creek system. She was there very much encouraged and was promised that she would be cured in a few months. She was put on a treatment comprising the rest cure, massage, electricity, baths, etc. She was seemingly much encouraged and was made to believe she had improved, but, after she had properly taken her reckoning, it was found she had not gained in strength, had not, in reality, been improved and she was at this time in a very anemic and wasted condition. When I called to see the patient in October, 1901, I found about the following condition:

Subject of symptoms: Frequent severe nervous symptoms, constant pain in the abdomen and region where the

stomach should be, extending up the esophagus, almost to the pharynx. Frequent and severe nervous headaches, abdominal pain greatly intensified when food of any kind was taken into the stomach. Condition seemingly aggravated at her menstrual period. Menstruation regular. Patient very pale, facial expression distorted, muscles relaxed and in fact presenting the appearance of a victim of a wasting malignant disease. Upon examination the abdomen was found so tender that a thorough examination could not be made, and a digital examination per vaginam revealed a retroflexed uterus, with an adherent ovary back and to the left side of it. The patient was brought to the North Pacific Sanatorium, and a blood examination showed twenty per cent. diminution in hemoglobin. Owing to the great tenderness of the esophagus and stomach, it was found impossible to carry out the usual process for making an extended examination. It was evident that a satisfactory diagnosis could not be reached without an anesthetic, and probably not without an exploratory incision, which was decided upon. As soon as the patient was under the anesthetic, a tumor, represented in cut No. 1, showed up very much as you see it in the drawing. On percussion it seemed rather dull than resonant, so at this point it was impossible to state whether we had an adherent ovarian cyst or a floating stomach. Upon making the incision it was found as shown in cut No. 2. No small intestines were visible. The entire pelvic cavity was tented over by the omentum, which had become adherent by strong adhesions to the peritoneum lining the anterior brim of the pelvis. The lesser curvature of the stomach was almost two inches below the umbilicus. The appendix and cecum were included in the adhesions. The stomach was fixed and could not be brought out of the wound until the omental adhesions had been separated from the pelvic peritoneum. The stomach was then pushed up out of the way. The ovary which was adherent in the cul de sac was removed, the uterus stitched to the abdominal wall and the appendix removed. Then the question arose, how it would be possible to protect the stomach from again

being drawn into the pelvis by a re-adhesion of the omentum, for the tendency of the stomach was to come down into the wound, even though the adhesions had been broken up and the patient was still in the recumbent posture. After talking over the advisability of such procedure with my colleague, Dr. E. P. Geary, who was assisting me, we finally decided to stitch the omentum to the abdominal peritoneum, about an inch above the umbilicus, by passing chromicized catgut sutures through the omentum about an inch below its attachment to the stomach. Three sutures were placed in this case about an inch apart, the line of sutures running transversely. (Cut No. 3). In this way it was found that the stomach was entirely out of the way and that it was firmly in place. The abdomen was closed and the patient put to bed, with the lower extremities elevated. She was much nauseated, but on the very next day expressed the feeling that she had been relieved. The intense pain which had tormented her for the past year was gone. Rectal feeding was used for a little more than three days, after which malted milk and other light liquids were used. By the end of a week egg-nog was given. She was kept in a recumbent position with her head lowered for nearly five weeks, feeling almost entirely well. She was then allowed to get up, and went home during the eighth week. A bandage was fitted and the patient was instructed to lie down an hour after each meal and exercise very cautiously. After she had gone home, it was only a few weeks when I was informed that the patient could eat anything she desired without distress, and that she felt her condition was absolutely cured. I have recently seen the patient and she was apparently in perfect health. She has but little or no disturbance with her digestion, is doing her own house work and, as far as all evidence goes to prove, is permanently cured.

CASE 2.—Patient, thirty-six years old. Well educated. Has never been strong since a girl. Has been troubled more or less with constipation, indigestion and sick headaches all her life. Had a number of attacks of appendicitis, occurring at intervals of three or four months, prior

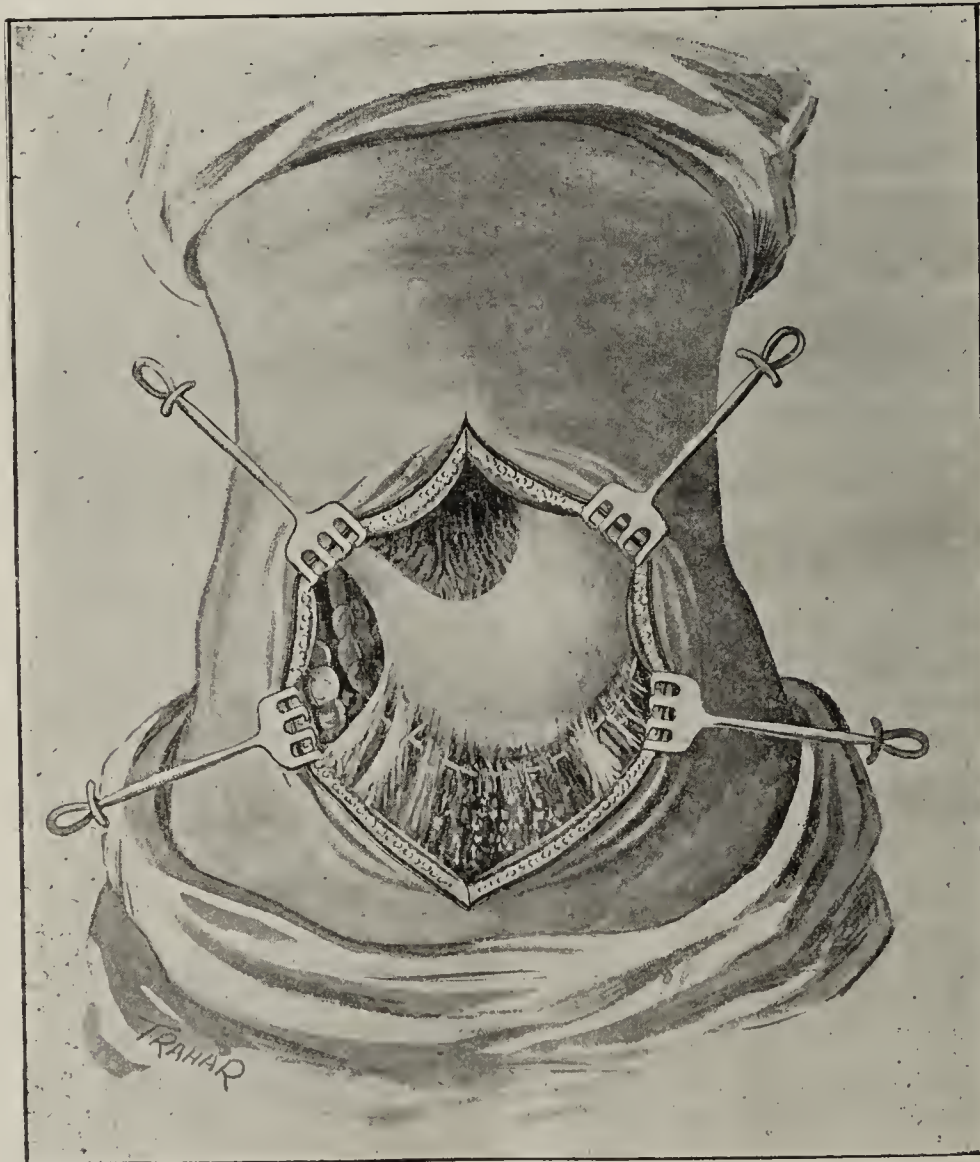


FIG. II. Stomach with attachment of the great omentum to the pelvic peritoneum, also strong fibrous bands. Case -

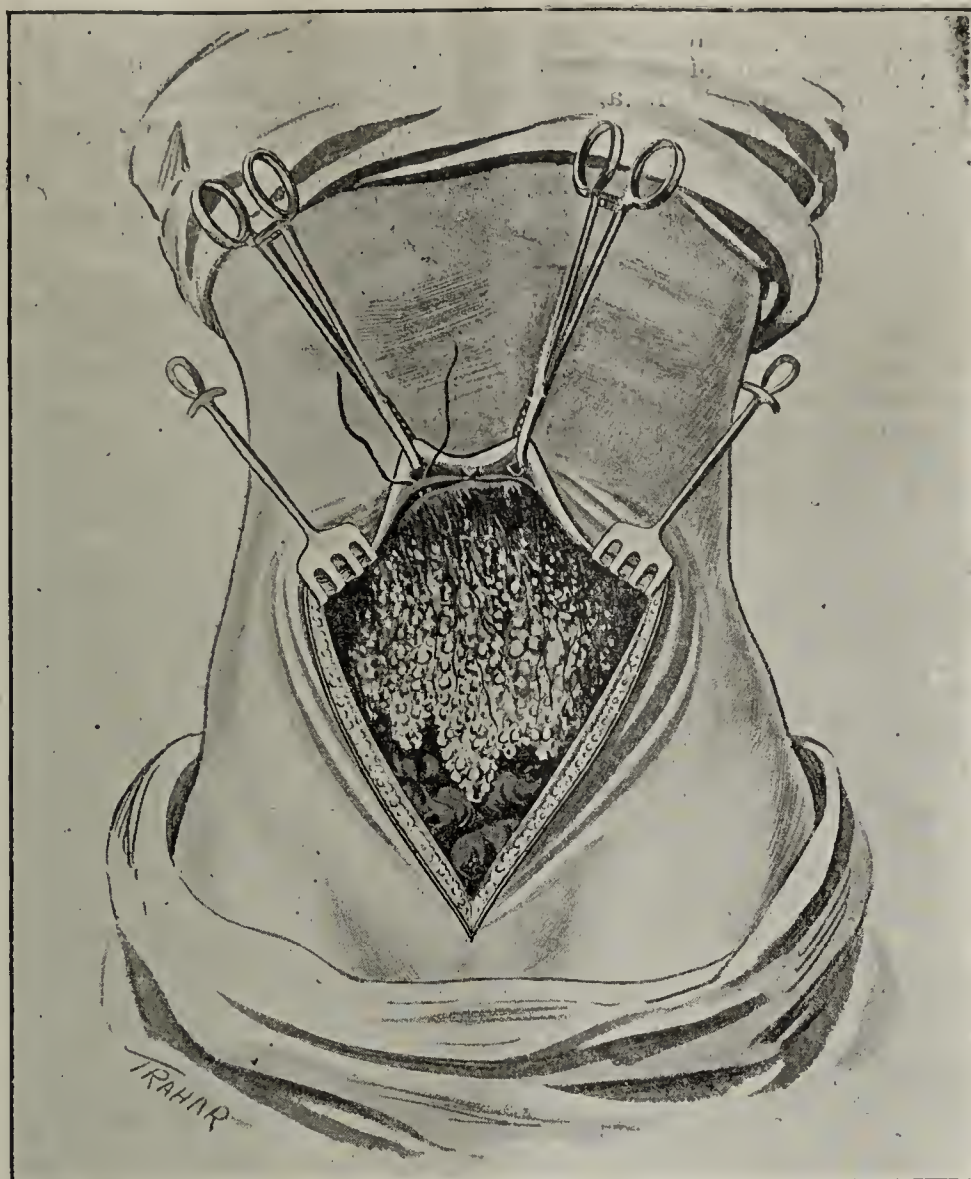


FIG. III. Stomach in place with three sutures placed in omentum.

to the time I saw her, July, 1901. Upon examination at this time I found an extremely relaxed perineum and great tenderness over McBurney's point. In July, 1901, she was brought to the North Pacific Sanatorium, where I operated upon her, doing a ventrosuspension and removing a cyst from each ovary, breaking up some pelvic adhesions and removing the appendix, which was surrounded by dense adhesions, which included the edge of the omentum. These adhesions were broken up and the patient recovered uninterrupted, as far as the operation was concerned, but never felt well. Large doses of cathartic medicine were required. Her digestion was very poor and she did not seem to regain her health as it seemed she should. Three weeks after the first operation I operated for perineal tear and relaxation. The patient left the hospital after about ten weeks and went home, a distance of about four hundred miles. The condition of her bowels and stomach did not improve. Her tongue was constantly coated, her skin not clear, and she found that when she attempted to stand on her feet or walk for any considerable distance she was thrown into an excessively nervous condition, ending up in a violent headache. There seemed to be no soreness in the pelvic region, but considerable over the general abdominal cavity, and especially the region on the right side. She had a considerable amount of distension of the bowels at times and great trouble with her digestion. Each time she would attempt to walk or to take exercise on her feet the same result was produced, namely, excessive dyspepsia with intense headache. Consequently the patient lingered in this condition until May, 1902, when she again returned to the sanatorium, where I examined her again, and this time called in Dr. R. J. Marsh. Nothing definite could be made out. Everything pointed to an obstinate constipation, probably due to an adhesion in the neighborhood of the ascending colon. By percussion it seemed that the stomach was much dilated and lower than normal. Dr. Marsh treated her from the standpoint of a nervous dyspeptic, using massage and systematic exercises, hoping to relieve the condition of the bowels and believing

that this would probably eventually relieve the stomach trouble. The patient, by systematic exercise, finally improved to the point that she could walk ten blocks by taking a long time. These long walks were always followed by an abdominal distension, indigestion and an intensely nervous condition accompanied by a splitting headache. After reaching this point, she finally began to have these attacks more frequently until she became unable to walk any distance without having one of these attacks. Consequently Dr. Marsh and I decided that an exploratory operation would be advisable, which was done in July, 1902. An incision was made from the umbilicus to the symphysis pubis, in order that a thorough examination could be made of the organs. At the upper border of the wound the dilated pyloric end of the stomach protruded, shown in cut 4. The colon was prolapsed below the brim of the pelvis and bent upon the ascending colon, as shown in the cut. The two intestines were held parallel, very firmly together by a dense, tough band of adhesion, making a very sharp angle, as shown in the cut. (Cut No. 4). The omentum was included, and seemingly helped to form the strong band which held the intestines together. The omentum was freed and the adhesions between the two intestines were gradually cut away with the scissors and the denuded surface sewed over with a fine catgut. The stomach still protruded into the wound and was dilated until about twice its normal size. Working on the basis of our other case, we decided to suture the omentum to the abdominal wall as we had done in the previous case, Dr. Geary assisting me in this case also. The wound was held open with retractors. I then proceeded to place eight interrupted sutures across the omentum a little more than an inch below the greater curvature of the stomach, passing the stitches a little less than an inch apart. (Cut No. 5). The wound was closed, the patient put to bed, with the foot of the bed elevated. Rectal feeding was used for four days. Owing to the distress in the stomach and nausea, lavage was used twice daily, for the first three days, at which time nausea ceased and the patient felt perfectly comfortable. On the fifth day she

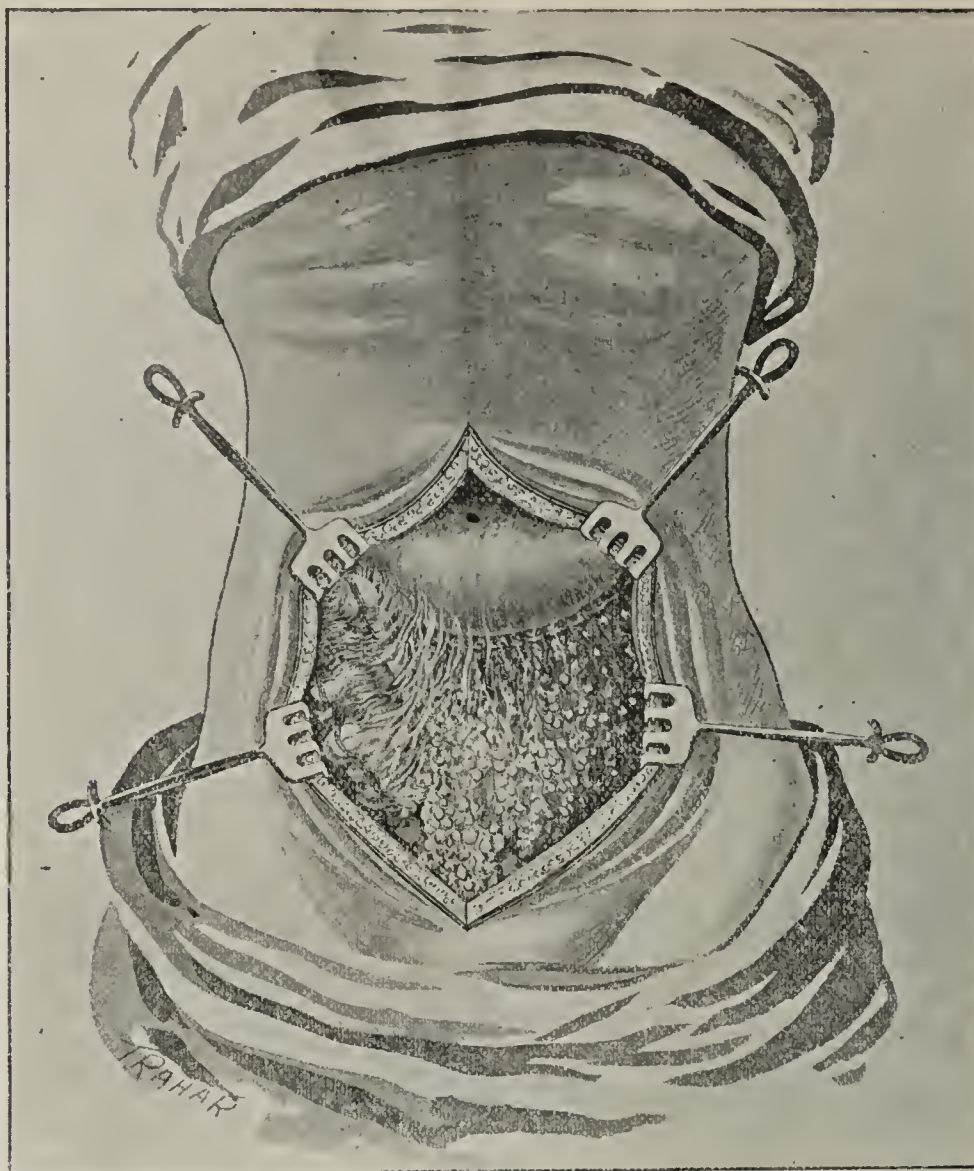


FIG. IV. Stomach of Case II, three inches below the umbilicus. Transverse colon prolapsed and adherent to the cecum.

began to take little nourishment by the stomach, gradually increasing. She expressed the feeling at once that the extreme tension, which she had had for a year, had disappeared, that she felt entirely calm. Very little trouble was encountered in getting the bowels to act. She had no more nervous headaches and no trouble with indigestion. Very little cathartic medicine has been necessary since to keep the bowels regular. The patient is entirely relieved of her abdominal distress and distension. Her skin has cleared up. Her severe headache entirely disappeared. She has changed from a very gloomy to a light and cheerful person. Her tongue is clean and she is able to walk around without producing the extreme nervous condition which was produced by the same actions before the operation. She says she can feel the point across the abdomen where the omentum is attached, but that it is not painful.

The only organs displaced in these cases were the stomach, colon and uterus. All the other organs were thoroughly examined through the abdominal wound and found to be in perfect position.

The cases, to me, have been most interesting; no less from the fact that it is a new method of treating the condition and that the patients have been absolutely cured at once and have never suffered from the trouble from the time the operation was performed until the present day. Neither of the patients have felt any symptoms that have caused them to suspect that their old trouble was returning. Having first obtained clinical results, I have since made a careful study of the anatomy of the peritoneum and have been fully convinced of the rationality of the operation as performed.

First to consider the anatomy. (Cut No. 6.) That part of the greater omentum which hangs in

front of the intestines is histologically composed of four layers of peritoneum, forming a sac, the walls of which are composed of fat, bloodvessels and lymphatics, enclosed in peritoneum inside and out. In the great majority of cases, however, it is impossible to demonstrate the various layers, so that the omentum for all practical purposes is a solid fatty apron, hanging down over the intestines, surrounded entirely by the peritoneum, the anterior and posterior walls of the sac having blended by adhesions. The anterior layer of the omentum is simply a blending and extension of the peritoneum, covering the anterior and posterior walls of the stomach. The posterior layer is in reality an extension of the transverse mesocolon, which comes from the posterior abdominal wall surrounding the colon, again blending the two layers and extending out to meet the anterior layer, which comes off the greater curvature of the stomach. These two layers in childhood, and occasionally in adults, are separated so that the great omentum is practically a sac. In the great majority of cases, however, in adults these two layers become blended and lose the sac entirely, forming a solid apron. This is probably always the case in pathological conditions, such as we find accompanying gastroptosis (Cut No. 7).

The portion of the peritoneal cavity bounded by the stomach in front, the colon and transverse mesocolon below, the posterior abdominal wall behind, and the diaphragm above, is known as the lesser

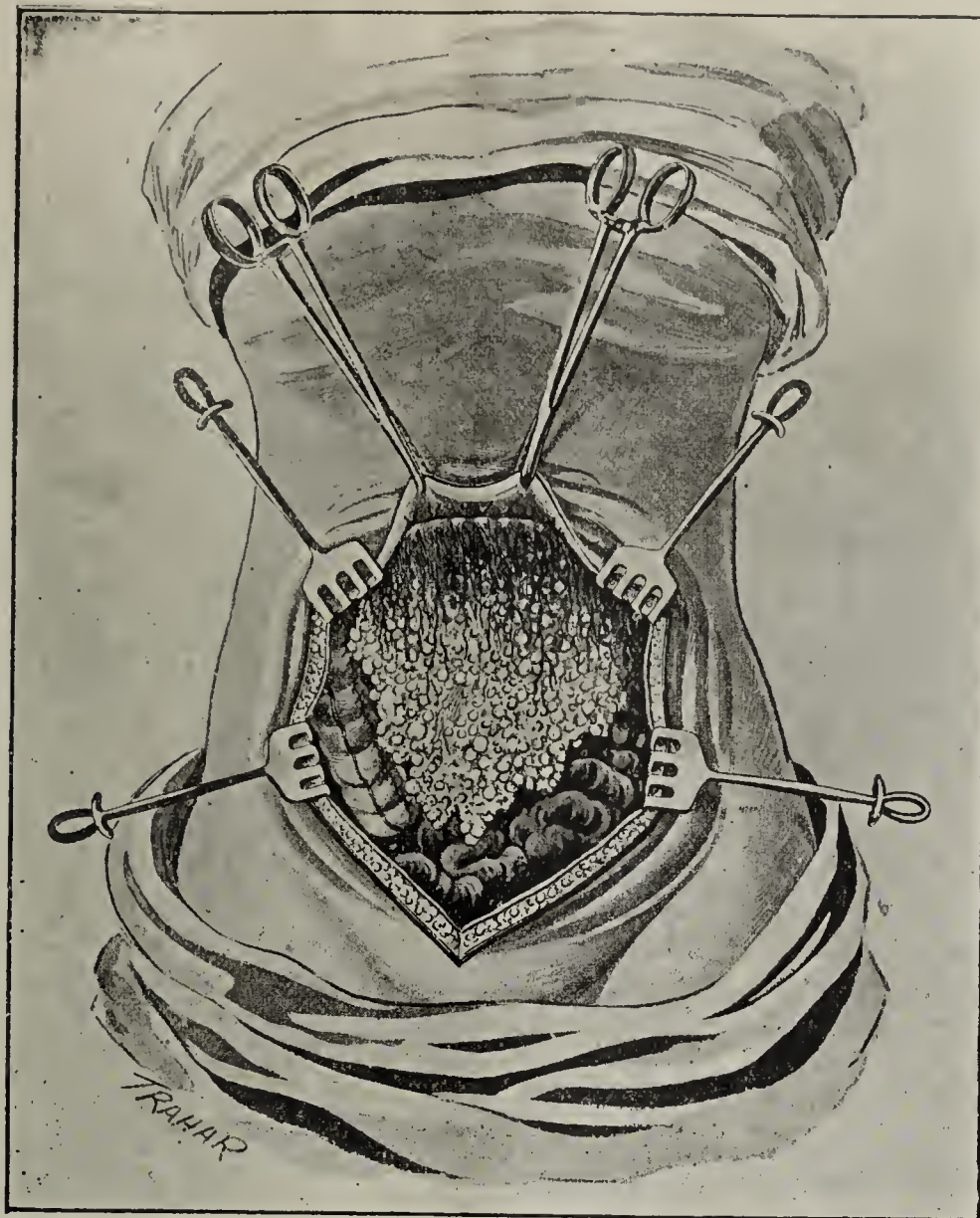


FIG. V. Omentum stitched by eight chromicized catgut sutures. Colon replaced and peritoneum sewed over with fine catgut.

peritoneal sac, connecting with the greater peritoneal cavity through the foramen of Winslow. The space in front of the stomach is naturally in the greater peritoneal cavity.

The supports of the stomach are the gastrophrenic

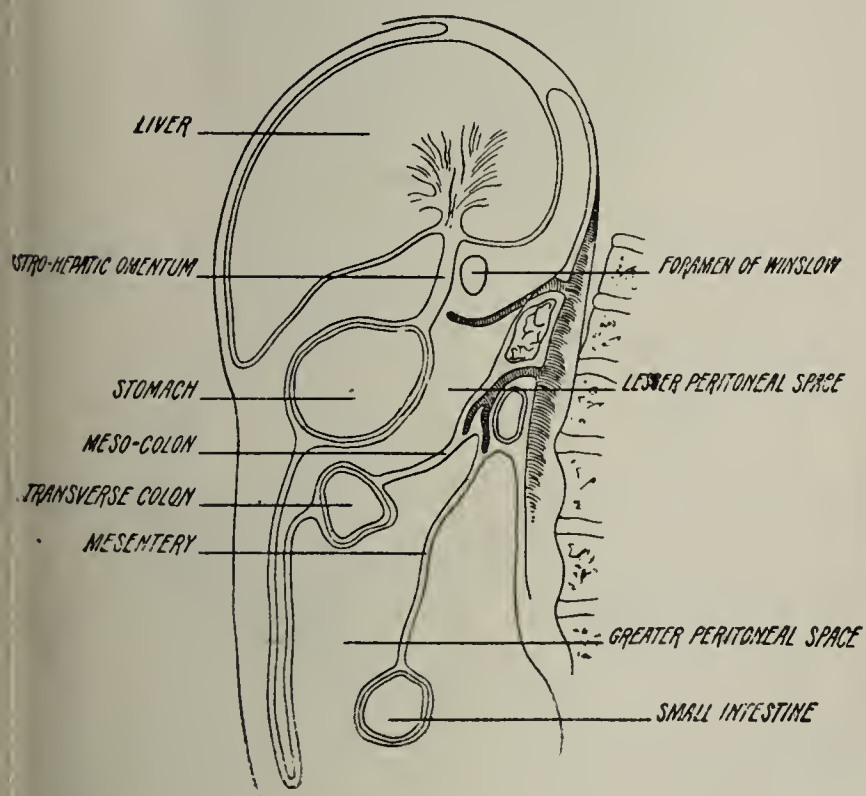


FIG. VI. Peritonéum as shown in Morris' Anatomy.

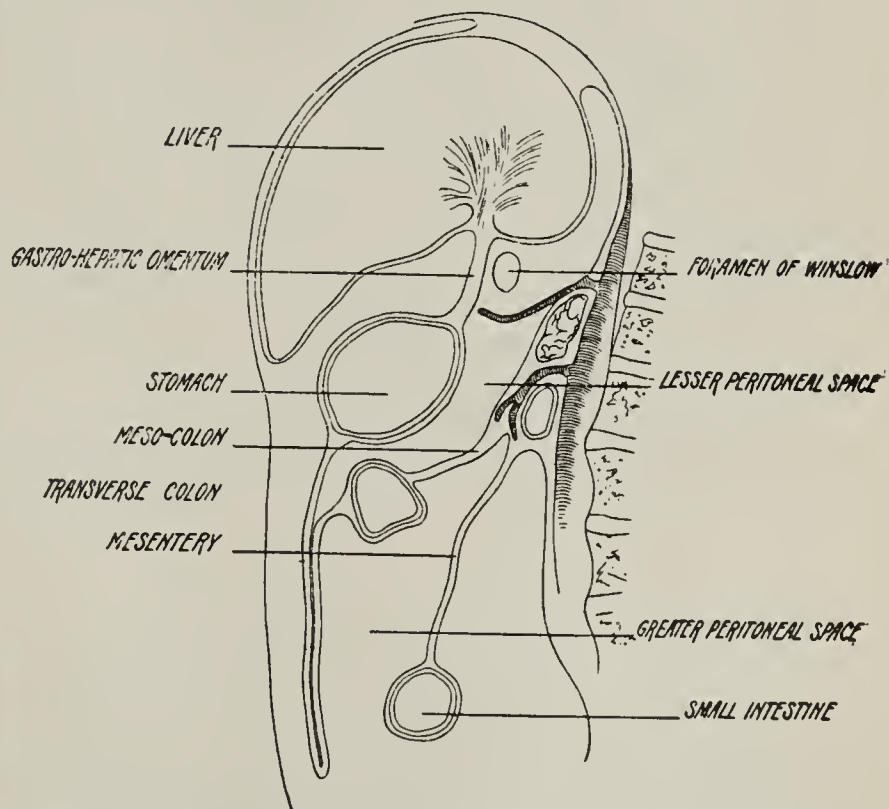


FIG. VII. Peritoneum as it generally exists, and more especially in pathological conditions.

ligaments, the gastrohepatic omentum, the esophagus and the duodenum.

While it is probable that Glenard's theory as to the displacement of the stomach by adhesions is only partially true, I am of the opinion that both

my cases have been at least held in abnormal position by adhesions. It will be seen that the gastrophrenic ligament and gastrohepatic omentum are really all the supports the stomach has, except direct extensions, and these ligaments hold by a direct pull only.

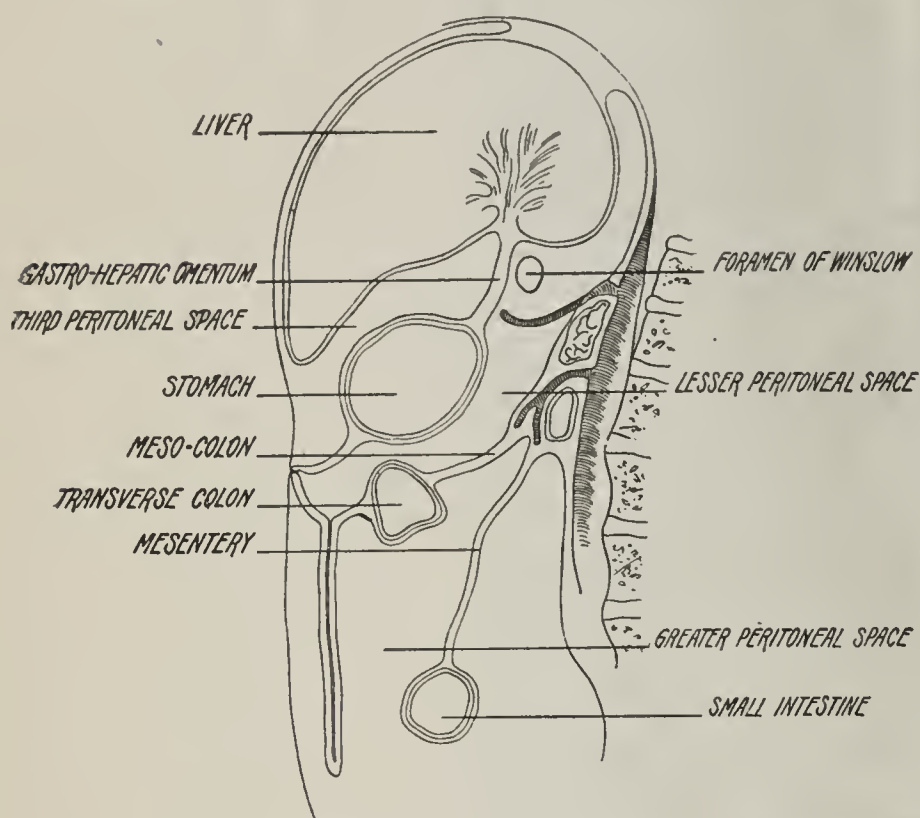


FIG. VIII. Omentum stitched to abdominal wall just below the stomach forming an abdominal septum and a third peritoneal space.

The accompanying diagram (Fig. 8) clearly shows that by the operation performed in these two cases a third peritoneal sac has been created. A partition has been made which to a great extent separates the abdominal cavity into two compartments, one containing the stomach, liver and pancreas, the other the intestines and pelvic organs. The organs above this partition can only fall by stretching the partition and carrying it in front. Thus the stomach is suspended in a hammock, which extends from the back to the front of the abdominal cavity. If the upper supports are not strong enough to hold the loaded stomach, the extra weight is suspended by the hammock made from the great omentum. No amount of adhesion involving the great omentum can henceforth displace the stomach or colon.

The obstruction produced by a displaced stomach dragging upon the duodenum, and producing a sharp angle, causes dilatation, which this operation benefits by allowing its dilated walls to regain their normal tone, relieving the obstruction at the duodenum.

As to the technique, I think this can well be varied to suit the case in hand. If only the stomach is displaced and not much dilated, it will probably be sufficient to put one row of sutures across, about an inch below the attachment of the stomach. If the abdomen is much relaxed and the colon shows a decided tendency toward prolapse in splanchnoptosis, it will probably be well to put two rows of sutures across, penetrating the entire thickness of the omentum just below its attachment to the colon. In this way such a broad line of adhesion will be constructed that it will practically be impossible for the organs to become prolapsed.

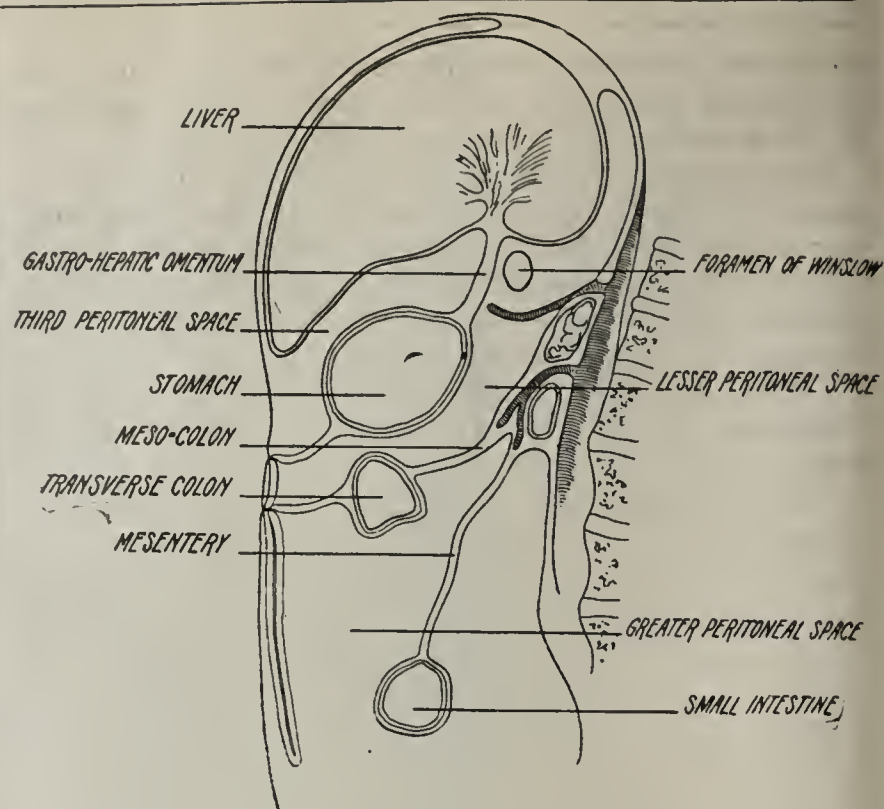


FIG. IX. Omentum stitched both above and below the colon for extreme cases.

In my first case I placed three interrupted chromicized catgut sutures, covering a space of about two inches, near the center of that portion of the omentum attached to the dilated portion of the stomach. In my second case I used eight chromicized catgut sutures, covering a space of a little more than six inches. In case of a very much dilated stomach I would suggest extending the suture still farther, taking in eight or ten inches across the omentum. These stitches have been passed about two and one-half inches above the umbilicus and have been passed from a large longitudinal incision, as shown in the cuts.

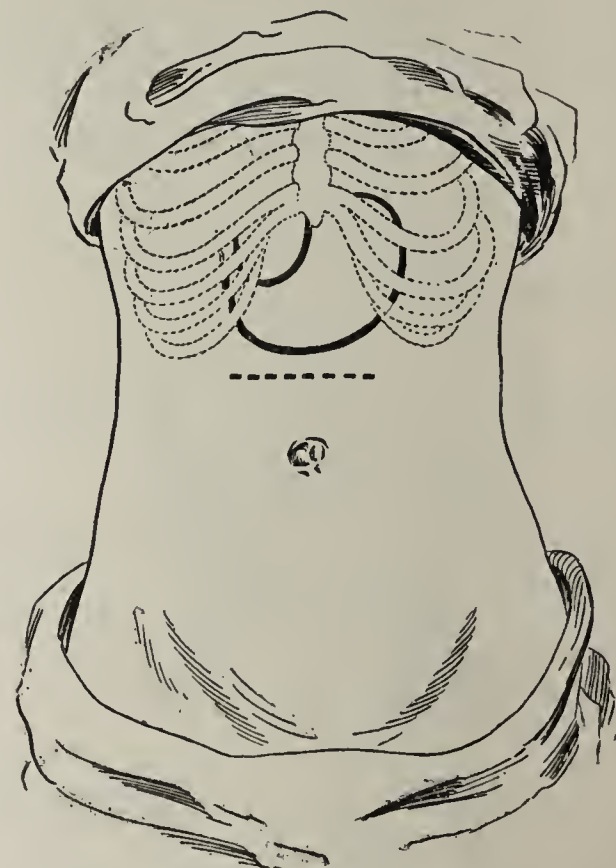


FIG. X. Diagram showing stomach in position and relative position of sutures.

If the operator desires to reinforce his transverse line of sutures, he may very conveniently, in closing the parietal peritoneum, include in his running

stitch the omentum from his transverse line down as far toward the lower line of incision as he might see fit, thus making a "T"-shaped line of sutures.

In operating primarily, for a case of this kind, it would be much more convenient to have the incision higher up. And it might be well, under certain conditions, to throw out an extra incision, somewhat transversely, in order to give greater space for the passing of a long line of sutures.

I take it, however, that an operator will use his judgment at the time as to where the sutures are necessary.

The principal point to be known is that it does not do harm to suture the omentum to the abdominal wall at any point the operator may see fit. I think it a good precaution to avoid omental bloodvessels in placing the stitches, lest sloughing might follow in places. My own conclusions are as follows: Gastropexy is far more frequent than has been suspected. Dilatation is probably in a great majority of cases due to gastropexy, and gastropexy with dilatation, having once begun, produces a weight which its normal direct support will not sustain, so the position increases the dilatation, and the dilatation in turn increases the weight, so that the patient inevitably grows worse.

The operation suggested by suspending the stomach in a hammock adds additional supports, namely, the posterior attachment of the mesocolon and the anterior attachment of the great omentum to the abdominal wall. Both of these attachments are indirect and are capable of holding more than a direct attachment, like the one from above. Dilatation of the stomach, being almost always concomitant with gastropexy, will, in the majority of cases, be relieved by this operation. The transverse colon, being in the folds of the great omentum, cannot be displaced downward, therefore, this operation will greatly benefit, if not entirely relieve, enteropexy by supporting the weight which would otherwise be riding the small intestines into the pelvis. In case of splachnoplexy with a much relaxed abdominal wall or separation of the recti muscles, the operation devised by Webster should be done in closing the abdominal wound. In this way no organ has its motion interfered with by the operation and, as has been shown by the two cases, no pain or inconvenience is produced by the attachment.

I wish to commend this to the investigation of surgeons who have greater opportunities and larger clinical experience, with the belief that the operation has a future and will serve a valuable purpose and relieve the symptoms accompanying such cases.

Chronic Phosphorus Poisoning.—Brouardel (*La Tribune Médicale*, August 6, 1902) recently discussed the occurrence of phosphorus poisoning in men at work in the manufacture of matches. Symptoms only appear in those working in the vapor of white phosphorus. But modern research has shown that necrosis of the jaw only occurs when dental caries existed previously. If the teeth are kept in good condition, chronic phosphorus poisoning is rare. This has been proven by the results now achieved in the French match factories. While enteritis and albuminuria may occur, severe cases of poisoning are seldom seen. Thus the symptoms usually attributed to phosphorus poisoning are really the result of caries and alcoholism. [M. O.]

LITTORAL CALIFORNIA¹.

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of Coronado, Cal.

Fellow of the College of Physicians of Philadelphia and Physician to the Coronado, California, Hospital.

Some confusion arises from the fact that strangers infer that the coast climate of Southern California is one common to the whole vast State line, with but little variation. This, however, is not the case; as a fact, there are three distinct climates on the coast and another, a fourth, on the great inland plain.

We shall barely mention the northern climatic belt, the center of which is at the transverse junction of the mountain chain near the northern border of California and which embraces also the country known as Oregon, Washington, British Columbia, the coast of Alaska and its islands. The central climatic subdivision extends from a point below the northward junction of the mountain chain just described to Point Conception on the coast. It is about here that the mountain chains transversely separate the State, and we are able to describe a northern and a southern California, each with its distinct topography and its very distinct climatic conditions.

Southern California, then, embraces as far as a study of its climate is concerned, all that part of the State below the transverse high mountains about Point Conception. It is with this strip of coast that the present communication is alone concerned; that is, from Point Conception to Coronado. At Point Conception the coast line changes its general direction and runs nearly east, the mountains also run eastward for sufficient distance to protect the country from the north, when they again turn south, offering another protection from the deserts which are east of them.

The trend of the coast and the arrangement of the mountains is the keynote of the charming climate offered by the coast of California of the South. The curve in the coast separates the Alaskan current from the land and the great Japan current, the Kurosiwo, leaves the land at Point Conception and never returns. The coast islands from San Miguel to Coronado Islands and further south off the coast of Baja California (Mexico) materially assist in this separation.

1. The tables and statistics in this paper were prepared by Mr. Ford A. Carpenter, the very competent and courteous official in charge of the weather-bureau in San Diego. As he says, there are few places in the United States with a more complete climatic record than San Diego. This station was prominent among the selected few that telegraphed to Washington the first simultaneous observation November 1st., 1871. In addition to being among the favored ones of the regular weather-service, San Diego has an uninterrupted temperature and rainfall record extending back for half a century. This station was also among the first to be completely equipped with self-recording apparatus. San Diego has had a continuous automatic record of temperature, rainfall, wind velocity, wind direction and sunshine for each moment of time, thus giving data that are absolutely reliable. It is on account of my familiarity with the excellent records of this station that San Diego and Coronado are selected as the type in this paper, but the statements and deductions apply almost equally to the coast of Southern California.

Read before the American Climatological Association, May 9, 10, 11 and 12, at Los Angeles, California.

In order more fully to understand the factors that make the coast climate so delightful, we must for a moment consider the formation of the country contiguous to the coast of Southern California. The general topography of California, more marked in the north, is a double mountain range parallel with the long axis of the State, with large fertile plains and valleys included between them.

In the south this general plan is somewhat modified. While the eastern range, the Sierras, wall the country from the great arid desert plains, the coast range is much lower and no longer shuts out the sea, indeed at some points the whole interior is quite open to the sea, so that the Santa Clara Valley, the valley of the San Buenaventura River, the San Fernando Valley, the San Gabriel Valley, the valley of the Santa Ana River, the San Jacinto River, the Los Angeles River and plains and the San Diego country become a great open coast land backed and protected by the high Sierras.

A newcomer from the eastern country will be somewhat surprised at the designation of plains as applied to these valleys, and he will also be somewhat disappointed at their size; the first effect will probably be one of smallness and narrowness as compared with his homeland valleys, but their size is greatly increased by the hilly uplands into which they insensibly merge; this is most noticeable in the great upland plain of the San Jacinto, south toward San Diego.

As Lindley and Widney say "The Sierra, which north of the Mojave Desert makes a great curve westward around the south end of the San Joaquin plain of the central belt, turns southward again opposite Santa Barbara and Ventura counties and, doubling back upon its course, walls in the west end of the desert, then turning directly eastward, separates the desert from the Los Angeles and San Bernardino plains. Turning southward again, it stands as a wall between the Colorado desert and that portion of Southern California lying west of its base." The range varies in height from five to seven thousand feet.

Unlike the northern and central portion of this chain it breaks down in the south, at several points, into low passes between the coast and the interior. "The pass by which the Central Pacific crosses the Sierra is 7017 feet in elevation. Yet the Soledad Pass, by which the Southern Pacific crosses the Sierra in Southern California, is only 2822 feet; the Cajon Pass, by which the Santa Fé enters, is about the same height. There are numerous other comparatively low passes through the Sierras at the west end of the Mojave Desert, leading toward the sea in Ventura and Santa Barbara counties, and

also through the range south of San Gorgonio. These passes through the southern Sierra have a marked influence not only upon the climate of the coast portion of Southern California but also upon that of the deserts lying at the base of the Sierra."

This, then, is the wide expanse of country that we must study when we are considering the climatic peculiarities of the coast of Southern California.

Rainfall.—The wet and the dry seasons are not hard-and-fast divisions of time. The first rain may occur in early October or middle November, or it may not come until December; it is usually over by April, so that December, January and February have the heaviest fall.

The average coast rainfall for two of the coast cities, Santa Barbara and San Diego, is illustrated by the following table from the government records, covering a period of twenty-four and forty-two years respectively. Each rainy season is a rule unto

Rain	November	December	January	February	March	April	May to October	Length of record
Santa Barbara	1.6	3.9	3.7	3.8	2.1	1.4	1.3	Twenty-four years.
San Diego . .	1.0	2.1	1.6	2.1	1.0	1.0	1.0	Forty-two years.

itself. It may be one of constantly recurring rains day after day until, as I have seen it, seven inches have fallen in a month, or the rains may be light, interspersed with a long period of almost constant sunshine. While, of course, the records shown are valuable, still they do not help us at all to predict for future rain probabilities. The last several years have been those of very deficient rainfall, indeed very far below the average determined by the government records for many years preceding. This, however, is not altogether unusual, as San Diego, for example, with a normal rainfall of about ten inches (9.58) has had a minimum of 3.02 (1863) and a maximum of 27.59 (1884).

The coast fog, about which so much has been written, is most frequent during the months of April, May and June. The fog bank usually rolls in about nightfall and disappears a few hours after sunrise. About nine o'clock in the morning the coast is usually free from fog. During these months there are a few days, however, when the fog is more persistent and a fine mist lasts until half-past twelve or one o'clock; but this happens only perhaps on a half-dozen days in the year.



Chart of Seasonal Rainfall of San Diego, California.

In the table below will be found the following data: "A"—Greatest monthly precipitation and date. "B"—Least monthly precipitation and date. "C"—Number of times monthly precipitation has exceeded the normal for fifty-two years.

Table "A"	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Year . . .	1895	1884	1867	1878	1884	1850	1865	1873	1861	1889	1860	1889
Amount .	7.33	9.05	7.88	2.91	2.17	0.68	1.29	1.95	1.59	2.12	2.88	7.71
Table "B"	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Year . . .	†1850	†1885	†1857	†1864	†1850	†1852	†1850	†1850	†1850	†1853	†1872	1900
Amount .	0	0.02	0	0.01	0	0	0	0	0	0	0	0
Table "C"	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total . .	17	18	21	18	16	11	8	10	7	15	21	16

† Also in other years.

Total number of days on which precipitation has fallen since November 1, 1871.

	January	February	March	April	May	June	July	August	September	October	November	December
Less than 0.01	19	22	42	17	44	18	11	17	15	26	15	22
0.01 to 0.10	74	72	83	58	80	31	4	10	15	38	43	64
0.11 to 0.25	33	34	33	36	8	3	0	1	2	24	20	35
0.26 to 0.50	38	20	43	16	8	0	0	2	1	3	16	30
0.51 to 1.00	20	22	21	10	5	0	0	0	0	4	10	20
Over 1.00 inch	14	11	5	1	2	0	1	0	0	1	2	13

No snow is reported to have fallen at San Diego since the beginning of the record of observations in 1850.

Maximum rate of rainfall from recording rain-gauge; record since 1893: December 28, 1896, in 1 minute, 0.19; in 5 minutes, 0.32; in 10 minutes, 0.47; in 1 hour, 0.79.

Greatest precipitation in 24 hours for each month.

YEAR	January	February	March	April	May	June	July	August	September	October	November	December	Greatest Annual
1872 . . .	0.53	1.12	0.29	0.15	0.10	0.00	0.00	0.09	0.00	0.00	0.00	0.53	1.12
1873 . . .	0.20	1.25	0.05	0.10	0.02	0.00	0.00	1.80	0.00	0.00	0.34	2.52	1.80
1874 . . .	1.35	1.24	0.28	0.33	0.21	0.00	0.00	0.00	0.10	0.18	0.31	0.55	1.35
1875 . . .	0.95	0.35	0.30	0.11	0.08	0.02	0.00	0.21	0.29	0.00	0.52	0.32	0.95
1876 . . .	0.35	1.53	0.80	0.05	0.05	0.05	0.03	0.06	0.03	0.06	0.03	0.10	1.53
1877 . . .	0.41	0.18	0.52	0.16	0.20	0.00	0.00	0.00	0.00	0.78	0.06	1.09	1.09
1878 . . .	0.55	1.11	0.36	0.82	0.28	0.07	0.00	0.00	0.00	0.96	0.00	0.58	0.96
1879 . . .	1.53	0.80	0.05	0.17	0.00	0.07	0.00	0.00	0.00	0.16	2.75	2.55	2.75
1880 . . .	0.31	0.82	0.44	0.38	0.06	0.06	0.07	0.28	0.00	0.48	0.17	1.29	1.29
1881 . . .	0.29	0.18	0.83	0.70	0.02	0.05	0.00	0.01	0.04	0.21	0.07	0.19	0.83
1882 . . .	2.94	0.99	0.55	0.13	0.17	0.05	0.00	0.00	0.01	0.21	0.31	0.11	2.94
1883 . . .	0.98	0.43	0.19	0.18	0.69	0.08	0.00	0.00	0.00	1.82	0.20	0.63	1.82
1884 . . .	0.92	1.89	1.71	1.01	1.45	0.24	0.00	T	0.07	0.23	0.10	1.66	1.89
1885 . . .	0.20	0.01	0.56	0.80	0.54	0.04	T	0.13	0.00	0.21	0.59	0.48	0.80
1886 . . .	1.76	0.60	1.38	1.20	0.02	0.04	T	T	0.00	0.05	0.74	0.06	1.76
1887 . . .	0.04	1.95	0.02	0.94	0.44	0.04	0.01	T	T	T	1.80	0.74	1.96
1888 . . .	0.75	0.60	1.25	0.08	0.15	0.04	0.01	T	0.04	0.20	0.60	1.04	1.25
1889 . . .	0.67	0.95	1.16	0.14	0.02	0.10	T	0.04	T	1.54	0.08	2.31	2.31
1890 . . .	1.32	1.04	0.35	0.03	0.04	0.00	0.00	T	0.37	0.01	0.72	1.23	1.32
1891 . . .	1.08	1.35	0.17	0.55	0.34	0.05	T	0.00	0.08	0.02	0.09	0.69	1.35
1892 . . .	1.25	1.25	0.34	0.41	0.95	0.13	0.00	0.04	T	0.10	0.82	0.43	1.25
1893 . . .	0.45	0.43	2.00	0.22	0.22	T	T	0.00	0.00	0.11	0.81	0.74	2.00
1894 . . .	0.20	0.15	0.65	0.06	0.08	0.01	0.00	0.04	0.01	T	0.00	0.59	0.65
1895 . . .	2.15	0.29	0.70	0.08	0.15	0.00	0.00	0.00	0.01	0.22	0.46	0.15	2.15
1896 . . .	0.57	0.02	1.32	0.12	0.03	0.01	T	0.09	T	0.64	0.88	1.10	1.32
1897 . . .	1.62	1.04	0.55	0.02	0.04	T	0.01	T	T	0.67	0.02	0.17	1.62
1898 . . .	0.55	0.06	0.47	0.09	0.26	0.02	0.00	0.00	0.06	0.00	0.11	0.71	0.71
1899 . . .	1.33	0.24	0.52	0.28	0.07	0.25	0.00	0.07	0.00	0.20	0.42	0.54	1.33
1900 . . .	0.66	0.03	0.48	0.79	1.35	0.05	0.00	T	T	0.20	0.52	0.00	1.35
1901 . . .	0.74	2.39	0.53	0.01	0.52	0.02	T	T	0.06	0.22	0.41	0.01	2.39
1902 . . .	0.54	1.16	0.40	0.20	0.05	T							

Dates when precipitation equalled or exceeded 2.50 inches in any consecutive 24 hours.—Local time.

December 4th, 1873, 10 P.M. 3d, during night 4th.	2.52 inches
November 9th, 1879, during A. M. 9th to 8.10 P.M. 9th.	2.75 inches.
December 27th, 1879, 6 A.M. to 6 A. M. December 28th.	2.55 inches.
January 12th, 1882, 3.50 A.M. to 3 A.M. January 13th.	2.94 inches.

Here again, in the matter of fogs, does Southern California show its own peculiarities, for, as Solly says (page 308), owing undoubtedly to local conditions Los Angeles is more subject to fog than San Diego; he gives some statistics showing year by year a greater number of fogs at this inland station than on the coast. Last year Coronado and San Diego had two hundred and ninety-one clear days. Eastern maximum sunshine occurs in the summer,

in Southern California in the winter; again the east has its cloudy weather in the winter, we have ours in the summer.

Number of days with one hour or more of fog, and number of thunder-storms in 10 years. Record began January 1, 1890.

	January	February	March	April	May	June	July	August	September	October	November	December	Sum
Total number of foggy days	17	13	9	15	2	6	4	3	18	22	15	10	116
Average	2	1	1	2	0	1	0	0	2	3	2	1	14
Total number of thunderstorms	0	2	1	1	1	0	2	3	0	6	0	1	17
Average	0	0	0	0	0	0	0	0	0	1	0	0	8

As will be seen by the accompanying table, the relative humidity at the coast is about 70 per cent. (72 per cent.); this is over four grains of vapor to each cubic foot of air.

Monthly relative humidity (per cent.) for a period of 31 years. Record began January 1, 1871.

	January	February	March	April	May	June	July	August	September	October	November	December
A. M.	72.9	77.6	81.2	82.2	82.5	84.3	85.9	85.4	84.7	81.3	72.4	75.0
P. M.	73.0	73.5	73.9	73.4	74.8	75.9	76.4	76.4	78.0	76.2	72.8	72.9
Average	73.4	75.6	77.6	77.8	78.6	80.5	81.2	80.9	81.4	78.8	72.6	72.9

Carpenter very aptly remarks that the oft-repeated statement, "driest marine climate," as applied to San Diego, is not sufficiently explained. Why is our humidity so much less than that of Seattle or Santa Barbara, for example? We find the explanation in these two circumstances: Distance from the average storm track and nearness to the desert. Our humidity is as constant as our temperature, and plays a very important part in the excellence of this climate. So long as the temperature is between 55 degrees and 65 degrees (and that is about half the time), the humidity is always 70 per cent. Whenever the temperature increases, the amount of moisture naturally decreases, for the capacity of the air for holding vapor is correspondingly decreased. Strange as it may seem, this is also true of the other extreme in temperature in this desert-sea climate, so the winter cold is a dry cold as well as the summer heat is a dry heat. Solly concisely puts it when he says that, in order to have a general knowledge of the climate of Southern California, we must remember

that the coast is cool and moist and the interior hot and dry ; “it should be thoroughly understood by the eastern visitor in search of health that if he seeks more days of sunshine and opportunities for outdoor life, with a more equable temperature and an average humidity a little greater than that of New York or Boston, he can find what he wants at Santa Barbara or San Diego,” or Coronado.

The wind movement is moderate, the yearly average is about 5.6 miles per hour. During the day the wind blows from nearly every point of the compass. The coast clearly shows the phenomenon of land and sea breezes as the air, warmed by the earth, rises and creates a draft from the cooler sea, so that by about nine o'clock the breeze commences and increases until about 2 P. M., when it is blowing at about the average rate of 12 miles an hour. At or about sunset this westerly wind dies down, the land cools and a current of air starts toward the warmer sea.

Average hourly wind velocity. Record began January 1, 1873.

	January	February	March	April	May	June	July	August	September	October	November	December
A. M., 1 . . .	3.8	4.0	3.7	3.6	3.5	3.1	2.7	2.5	2.6	2.7	3.1	3.6
2 . . .	3.8	4.1	3.8	3.6	3.4	3.1	2.5	2.3	2.6	2.7	3.2	3.8
3 . . .	3.8	3.9	3.8	3.6	3.4	3.0	2.4	2.2	2.6	2.9	3.3	3.9
4 . . .	3.9	4.0	3.8	3.5	3.4	3.1	2.4	2.3	2.7	2.8	3.2	3.9
5 . . .	4.0	4.1	4.0	3.6	3.4	3.2	2.5	2.3	2.7	2.9	3.4	3.9
6 . . .	4.1	4.1	4.0	3.6	3.5	3.2	2.6	2.4	2.7	2.9	3.5	3.9
7 . . .	3.9	3.9	4.0	3.7	3.6	3.2	2.6	2.3	2.8	2.9	3.4	3.9
8 . . .	3.9	4.1	4.0	3.7	3.4	3.2	2.7	2.4	2.7	3.2	3.5	3.8
9 . . .	3.9	4.1	4.0	3.7	3.3	3.2	2.8	2.5	2.8	3.1	3.6	3.9
10 . . .	4.0	4.2	3.8	3.5	3.6	3.4	3.1	2.6	2.8	3.0	3.5	4.0
11 . . .	3.7	4.0	3.7	3.9	4.3	4.1	4.0	3.4	3.2	3.0	3.1	3.9
Noon, 12 . . .	3.3	3.8	4.3	4.8	5.6	5.6	5.7	5.0	4.6	3.8	3.1	3.4
P. M. 1 . . .	3.5	4.7	5.6	7.0	7.8	7.7	7.7	7.1	6.7	5.5	4.4	3.9
2 . . .	4.5	5.9	7.0	8.7	9.0	9.2	9.1	8.9	8.7	7.4	5.8	4.9
3 . . .	5.9	7.5	8.5	9.9	10.0	10.0	10.1	9.9	10.0	9.0	7.4	6.4
4 . . .	7.3	8.8	9.5	10.5	10.5	10.5	10.3	10.2	10.5	9.6	8.7	7.6
5 . . .	8.0	9.6	10.0	10.6	10.5	10.5	10.3	10.2	10.4	9.8	9.1	8.3
6 . . .	8.3	9.7	9.9	10.3	10.3	10.1	10.0	9.8	9.9	9.4	8.7	8.0
7 . . .	8.1	9.2	9.4	9.6	9.6	9.4	9.3	9.2	9.0	8.4	7.6	7.0
8 . . .	6.7	8.0	8.5	8.7	8.8	8.6	8.4	8.3	8.0	6.8	5.7	5.5
9 . . .	4.9	6.1	6.9	7.4	7.5	7.4	7.5	8.3	6.3	4.8	3.9	4.3
10 . . .	4.0	4.6	5.1	5.7	6.1	6.0	6.1	7.1	4.8	3.5	3.2	3.8
11 . . .	3.8	4.0	4.1	4.5	4.9	4.9	4.7	5.4	3.6	3.0	3.1	3.8
Midnight, 12,	3.8	4.0	3.8	3.8	4.0	3.8	3.6	4.1	3.0	2.6	3.1	3.8
Average . .	4.8	5.4	5.5	5.9	6.0	5.8	5.5	5.4	5.2	4.8	4.6	4.7

Total number of high winds in 31 years. Record began January 1, 1873.

	January	February	March	April	May	June	July	August	September	October	November	December	Annual Average
Velocity 25 to 30 miles	8	8	11	8	3	0	3	1	1	4	5	11	2
Velocity 21 to 40 miles	11	8	6	3	0	0	0	0	0	1	2	4	1

Highest Wind Velocity, direction and date for each month, during the past 29 years. Record began January 1, 1873.

MONTHS	Velocity	Direction	Day and Year
January	37	*	* 1873
February	40	nw.	* 1878
March	37	*	* 1876
April	39	*	* 1877
May	28	*	* 1877
June	24	sw.	11, 1886
July	30	nw.	2, 1881
August	25	sw.	3, 1900
September	28	nw.	7, 1881
October	32	nw.	29, 1877
November	32	nw.	†12, 1877
December	36	nw.	§ 2, 1887

* Direction and date missing. † Also on November 21, 1886. § Also west, on December 23, 1888.

As I have said elsewhere¹, a great deal that is misleading has been written about the climate of Southern California. Its charms have been exaggerated and its drawbacks either passed over in silence or painted in glowing and attractive colors. The simple truth about California of the south is quite good enough. It is a fact that here is to be found the best yearly climate in the world. Other localities have as good or perhaps a better climate than ours at their best, but certainly none of them have this happy condition the year round as we do on the coast. A striking peculiarity, and one leading to much confusion, is the great diversity of climate in this country and the different climatic conditions found in even one day's journey. At the lower stations the various climates all have the peculiar charm of California's equability. This equability is most remarkable. In San Diego, from 1875 to 1901, 9861 days, there were 9545 days of temperature not above 80 degrees nor below 40. degrees.

(To be Continued.)

1. Two Health Seekers in Southern California, Edwards & Harraden. J. B. Lippincott Co., Philadelphia.

IS DISEASE TRANSMITTED TO MAN THROUGH
MEAT AND MILK?*

By D. M. McMASTERS, M. D.,

of Ridley Park, Pa.

Mr. President:—We are following closely in the train of the bacteriologist. We are influenced and guided by his keen, shrewd judgment and his penetrating macroscopic and microscopic eye. As the stonecutter chips the block, making true the angles and curves, and passes it on to the stone mason to fit it into its proper place, and as the brickmaker moulds his clay into the perfect brick and passes it to the bricklayer to build and complete the house, so we take up atom by atom as it comes to us and apply it practically. The question of great import to-day is: Do meat and milk give health and life, on the one hand, and breed disease, on the other? While they are building up on one side, are they, at the same time, pulling down on the other? In the light of the present day we are forced to answer yes. Not many years past pork was the point of contention. When it was found that heating it to a certain point destroyed the parasite, we seemed to rest contentedly there. I presume we rest more contentedly, as the majority of cases of trichiniasis occurred in people who ate the pork in an uncooked, or partially uncooked, condition. As pork is a meat which requires to be well cooked and is done so by the majority of people, and as only about 8 per cent. of hogs slaughtered in Chicago have the trichina parasite, it has taken a secondary place in the category of the transmission of disease by animals to man, so far as trichiniasis is concerned.

The great and important questions of to-day are the following:

1. Is bovine tuberculosis transmitted to other cattle?
2. Is it transmitted to other animals?
3. Is it transmitted to man?
4. What is the remedy?
5. What is our duty in the premises?

Regarding the transmission of tuberculosis from cattle to cattle, I think we can dismiss it with the assertion that all authorities agree on that point. It is thus transmitted. Jno. J. Repp, V. M. D., of Ames, Iowa, Professor of Pathology and Therapeutics and Veterinarian in the Experiment Station, Iowa State College, states that in forty-seven animals, of different species, inoculated, ten had tuberculosis. In one hundred and one animals fed meat from tubercular cattle, sixteen contracted the disease. This, I think, is proof enough that bovine tuberculosis can be transmitted to animals of different species. Is it transmitted to man? Villeman says that in the Great Steppes of Russia the Kirghiz are almost wholly without tuberculosis. Dr. E. R. Brush, of Mount Vernon, N. Y., says in regard to the same people: "One simple fact that strengthens my belief

that human bacillary tuberculosis is all derived from bovine tuberculosis is, that, where this animal does not exist, pulmonary consumption is not known." "The Kirghiz on the Steppes of Russia, who have no cows, have domesticated the horse, using its meat, milk and skin, and a case of pulmonary tuberculosis has never been known among the tribe."

"The Esquimau has no cows, neither has he pulmonary phthisis, and I think that it can be laid down as a fact that, where dairy cows are unknown, consumption is unknown."

In the attempt to stamp out tuberculosis in cattle it seems to be of such magnitude that we are staggered. If it be true that the tubercular conditions of man are due to the animal, why should we hesitate, notwithstanding the undertaking should apparently overwhelm us? Look at the hundreds dying yearly from tuberculosis in some form or other, and we stand idly by and accept the issue as a matter of course. Let an epidemic of diphtheria, scarlet fever or smallpox come upon us and we are moved to action at once. The deaths from all three combined will be but a circumstance in contrast to the number dying yearly from tuberculosis. Let our monetary system be in danger and we are aroused to action at once. These same men, from a sanitary point of view, are positively careless and allow the dear ones of the household to be plucked, and do nothing, when it is in their power to do all things for the banishment of the disease. The undertaking will be stupendous, arduous and, at first, expensive. With perseverance, hard work and money it can be done. Erect less expensive public buildings, let education, awful as it might seem to be, stand aside for a while; let our religion be, not to build expensive churches and worship therein but worship our God in protecting these temples of the soul, these bodies of ours which we are expected to keep in perfect trim. The expense would not be so great as might be expected from the fact that tuberculosis is found principally in the dairy. The beef-cattle are comparatively free and, when the disease is found in them, it is not of such a degree as to prevent the use of the meat for food. This is particularly the case when, in cooking, it is brought to at least 155° F. Again, the tubercle bacillus must have made its way into the tissues used as food to make it positively harmful to man. In the dairy young and old alike are the subjects, for all partake, in some form or other, of the products of the dairy. The cattle of the dairy, while many, the number is small in contrast to the number slaughtered for food. The mountain of expense is reduced considerably on that score, yet it is still great and, for a few years, will be great, but yearly will grow less and less. With this growing less and less in expense we will be blessed with fewer and fewer deaths. The mountain will now be reduced to a molehill. Life will be prolonged. There will be fewer deaths. Expense will be lessened and, at the same time, less sorrow and greater happiness will abound. Is this not worth all the trouble? The origin for good or evil is in the dairy, as far as milk and its products are

*Read before Delaware Co. Medical Society, March 13, 1902.

concerned. To remedy the evil that begins there, we must begin at the dairy. All the care bestowed upon milk after it leaves the dairy can be but to prevent the increase of evil, to prevent the increase of bacteria. If this can be done, much is accomplished. How much better it is to lessen to the utmost that which is the cause of all the trouble. If milk leaves the dairy as free as possible from all deleterious influences, imagine the effects. Add to this the necessary care of the milk from the time it leaves the dairy until it gets into the hands of the consumer, whoever and whatever that may be, and the evil results will be reduced to a minimum. In *Farmers' Bulletin*, No. 57, U. S. Dept. of Agriculture, C. P. Goodrich says of butter-making on the farm, after speaking of the general uniform character of butter: "But the case is different with those who make butter on the farms, where by far the greater part of the butter in this country is made. While on some farms excellent work is done and a choice article is made, which brings a fancy price, yet, through ignorance of correct methods of manufacture and of the demands of the market and, in many instances, through careless and slovenly habits, the great bulk of farm-made butter fails to bring the price it should, entailing loss on the farmers of the country which is enormous in the aggregate." If the financial loss is great, that is to be deplored, but loss of life is due to these very careless and slovenly habits. It only goes to show the great necessity for cleanliness, not only in the ordinary understanding of the term, but from a strictly sanitary point of view. Now, if laws are enacted protecting this industry to the detriment of other industries, why should not the same people be compelled to furnish the very best material to their customers. It will be no hardship when the project is once in motion, and the good resulting will be beyond measure. More deaths occur in man from tuberculosis than in the animals, but there are more cases of tuberculosis among the dairy cows in proportion to their number than in the human family. This is explained by the natural high temperature of the cow being just what the bacillus tuberculosis needs for its growth. It prevents its pathogenicity. It does not disturb the cow, but passes unnoticed until something foreign steps in and disturbs her equilibrium, causing an increase of the bacilli or causing them to break down and be followed by the usual train of symptoms of this formidable disease. That is why the cattle slaughtered for meat pass wholly unsuspected until the eye detects the product of the bacilli in the various parts of the body. All this time the disease is being conveyed to man insidiously. Some claim that the disease is not conveyed to man unless it has become active in the animal. We well know it lies in man inactive, at times, for years, just as the diphtheria germ is in the throat of individuals, who never had diphtheria but let something intervene to lower the vitality of these same individuals, and that which has been an impotent factor will, at once, become a very potent one. Again, if it be true that it can only be transmitted to man

from the animal when it is active in the animal, are we to stand by and see it become active? If it can be detected in the animal, which it can be by tuberculin, why await its activity? Stamp it out before it has a chance to become active. More can be accomplished by prevention than cure. Do not let it be conveyed to man, for then we have a double duty to perform. We must then prevent its spread both from man and animal.

In *Farmers' Bulletin*, No. 63, U. S. Dept. of Agriculture, R. A. Pearson, B. S., Assistant Chief of Dairy Division, Bureau of Animal Industry, says: "On a large proportion of dairy farms many of the fundamental principles which should be observed in producing pure milk are almost entirely overlooked. This is usually due to lack of appreciation of their importance more than to intentional neglect. In most cases bad conditions are promptly improved when their dangers are known. Special knowledge is as necessary in conducting the dairy as in other occupations. When one understands something of the sciences affecting dairying, the changes in milk cease to be mysterious, unexplainable phenomena and the work connected with the dairy, instead of being unprofitable, uncertain and monotonous, as some consider it, may become profitable, interesting and instructive. The care of milk seems a simple matter, but better methods in our dairies are of the greatest importance to the success and reputation of American dairying." In contracts and agreements the expression "pure milk" should not be taken to mean simply milk having a normal chemical composition, but freedom from all unnecessary contamination; the word pure should be understood in its broadest sense."

Now, the changes in milk are due to bacteria. All dairymen should understand that there are three kinds of bacteria—harmless, useful and harmful. Harmless we can pass, notwithstanding they are in numbers the largest and are not in milk when secreted. The ripening of cream and the flavor of butter are due to the useful bacteria. Cultures of these are now sold regularly on the market. The harmful bacteria are those to be guarded against, as they stand in a double relation. One group has an injurious effect upon the milk. The other does not seem to affect the milk, but has an injurious effect upon the consumer. Some are indirectly injurious by making conditions favorable for other germs. It is to these that slimy, blue and bitter milk are due. It is also the harmful bacteria that cause epidemics of various kinds, such as scarlet fever and typhoid fever, and also cause tuberculosis. These bacteria get into milk in the following manner: Through diseased animals and persons, uncleanliness in stables and outside of stables. The first requisite in a dairy is a healthy cow fed properly. It has been proven by experiment that 95 per cent. of contamination of milk can be prevented by avoiding all impurities and all conditions favorable to germ growth. Fifty dairy rules are given in *Farmers' Bulletin*, No. 63, U. S. Dept. of Agriculture. The fifty rules are treated under various heads. They cover the following: The Owner and His Helpers;

The Stable; The Cows; Milking; Care of Milk; Utensils.

I would advise all persons interested in dairy work to send for and read this bulletin. It is thorough and exhaustive. These rules are printed on large cardboard and sent to any person applying for same. Every dairy should have one posted in the stable. Very excellent milk regulations have been formulated and are used by the Horlick's Food Co., of Racine, Wis. Every person supplying milk to this company must sign these regulations, which, to my mind, are complete. It would be a good thing for all boards of health to pass rules compelling all dairymen supplying milk to cities or boroughs to take out a license and before issuing such license these regulations with slight alteration to be signed by applicant for license. Don D. Grout, M. D., of Waterbury, Vt., has written a very able article on "The Relation of Animal Diseases to Public Health" and printed in Bulletin No. 1, Vol. 2, quarterly issued by the Vermont State Board of Health, September, 1901. He goes into all diseases of all animals in relation to man, dwelling particularly upon tuberculosis. He says: "In considering, in a brief way, a few of the diseases common to and transmissible to man I have designedly left until the last the question of tuberculosis, it being one, at the present time, of more than ordinary interest to the average Vermonter. It is a disease that affects nearly all of our domestic animals. Cattle suffer more than any other domestic animal, and tuberculous cattle are especially to be dreaded, seeing that they furnish so much food for consumption by man."

He says that statistics show that 5 to 8 per cent. of cattle in northern States, and in some localities 50 per cent. or more, are tuberculous. This question is taking hold of the profession and the people, but much remains to be done. At the International Congress of Tuberculosis of Berlin, May 24, 1899, a prize was offered for the best essay on tuberculosis as a disease of the masses and how to combat it. Eighty-one essays were received and on July 31, 1900, the committee awarded the International Prize of 4,000 marks to Dr. S. A. Knopf, of New York. The International Congress of Veterinary Medicine at Paris adopted the following resolutions: First, bovine tuberculosis should everywhere be classed as a contagious disease and under the supervision of the health authorities; second, animals known to be tuberculous should be killed and their meat excluded from the market; third, the use of milk from tuberculous cows must be prohibited; fourth, all dairies should be subjected to a scrupulous inspection from time to time.

Professor Conn says that within five years fifty epidemics of typhoid fever have been traced to contaminated milk. Dr. C. W. Peck, of Brandon, Vt., says that 5,000 people are being killed every year by tuberculosis in the State of Vermont, and six thousand children are being killed by milk. The importance of this subject in Pennsylvania must be recognized, as Leonard Pearson, B. S., V. M. D., State Veterinarian; M. P. Ravenel, M. D., Bacterio-

logist of the State Live Stock Sanitary Board, and Professor Bang, of Copenhagen, Denmark, have written a work of 262 pages and printed as Bulletin No. 75, Dept. of Agriculture, Commonwealth of Pennsylvania, styled "Tuberculosis of Cattle and the Pennsylvania Plan for its Repression." They have gone thoroughly into the matter and have added their own experiences to that of others and have fortified the point of transmission of tuberculosis from animal to man. Get this bulletin and read it, for it will more than repay you. I have not gone into the scientific part of this matter further than to gather the generally adopted theories as we find them to-day. Some of us must be the "hewers of wood and the drawers of water." These are the active men in the various professions, fortified by lay and moneyed interests. It is our duty so to impress upon the people the danger we are in hourly that all will feel an interest in the matter, for all are included. There seems to be some conflict regarding the transmission of tuberculosis from cattle to man. Regarding the tubercle bacillus of man and that of cattle, might they not primarily be the same, and, if any difference exists, might it not be due to environment? Let us grant that there is a doubt in the matter, and then let us look at it in another way. If tuberculosis exists to-day in cattle, is it not a fact that the product of that animal is diseased? If it be diseased, is it not likely that some deleterious influences might be exerted upon man? If it be not tubercular disease and is any other disease, our duty, while apparently not so urgent in the matter, is certainly plain. I mean to exclude all diseases that are transmitted to man by inoculation, which are not questioned, and dwell upon diseases transmitted to man through food. Let laws be enacted compelling all dairies supplying milk to subscribe to certain positive sanitary and hygienic regulations. Appoint suitable and competent men to see that these laws are adhered to to the strict letter and intent. Supply money to pay competent men. It is not only your duty or my duty to see that this is done, but it is our duty.

SEVERE BURN OF THE EYE AND FACE BY NITRITE OF AMYL, WITH LOSS OF THE EYE.*

By EDWARD A. SHUMWAY, B. S., M. D.,
of Philadelphia.

Nitrite of amyl was introduced to the medical profession by Richardson, of London, in 1865. Since then it has been very extensively employed for the relief of spasmodic conditions, particularly when they are of a temporary character, and has been found very useful in epilepsy, when there is a sufficient interval of time between the aura and the convulsion. According to Wood¹, no deaths have ever resulted from its use, although as much as three drams have been taken internally; and I have not been able to find the report of a case in which it has caused a local destruction of tissue. The one which I desire to report is, therefore, of interest, not only because of its unique character, but be-

*Read at the meeting of the Pennsylvania State Medical Association at Allentown, Sept. 16, 1902.

1. Therapeutics, its Principles and Practice.

cause of the warning it gives of the possible danger which may be incurred in the use of the drug, unless certain precautions are observed—a fact which, if known to the general profession, seems to have been entirely forgotten. The history of the patient is, in brief, as follows:

A. B., male, aet. 25, when 5 years of age, was paralyzed on the right side of the body, the attack coming suddenly without previous illness. He gradually recovered the use of the leg, but the arm was arrested in its development, and is at present in a moderate state of contracture. Seven years later, at the age of 12, he began to have epileptic convulsions. These were Jacksonian in type, affecting the right side of the body, and coming at irregular intervals. At times he would have 3 or 4 attacks in a month; at others there would be an interval of several months between them. In March, 1899, the skull was trephined over the left motor area, in one of the general hospitals of Philadelphia, and he was subsequently treated by subcortical injections of eucaine. The convulsions were much decreased in number, and, while in the hospital, the patient was given a small bottle of nitrite of amyl, which he used as soon as the aura announced the appearance of an attack. He stated that on one occasion, in May, 1899, the convulsion came too quickly, and he accidentally threw a portion of the contents of the bottle into his right eye. As a result, there was a deep burn of the cornea and conjunctiva which extended to the skin of the right side of the face. Despite prompt treatment, the cornea sloughed and the eye was destroyed. Eighteen months later, in December, 1900, he came to the Howard Hospital for removal of the shrunken eyeball, in order that an artificial eye might be worn. At this time there was a dense cicatrix of the skin, extending from the inner canthus of the right eye downward, past the ala of the nose, to the middle of the upper lip. The eyeball was quadrate in form, much shrunken, the site of the former cornea being occupied by a dense leukoma, from which a thick band of adhesions extended to the conjunctiva of the upper lid at the inner angle. The eyeball was enucleated, and on a subsequent occasion a plastic operation was performed, to remove the extensive symblepharon and enlarge the socket, so that the glass eye could be inserted.

The history elicited at the time of operation seemed scarcely credible, in view of the well-known physiological properties of nitrite of amyl. Wood says in his "Therapeutics, its Principles and Practice" that "amyl nitrite has no irritating properties. It causes a progressive loss of functional power in every highly organized tissue with which it comes in contact . . . If the contact be not continued too long, the tissue may recover even after a total suppression of its function—a proof that the poison exerts no destructive chemical or devitalizing influence upon the tissues, such as that of sulphuric acid or veratria."

It was therefore supposed that by some mistake a bottle containing an acid had been substituted for the one of nitrite of amyl. The patient, however, was positive that there had been no such mistake and that the bottle was the one which he had used for a long time. Further investigation of the chemistry of the drug revealed the following facts: Nitrite of amyl is made by the action of nitrous or nitric acid on amylic alcohol, or fusel oil. In the subsequent process of manufacture all traces of the acid are removed, so that the finished product has but a faintly acid reaction, and as in this case the drug was obtained from an entirely reliable manufacturing chemist, the presence of much acid in the fresh drug may, I think, be considered as out of the question. It is furnished in one of two forms, the so-called "pearls," minute glass vials, each containing five minims, which are broken in a handkerchief when the drug is to be inhaled, and in one-

ounce glass-stoppered bottles which are sealed with paraffin. The directions of the United States Dispensatory are that it should be kept carefully sealed and should be protected from light in a cool place. The reason for this is that it rapidly decomposes on exposure. Schmidt's "Ausführliches Lehrbuch der physiologischen Chemie" says: "On long preservation in the light, and with access of air, nitrite of amyl undergoes decomposition and, in consequence of the resulting formation of nitrous and nitric acids, it becomes acid in reaction. Valerianic acid, valerianate of amyl and fusel oil are formed at the same time." This, then, was the solution of the problem. The patient had been supplied with nitrite of amyl which, by repeated exposure to light and air, had decomposed and, at the time of the accident, probably consisted largely of a mixture of nitric and nitrous acids, to which the severe burn was due.

A very careful search of the literature at my command has failed to discover a similar case, so that it must stand unique. At the same time, it may serve a very useful purpose in calling our attention to the fact that, while the administration of nitrite of amyl is ordinarily safe, it is not entirely free from danger, and the following suggestions are, therefore, in my opinion, justifiable:

1. Nitrite of amyl should be supplied to patients, for inhalation, only in the form of the glass pearls.
2. When in quantity, it should be kept in small, well-sealed, glass-stoppered bottles, in a cool, dark place.
3. A specimen which has been used a number of times should be tested very carefully and, if on examination it is found to have a decidedly acid reaction, it should be at once discarded.

EXTENSIVE DESTRUCTION OF THE NASAL SEPTUM, WITH INVOLVEMENT OF THE ACCESSORY SINUSES, FROM SEPSIS.

By CHARLES I. BUVINGER, M. D.,
of Pittsburg, Pa.

The subject of this report, C. W. K., age 42, a butcher by occupation, was referred to me, March 27, 1902, with the following history: About one month previous to consulting me, he was treated by a physician for an acute rhinitis, to which he was subject at frequent intervals. He was told that he had some "growths" in the nose which were the cause of all his trouble and was advised to have them removed.

The operation was done the same night (a stormy, disagreeable one) by means of a cautery, both sides and also the septum being operated on: no after-treatment was given, except an ointment to apply to the ala of the nose, which had been accidentally burnt in withdrawing the cautery.

One week later he complained of fever, frontal headache, pain back of the eyeballs and over the superior maxillary bones on both sides, and was put to bed under the diagnosis of probable typhoid fever. He was treated with antipyretics, etc., but no treatment was given to the nasal cavity. After being confined to bed a week and all the symptoms growing worse, he called in another physician, who, on learning the history of the case, promptly washed out the nasal cavities with glycothymoline and peroxide of hydrogen. This treatment relieved the symptoms to a great extent and was continued for about two weeks, but as the discharge persisted and the patient still complained of pain over the maxillary bones and of a foul odor at times, he was referred to me for treatment. Examination showed the nasal fossæ on both sides to be filled with mucus, a perforation through the triangular cartilage and

vomer, and a large area of exposed and necrosed bone on the perpendicular plate of the ethmoid.

The septum had evidently been deviated to the right side. He complained of pain back of the eyeballs and over the maxillary antra on both sides, which was aggravated by pressure and blowing of the nose. After cleansing the nasal cavities with Dobell's solution, followed by a five per cent. camphomenthol albolene solution, continued for several days, the headache was somewhat relieved, but the pain over the antra continued. These were washed out through the natural openings, with normal salt solution, every other day, and in about ten days the pain ceased. All dead and exposed bone was cut away and the edges of the wound treated with balsam of Peru. Dobell's solution and camphomenthol albolene was used at home daily.

After one month of this treatment all symptoms disappeared, except some pain at times, felt at the root of the nose and the lower inner part of the orbit on the left side.

Inspection showed pus exuding into the middle meatus and hiatus semilunaris and evidently coming from the ethmoid cells. Under cocaine anesthesia, the anterior half of the middle turbinate was removed with bone forceps and snare and the cells thoroughly curetted, bringing away considerable necrosed bone. The interior of the cavity was then cauterized with an eighty per cent. solution of trichloroacetic acid, insufflated with iodol, and tamponed with iodol lint. This was removed in two days and the treatment with camphomenthol albolene continued. This treatment relieved all distressing symptoms and the discharge ceased, and at present date, June 2, 1902, the patient states that he feels all right again. Inspection of the nares shows almost entire destruction of the vomer and perpendicular plate of the ethmoid, and about one half of the triangular cartilage, but no sinking of the bridge of the nose has resulted, nor is the patient annoyed with crusting of the secretions, nor a whistling sound on inspiration.

The history of cases of this kind should surely teach us not to operate in acute inflammatory conditions, to only treat one side of the nose at a time, to choose settled weather, if possible, and first, last and always, to maintain thorough asepsis.

THE GLASGOW MEDICAL JOURNAL.

July, 1902. (Vol. LVIII, No. 1.)

1. Chronic Suppurative Disease of the Middle Ear. J. KERR LOVE.
2. Spina Bifida; Its Operative Treatment Amongst Out-Patients. JAMES H. NICOLL.
3. Puerperal Eclampsia. WALTER L. WATT.

1.—To be abstracted when concluded.

2.—Nicoll's practice was to resect all cases of spina bifida; latterly cases in which the sac is ruptured or ulcerating badly are rejected, while cases in which the sac is so extensive and sessile as to render it impossible to obtain efficient closing flaps from its margins have been treated by injection. The author believes that infants operated on in spina bifida, hydrocephalus and hydronephalocoele fare at least as well in the care of their mothers as in the ward of a hospital. [T. M. T.]

3.—Watt, in his treatment, mentions: (1) Chloral and chloroform—30 grains of chloral hydrate, repeated every 2 hours until the fit ceases. The inhalation of chloroform is commenced as soon as any signs of the onset of a convulsion occur and continued until they cease. (2) Morphine sulphate. The initial dose is half a grain, to be followed by a quarter grain every two hours until the fits cease. Not more than 3 grains should be given in the 24 hours. (3) Veratrum viride. The convulsion is controlled by chloroform, and, after it is over, 15 minims of the tincture are administered hypodermically. If the fits continue the drug is repeated in 5 minim doses until the convulsions are under control. It is sometimes combined with chloral hydrate, as much as one ounce of this drug being injected as an initial dose into the rectum. [T. M. T.]

Health Reports.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending October 4, 1902:

SMALLPOX—United States.

			Cases...	Deaths.
DELAWARE:	Sussex County.	Sept. 1-25.	7	
ILLINOIS:	Freeport.	Sept. 20-27.	2	
INDIANA:	Indianapolis.	Sept. 20-27.	2	
	South Bend.	Sept. 20-27.	2	
KANSAS:	Wichita.	Sept. 20-27.	3	
MASSACHUSETTS:	Chelsea.	Sept. 20-27.	1	
MICHIGAN:	Grand Rapids.	Sept. 13-20.	1	
MONTANA:	Butte.	Sept. 20-28.	1	
NEW HAMPSHIRE	Nashua.	Sept. 20-27.	13	1
NEW JERSEY:	Newark.	Sept. 20-27.	3	
NEW YORK:	New York.	Sept. 20-27.	5	1
OHIO:	Cleveland.	Sept. 20-27.	79	17
PENNSYLVANIA:	Erie.	Sept. 20-27.	1	
	McKeesport.	Sept. 20-27.	14	2
	Pittsburg.	Sept. 20-27.	7	7
SOUTH CAROLINA	Charleston.	Sept. 20-27.	1	
WISCONSIN:	Green Bay.	Sept. 20-28.	1	

SMALLPOX—Foreign.

BARBADOS:		Aug. 31-Sep. 15.	226	11
CANADA:	Amherstburg.	Sept. 20-27.	1	
GREAT BRITAIN:	Dundee.	Sept. 13-20.	1	
	Liverpool.	Sept. 13-20.	3	
	London.	Sept. 6-13.	7	2
	Sunderland.	Sept. 6-13.	4	
ITALY:	Naples.	Sept. 6-13.	1	
	Palermo.	Sept. 3-13.	19	1
MEXICO:	Mexico.	Sept. 14-21.	1	1
RUSSIA:	St. Petersburg.	Aug. 30-Sep. 13.	18	9
STRAITS				
SETTLEMENTS:	Singapore.	Aug. 2-16.	1	1

YELLOW FEVER.

COLOMBIA:	Panama.	Sept. 15-22.	3	1
CUBA:	Havana.	Sept. 19.	1	
		case removed from S. S. Havana, from Mexican ports.		
MEXICO:	Coatzacoalcos.	Sept. 13-20.	1	1
	Mexico.	Sept. 14-21.	2	
	Tampico.	Sept. 26.	1	1

CHOLERA—Foreign.

CHINA:	Hongkong.	Aug. 9-16.	21	13
INDIA:	Calcutta.	Aug. 23-30.	1	11
JAPAN:	Osaka and Hogo.	Aug. 30 Sept. 6.	17	18
JAVA:	Batavia.	Aug. 15-23.	38	35
STRAITS				
SETTLEMENTS:	Singapore.	Aug. 2-16.	55	55

PLAGUE—United States.

CALIFORNIA:	San Francisco.	Sept. 11.	1	1
	San Francisco.	Sept. 16.	1	1

PLAGUE—Foreign.

CHINA:	Hongkong.	Aug. 9-16.	12	12
INDIA:	Calcutta.	Aug. 23-30.	1	24

A Case of Human Rabies.—Harlow Brooks has recently reported the details of a case of human rabies, in the *New York University Bulletin of the Medical Sciences* for July, 1902. A man of 32 had his thumb bitten by a dog which showed no signs of being rabid. The wounds healed in a week. Two months later he noted an itching or pinching sensation in the wounds, pain in the hand and shoulder and dysphagia with spasmodic twitching of the mouth and throat muscles. Convulsions followed, with death on the fourth day. The autopsy showed the cause of death to have been asphyxia, due to collected secretion in the air passages. The nuclei of the medulla and upper cervical cord showed marked degenerative changes in the ganglion cells. All the lymphatic structures were also affected. Animals inoculated with an emulsion of the medulla developed typical rabies. [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8

VOL. X. NO 16

OCTOBER 18, 1902

\$5 00 PER ANNUM

Cyto-Diagnosis.—Recently attention has been directed to a method of diagnosis—cyto-diagnosis—which promises much, particularly from the standpoint of rapid diagnosis in certain cases of pleural and pericardial effusions, and in spinal meningitis.

In serous pleural effusions, one of the most common of chest affections, it is of the greatest importance, particularly from a prognostic viewpoint, to determine the cause of the effusion; whether it be due to tubercle, to the streptococcus, to the pneumococcus or the staphylococcus, to malignant disease, or whether it arises in the course of heart or kidney affection. At times the ordinary methods of diagnosis may be exhausted without arriving at a conclusion as to the origin of the effusion. For example, an effusion may be tuberculous, associated with tuberculous disease of the lung, and the physical signs in reference to the lung may pass unnoticed, or the effusion may conceal the signs of the diseased lung. Expectoration may be slight, and tubercle bacilli may not be found in the sputum; the application of the tuberculin test in cases in which fever exists is often useless; a blood-examination offers only slight aid, and the sero-diagnosis of tubercle is as yet surrounded with many technical difficulties. The micro-organisms causing the effusion may be discovered by the microscope or by cultural methods in the fluid drawn by puncture, but this, too, is often difficult, particularly in cases of tuberculous effusion, in which sterility of the exudate is recognized as an important sign of its tuberculous nature. Inoculation of the fluid into the guinea-pig is a test of the highest value, but, unfortunately, this method is also attended with difficulties, for a positive result is not secured within less than three weeks, and even this test may fail at times.

G. Lovell Gulland has contributed an interesting paper (*Scottish Medical and Surgical Journal*, June, 1902) on cyto-diagnosis. He classifies the cellular elements found in pleural exudates into those derived from the blood and those from the tissues. Polynuclear neutrophile leukocytes, lymphocytes and erythrocytes are the cells most often encounter-

ed of hemic origin, while basophile leukocytes and eosinophiles are more rarely seen. Endothelial cells are the most common cellular elements derived from the tissues. The polynuclear neutrophile cells often undergo degenerative changes in the exudate. The cell body may show simple dissolution, a condition in which the granules are liberated; it may undergo fatty degeneration, or may exhibit the glycogen reaction. The nucleus may lose its staining properties, so as to be faintly colored; it may become fragmented, with the cells splitting into parts, so that the fragments may contain a single nucleus with granules around it. The lymphocytes do not undergo degenerative changes very readily. Endothelial cells are generally easy to differentiate from other cellular elements, although at times large lymphocytes closely resemble them. The technique of examination is easy. A droplet of the exudate is placed upon a cover-slip, another cover is superimposed, and the two are drawn apart. Gulland recommends the formalin-alcohol method of fixation, but any of the methods of fixing blood films may be employed. The stains which have been found most useful are methylene blue followed by eosin, Jenner's stain and Pappenheim's modification of the triacid stain. For the demonstration of fatily degenerated cells Sudan III. and Scharlach R. are most highly recommended. Iodine is used for the demonstration of glycogen.

Most observers concur that in tuberculous serous effusion lymphocytes are the predominating cellular constituents; many red bloodcells may also be encountered, but polynuclear leukocytes and endothelial cells are scanty. In effusions caused by the streptococcus and the pneumococcus, polynuclear cells are found in great numbers, many endothelial cells, and sometimes red bloodcells, in varying numbers. In edematous effusions occurring in the course of heart or kidney disease, cellular elements are scanty and consist mainly of endothelial cells. In effusions due to malignant disease the cells of the malignant growth may be found in the fluid in great numbers.

Alfred Hand, Jr. (*Philadelphia Medical Journal*,

August 30, 1902), in an article on "The Positive Diagnosis of Meningitis, Particularly Tuberculous, by Means of Lumbar Puncture," calls attention to cyto-diagnosis. In all the cases in which he was not able to discover tubercle bacilli in the fluid drawn by puncture, polynuclear leukocytes were found in excess. Florence B. Sabin recently reported (*American Medicine*, March 8, 1902) a case of tuberculous pericarditis with effusion in which the exudate contained a high percentage of mononuclear cells.

Some Phases of the Cancer Problem.—Professor R. de Bovis, of Reims, has contributed two interesting papers in *La Semaine Médicale* of September 10, and of September 24, 1902. In the first of these papers he makes inquiry as to the increase in frequency of cancer, its predominance in cities and its predilection for the female sex. He takes up the question as to whether these hypotheses are true or false. In his second paper he discusses the rôle of the principal contributing factors in the etiology of cancer. These contributions are noteworthy for several reasons. It is a truism that statistics are susceptible of almost any interpretation that one seeks to draw from their study, providing that a proper use of the figures considered is not made and their limitations definitely set down. Professor de Bovis has based his work entirely upon the study of statistics, but he has considered his facts wisely, and he points out the importance of a proper interpretation of figures in order that error may be avoided. For instance, it has been claimed that the mortality of cancer in cities is greater than in rural districts. In order that this should be determined intelligently we must know the population of the districts considered, and this must include the ages of the inhabitants, the distribution of the disease in the sexes and the number of males and females in the population, as well as the populations of the districts compared per square acre. De Bovis is of the opinion that, were statistics in the rural districts compiled with as much care as those in cities, it would be found that cancer was no more frequent in thickly populated districts. A point which must not be forgotten is that many patients from the country go to cities to be operated upon, in many instances die there, and the urban mortality-rate from cancer is thus swelled.

He believes that, when the various periods of life are considered, decade by decade, the sexes are affected equally. The prevalent opinion that more women are affected than men, is due to the fact that the female genital organs are most commonly attacked, and the disease appears in these parts

much earlier than elsewhere, either in women or in men. His paper contains an admirable bibliography of this subject. He has carefully analysed the mortality-rate of cancer and includes a table of this mortality of most of the civilized countries of the world.

His conclusions, based upon his analyses of these figures, are interesting. They are that cancer of the rectum appears about stationary; that uterine cancer has undergone an appreciable diminution in the past thirty years, and that the decrease in mammary cancer has been even more marked; cancer of the mouth and upper air passages seems to be increasing slightly, while cancer of the extremities has decreased. The chief increase in the number of cases appears to be due to the increase of cancerous visceral affections, and this increase, shown in tables, is probably more apparent than real. He states emphatically that there has not been a great increase in this disease in the last few years; nor does he believe that the theory advanced that carcinoma attacks patients earlier in life than heretofore is founded on fact. The contrary opinion has been conclusively proven. The age of maximum frequency of cancer appears to be, in round numbers, 70 years for males and 75 years for females. He reviews the influence of race, and states that there seems to be a somewhat less receptivity on the part of the Southern races than those of the Northern, but we are ignorant of the exact measure of this receptivity. De Bovis has carefully studied the figures based upon geological, orographical, meteorological, social, professional, dietetic and certain other factors. But he does not believe that they rest on an incontestable statistical base.

Ten Thousand Men in Camp.—We have had before us this week the unusual spectacle of almost, if not quite, ten thousand soldiers in arms and in camp within the confines of the State of Pennsylvania. When we reflect that these troops are not holiday soldiers, or soldiers on dress parade, we cannot fail to realize the gravity of the situation. To be thus brought suddenly, in a time of profound peace, face to face with the conditions of grim-visaged war, is rather disturbing to one's optimism. Seldom, if ever, since the great Civil War have we in Pennsylvania put ourselves on such a war footing.

If these camps are to continue long, the medical world will watch them with interest and solicitude. We do not want to see repeated any of the unfortunate experiences of the Spanish-American war. It will be recalled that some of our camps in this country (but not in this State) at that time

were allowed to get into a very unsanitary condition, and that typhoid fever and other infectious diseases ran rife in them. In the present case the season is probably propitious, for the autumn is more salubrious than summer for men in camps. Nevertheless, this is but a minor advantage, and would not weigh an iota against bad drainage and an infected water-supply. The military authorities of this State have faced a big responsibility, and one that was not confined to keeping order among the striking miners. They have faced some of the problems of military hygiene. We have no doubt that they fully realize this fact.

The health of the troops who were first sent into the coal regions has remained extraordinarily good. This is, we trust, an augury for the welfare of the larger body if they are to remain in camp. But the coal strike appears to be about at an end, and this is the best solution of the problem. Perhaps this happy solution will be reached even before this writing reaches the light. But to have the strike continue, and to have in addition a lot of sick soldiers on our hands, would be disheartening, indeed. To be forewarned is to be forearmed.

Cardicentesis.—Tapping one of the cavities of the heart as a therapeutic measure is certainly a novel procedure, and one not likely to be popular. We had no idea that it had ever been done until we read the confession of Dr. Byrom Bramwell in his recent "Clinical Studies"—an attractive periodical which Dr. Bramwell has just commenced to republish. The author refers to two cases, both of which, however, were accidental. One occurred in his own practice and one in that of Dr. Sloan, of Edinburgh.

We cannot do justice to the reports of these cases. They should be read in the original as instances of dramatic medical literature.

Dr. Bramwell's patient was a man with ulcerative endocarditis. A diagnosis of pericardial effusion was made, and a small aspirating needle was plunged into the pericardium. But it entered the heart, and after its hasty removal the patient died, and a large clot was found post mortem in the pericardial sac. The mode of death reminds us of Dr. Nietert's case of stab wound of the heart (reported in this *Journal*), in which the heart muscle was sutured, but death resulted from a large clot in the pericardium.

Dr. Sloan's case was still more striking, for the patient was *in articulo mortis*, but promptly revived and ultimately recovered after Dr. Sloan had accidentally punctured the heart and actually drawn off 8 to 10 ounces of blood. This was a case of

rheumatic endocarditis, and the cavity so happily but accidentally relieved was the right ventricle.

In view of Dr. Lauder Brunton's recent recommendations of surgical interference in mitral stenosis, these cases are doubly interesting. We advise all persons interested in heart surgery to read Dr. Bramwell's graphic and hair-raising description. If then they feel inspired to perform "cardicentesis," the responsibility will be theirs—not ours.

The Cause of Zola's Death.—There seemed at first to be some mystification about M. Zola's death. Suicide was darkly hinted at, but this rumor was quickly set aside, and the theory of self-destruction appears now hardly to be tenable. Even if the novelist had intended to kill himself, it is hardly probable that he would have included his wife in his plan, or that he would have adopted such a method as asphyxiation for a combined uxoricide and suicide. The mere suspicion of such a double crime is highly unjust to the memory of Zola.

The case, however, has some interesting medico-legal aspects, and it also serves to throw a curious light on some domestic customs of the French. Although the season was still so early, M. Zola and his wife had a fire in their bedchamber, and this fire was in a closed stove. The fuel apparently was some form of coal. Before retiring the novelist shut the bedroom windows. As it was only September, the ideas of M. Zola on ventilation and general bedroom hygiene must have been sufficiently out of date. The English medical journals, commenting on this aspect of the case, are thanking their good fortune that in England the people use open grates. We re-echo this sentiment, especially so far as bedrooms are concerned. And we are also pleased to believe that few persons in America go to bed with a stove fire in their rooms in September and with the windows all closed.

As for the immediate cause of M. Zola's death, we imagine there is not much room for doubt. The unfortunate man evidently died from poisoning with carbon monoxide, or carbon dioxide, or, what is most probable, a mixture of the two gases. The effects of these gases are well understood. Carbon monoxide is an especially toxic gas, and is both odorless and tasteless. It causes profound changes in the blood—changes which, we understand, were found in the cases of M. Zola and his wife.

That Zola was the only victim was remarkable. He was found lying dead on the floor; but his wife was still living and was revived with difficulty. She had a dim recollection of being aroused in the night by a sense of illness, and of hearing her husband arise from bed, but she almost at once sank into un-

consciousness. A small dog in the room also escaped death.

For Medical Defence.—The Philadelphia County Medical Society has under advisement an amendment empowering the Society to appoint an attorney-at-law to represent it in all suits brought against its members, and to assist the District Attorney in prosecuting illegal practitioners. With certain proper qualifications this amendment will allow the Society to give to its members not only an active legal defence in suits for malpractice, but also the moral support that must necessarily come from such action by such a large and influential body.

This approaches a scheme for mutual defence, and is most praiseworthy. It is not, however, a true scheme for insurance against suits for malpractice, because the Society expressly contracts not to obligate itself to pay any damages that may be awarded. It simply constitutes itself the legal representative of its accused members, and assumes the cost of such defence in all matters except the payment of damages.

This limitation of responsibility is doubtless wise, even necessary. It would evidently not be expedient for such a society to assume such financial obligations as might arise from the payment of damages. This could only be done by adopting a true system of insurance involving the collection of stated premiums from all its members, and for such a scheme the Philadelphia County Medical Society is evidently not prepared. It would probably be going too far outside of its proper limits of activity for it to adopt such a plan.

While this proposed plan has our hearty approval, we think it worth while to call attention to the fact that it is not a system of insurance, and that such a system is still a desideratum among physicians in this city.

The Statue of Dr. Crawford W. Long.—They are very much in earnest down in Georgia about having the memory of Dr. Crawford W. Long perpetuated as that of the discoverer of anesthesia. They have gone about it in a way that will have telling effects, for the Legislature of the State has voted that the statue of Dr. Long shall be one of the two which the State is entitled to place in the Capitol at Washington. It only remains now to secure funds for the proposed memorial. We learn from the *Atlanta Journal-Record of Medicine* that the Georgia Medical Association at its last meeting appointed a committee to solicit funds. We do not doubt that the committee will succeed, and that the medical profession will have the opportunity

in the near future of seeing a statue of one of its members erected in the National Capitol.

We are not sure, but we surmise, that this will be the only statue of a physician in that distinguished collection. Under the law every State is entitled to place the statues of two of its most distinguished citizens in the Capitol, and the fact that Georgia will thus honor a member of the medical profession is noteworthy. Dr. Long's friends claim that he was the "discoverer of anesthesia." But the claims of Morton to have really introduced ether anesthesia as a practical procedure will indubitably never be set aside, for in this case, as in many others, it was the man who pointed out the way who is really entitled to the greatest credit; but there can surely be no objection to commemorating the services of Dr. Long for having, if his friends' contentions are just, first used anesthesia successfully in surgery.

It must be remembered that the anesthetic effects of nitrous oxide and of ether had been known long before Wells used the former and Morton the latter. They had, therefore, been "discovered" before the time of Long. These effects of nitrous oxide were known to Sir Humphrey Davy as early as 1800, and of sulphuric ether to Faraday as early as 1818. But Morton gave the demonstration as early as 1846 that secured the adoption of ether anesthesia as a recognized procedure in surgical practice. His fame is assured.

Current Comment.

HIRSUTE SURGEONS.

A movement is on foot, especially in Germany, to compel surgeons to abstain from wearing moustaches and beards, on the ground that these appendages are capable of carrying pathogenic microbes into the operating theatre, thus frustrating the endeavor to render all operations aseptic. To be logical, an edict ought to be passed condemning them to shave the scalp as well, since their flowing locks are fully as open to objection as the beard. From this point of view baldness, it is suggested, constitutes a special qualification for surgical practice as well as an outward and visible manifestation of extreme cerebral activity, though we are prepared to challenge the assumption that baldness is necessarily the consequence or the indication of a high standard of intellectual attainments.

—*Medical Press and Circular.*

INTERNATIONAL RECIPROCITY IN MEDICINE.

A Vienna surgeon is coming to Chicago to treat the daughter of a millionaire. A Chicago doctor has been asked to go to England to treat the daughter of one of the nobility. If some English physician is now summoned to Austria, the circle will be complete, and we may expect the capitalization of a syndicate to exchange physicians between countries. Our only authority, however, for the invitation from a British peer to the Chicago doctor of great self-repute and advertising ability is his statement in the advertisements in the Chicago newspapers. These

say that he has refused the tempting offer, with its munificent remuneration, and will heroically devote himself to the patients dependent on him here. This decision is wise. In view of the thorny path in Germany for our export meat because of inferior pork, the nation should see to it that all products sent to foreign countries are of first quality. With this condition assured, we shall not object to the American physician taking his place in "the American invasion."

—*Journal of the American Medical Association.*

Correspondence.

APROPOS OF THE SO-CALLED "INFRASPINATUS REFLEX."

By ALFRED GORDON, M. D., of Philadelphia.

To the Editor of the Philadelphia Medical Journal:

In looking for tendon reflexes one should always bear in mind that the best results are obtained with muscles and tendons which are separated from the neighboring tendons and muscles and therefore accessible to the percussion hammer (patellar and Achilles tendon reflexes are examples.)

When, however, the tendons and muscles are closely surrounded or covered by other muscles or tendons, the results are always uncertain, as several muscles enter into a combined display.

Since von Bechterew called our attention to his scapulo-humeral reflex (*Neurol. Centralbl.*, May, 1901), it occurred to me that two different movements of the upper limb could be obtained in following his rules. By striking the inferior angle of the scapula, i. e., where the teres major m. is inserted, we obtain an abduction of the arm and flexion of the forearm. When about the middle of the inner border is struck, i. e., the infraspinatus is inserted, we obtain an adduction with *external rotation* of the arm. This was formulated by me at the March meeting of the Philadelphia Neurological Society (*Journal of Nervous and Mental Disease*, September, 1901, page 526). Prof. Steiner, of Cologne, who claims priority in first describing the so-called "infraspinatus reflex," is more inclined to strike this muscle at a place near the two teres muscles. I maintain that, by striking a portion of a muscle or its tendon as far as possible away from the neighborhood of other muscles or their tendons, the results are very clear. For the infraspinatus particularly I have always been in the habit of striking about the middle of the internal border of the external surface of the scapula, therefore at sufficient distance from the teres muscles.

As to the question of priority in scientific matters, it occurs not infrequently that only to those men who happen to give a name to a scientific fact, or to those who happen to bring it into prominence, credit is given for its discovery, although the same fact was observed long before by others, whose observation for some reason had the misfortune to pass unnoticed.

Reviews.

Diseases of the Nose, Throat and Ear. By Charles Prevost Grayson, A. M., M. D., Lecturer on Laryngology and Rhinology in the Medical Department of the University of Pennsylvania, Physician-in-charge of the Department for Diseases of the Nose and Throat in the Hospital of the University of Pennsylvania; Laryngologist and Otologist to the Philadelphia Hospital. In one volume of 540 pages with 129 engravings and 8 colored plates. Lea Brothers & Co., Philadelphia and New York.

Dr. Grayson's large experience as a teacher and practicing specialist enables him to give to the profession, in this

handsomely printed volume, an interesting treatise on the diseases of the nose, throat and ear.

The literary style is excellent. Designed for the instruction of the student and general practitioner the book tells "not only *what* to do, but *how* to do it." Dr. Grayson's technique and point of view are evidently the outcome of careful original work. He simplifies the subject, pointing out clearly the pathological conditions to be corrected and giving in every case a simple rational treatment; he repeatedly dwells upon the necessity of attending to the general health as well as to the local lesions. The size of the work does not admit an exhaustive description of the rare diseases and the more difficult operative procedures. Enough is given, however, to guide the reader in making further study.

The book is entirely practical and modern; a credit to the author and to the publishers. It will be read with pleasure by all interested in this special field. [W. G. B. H.]

The Medical Students' Manual of Chemistry. R. A. Witt-
haus, A. M., M. D. Fifth edition, 8vo., 641 pages and
index. William Wood & Co., New York. \$3.50.

This manual has been so long known to students and teachers in American medical colleges, that little is required except to record its re-appearance in a revised and much enlarged form. Dr. Witthaus is in every way competent to produce a good text-book of medical chemistry and has not disappointed expectation. His large experience as a writer, teacher and practical worker is exemplified in the present manual. As might be expected, the bulk of the book is given up to organic chemistry. The general facts of chemistry are well covered. The classification of the elements is the same as that of former editions. It is the author's own, and, while we do not think it possesses the advantage he claims for it, yet the point is not very important to students. We are inclined to think that the text-books of medical chemistry are becoming too bulky. The fact is that students use the brief summaries or "compends" more than they do the bulky volumes, even though they purchase the latter. Dr. Witthaus uses the American spelling, of which, indeed, he was an early champion, yet we are surprised to see the words "litre" and "metre."

[H. L.]

International Clinics. A quarterly of illustrated clinical lectures and especially prepared articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the collaboration of John B. Murphy, M. D., Alexander D. Blackader, M. D., H. C. Wood, M. D., T. M. Rotch, M. D., E. Landolt, M. D., Thomas G. Morton, M. D., James J. Walsh, M. D., J. W. Ballantyne, M. D., and John Harold, M. D., with regular correspondents in Montreal, London, Paris, Leipsic and Vienna. Volume II. Twelfth Series, 1902. Philadelphia. J. D. Lippincott Co., 1902. Price in cloth, \$2.00.

This volume of *International Clinics* is an especially welcome one. All of the lectures are timely, and the subjects are so diverse that every physician, whether he be a general practitioner or a specialist, is sure to find a number of them which will prove of interest to him. We might especially mention the treatment of diabetes mellitus by Professor R. Lépine and Professor Arnold Pick's discussion of pachymeningitis hemorrhagica as a cause of drunkards' deaths. Dr. Carstairs Douglas discusses the presence and significance of beta-oxybutyric acid in the urine of diabetic and its relation to diabetic coma. Dr. John C. Hemmett concludes his consideration of gastro-intestinal auto-intoxication in this number. An article of especial importance and interest is that of Professor Thomas Jonnesco, of Bucharest, on the resection of the cervical sympathetic. The biographical sketches of eminent living physicians

are continued in this number, and the career of Dr. John B. Murphy is briefly described by Dr. Guy Hinsdale. The recent work of the Russian physiologists has aroused the greatest interest, and the special article on the function of the digestive glands based on the researches of Pavlov and his pupils, which was prepared by Dr. Peter Borissof at the especial request of Dr. Pavlov (the first part of which is published in this volume), is a noteworthy feature. Among the other contributors are Dr. Nicholas Senn, Dr. H. A. Kelly, Dr. W. B. Coley and Dr. Albert Robin, of Paris.

[T. L. C.]

Some Thoughts on the Principles of Local Treatment in Diseases of the Upper Air Passages. By Sir Felix Semon, M. D., F. R. C. P. Macmillan & Co., London, 1902.

Sir Felix Semon has produced a very philosophical little monograph in which he endeavors to inculcate principles rather than facts. There is one sentence in the early part of his book that is of considerable significance, and appears to be entirely borne out by the trend of modern therapeutics: "It is in the nature of things when a part of the human body has been made more accessible to eye and hand by the progress of our science, that the treatment of affection of that part should change from the medical to the surgical, or, at any rate, from the general to the topical side." In particular, he takes up malignant diseases, tuberculosis, and others, adenoids, various reflex neuroses, asthma and other conditions of the nose and larynx. He takes occasion to pay his respects to a certain American laryngologist for advocating total extirpation of the larynx in the early stages of cancer of that organ.

The book is delightfully controversial in tone, especially the appendix, and is decidedly interesting reading throughout. It is not a text-book, and, although it will be enjoyed by the general practitioner, its chief value will be for the specialist. [J. S.]

How Can I Cure My Indigestion? By A. K. Bond, M. D., Member of the Maryland Public Health Association, etc. The Contemporary Publishing Company, 5 New York. Pages 108.

This small volume of gastric and intestinal hygiene—for that is practically what it is—treats of the subject of indigestion in a popular way. We find here in concise form the etiology of all forms of gastric and intestinal functional disease from babyhood to old age. The author tells us how to eat, when to eat and what to eat. Sections are devoted to nutrition in the sick-bed, diet cures, the value of indoor and outdoor gymnastics, the analytical method of treating stomach-diseases, dyspepsia and alcoholism, dietary longings and other equally interesting and instructive subjects. The book is pleasant reading and contains much valuable matter in an acceptable and easily digestible form. [W. A. N. D.]

The Action of Antistreptococcus Serum.—In an extensive article (*Klinisch-therap. Wochenschrift*, 1902, Nos. 28-33), Tavel, of Berne, has reviewed the effect of anti-streptococcic serum, reporting his own cases. This action depends on the virulence and plurality of the streptococci. While it is easy to increase its virulence, to decrease it is difficult. When streptococci are negatively chemotactic, they are virulent; when positively chemotactic, they are avirulent. In immunizing animals, only those varieties of streptococci are used which, coming from severe human infections, have not changed in virulence. The mechanism of this action is as yet purely theoretical. Forty-five cases in which antistreptococcus serum was employed are described in detail, including cases of puerperal sepsis, septic endocarditis, erysipelas, meningitis, pneumonia, abscess, appendicitis, tonsillitis, purpura, rhinitis and furunculosis. The single doses varied from 10 to 30 cc. Eruptions, fever and vague pains may follow the injections. The effect of the serum was marked in most cases, noticeable improvement of symptoms following the injections. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

University of Pennsylvania.—The following appointments have recently been made in the Medical School: Dr. J. L. Gates, assistant demonstrator of pathology; Dr. Hidaya Noguchi, assistant in pathology; and Dr. John T. Carpenter, Jr., instructor in ophthalmology.

Jefferson Medical College.—Dr. Addinell Hewson, for many years demonstrator of anatomy, has just been appointed assistant professor of anatomy.

Pathological Society.—At the meeting held October 9, the following officers were elected for the ensuing year: President, Dr. C. W. Burr; vice-presidents, Drs. A. Stengel, S. Flexner, J. McFarland and M. P. Ravenel; secretary, Dr. J. D. Steele; treasurer, Dr. T. S. Westcott; recorder, Dr. D. Riesman, and curator, Dr. W. W. Babcock.

Pennsylvania State Medical Examining Board.—The following statistics show the results of the last 2 examinations held by this Board:

College	December, 1901.					
	No. Ex.	No. Passed	No. Failed	Per ct. Passed	Per ct. Failed	Gen. Aver.
Univ. of Pa.,	14	14	—	100.00	—	82.78
Jeff. Med. Coll.,	15	13	2	86.67	13.33	80.21
Med.-Chir. Coll.,	15	11	4	73.34	26.66	76.39
Woman's Med. Coll.,	—	—	—	—	—	—
Western U. of Pa.,	19	14	5	73.68	26.32	76.25

June, 1902.						
Univ. of Pa.,	89	87	2	97.76	2.24	84.54
Jeff. Med. Coll.,	86	83	3	96.52	3.48	82.47
Med.-Chir. Coll.,	76	68	8	89.48	10.52	80.45
Woman's Med. Coll.,	19	19	—	—	—	82.91
Western U. of Pa.,	59	49	10	82.78	17.22	79.31

Hebrew Orphanage.—Two children with scarlet fever have been removed from the Hebrew Home for Orphans, at Tenth and Bainbridge streets. Forty other children in the institution have been isolated, and the building has been thoroughly fumigated and disinfected. The 2 children suffering from scarlet fever were taken to the Municipal Hospital.

Philadelphia Obstetrical Society.—At the last meeting, held October 2, Dr. F. C. Hammond was appointed secretary, taking the place of Dr. F. W. Talley. No other changes were made in the officers. Dr. J. M. Fisher is president, Drs. R. C. Norris and W. Krusen are vice-presidents, Dr. J. W. West is treasurer, and Dr. H. D. Beyea is curator.

Smallpox in Pennsylvania.—The report of the State Board of Health for September shows 533 cases with 35 deaths, an increase of 45% over August. This is also equal to the combined number of cases for July and August. The State Board of Health is unable to do much on account of lack of funds. The Board believes, however, that no person need fear vaccination on account of tetanus, and urges vaccination as the preventive against smallpox.

Society Meetings Next Week.—The following societies will meet next week, at the College of Physicians, Philadelphia, at 8.15 P. M.; Tuesday evening, October 21, Section on Ophthalmology of the College of Physicians; Wednesday evening, October 22, County Medical Society, and Thursday evening, October 23, Pathological Society.

WESTERN STATES.

Effective Quarantine.—The United States Army transport *Sherman*, which left Manila September 2 and reached Nagasaki with cholera on board September 9, arrived at the San Francisco quarantine station, October 9. While no communication was permitted with the ship, a megaphone message conveyed the news that no sickness had occurred on board since leaving Nagasaki. The *Sherman* was quarantined at Merivales and at Nagasaki. Thirteen cases of cholera occurred, 9 of which proved fatal. She is now under quarantine at San Francisco.

Dr. Lorenz in Chicago.—Dr. Adolf Lorenz, professor of orthopedic surgery in the University of Vienna, performed his bloodless operation, October 13, before students and in-

structors of the College of Physicians and Surgeons, Chicago. On October 15, he again performed this operation for congenital dislocation of the hip, before the Chicago Medical Society. Again, on October 17, he demonstrated the technique of his operation before the students at the Cook County Hospital.

Oregon State Medical Society.—At the last meeting, held September 11, the following officers were elected: President, Dr. Henry Waldo Coe, Portland; vice-presidents, Drs. F. W. Van Dyke, Grant's Pass; J. A. Geisendorfer, The Dalles, and J. P. Tamiesie, Hillsboro; secretary, Dr. A. D. Mackenzie, Portland, and treasurer, Dr. M. Cardwell, Portland.

Plague in San Francisco.—Since March, 1900, 80 cases of bubonic plague have occurred in San Francisco, according to the Health Reports for the week ending September 28. One case occurred in February, 1902, one in April, 3 in May, 5 in July, 10 in August and 8 in September, up to September 28, making a total of 28 cases so far this year. They occurred mainly in Chinamen and were almost all fatal.

On October 14, Dr. Lorenz appeared before the Illinois State Board of Health, and was given a thorough oral examination by the members of the Board, which issued to him a license to practise medicine in the State of Illinois on the following day.

SOUTHERN STATES.

Maryland Tuberculosis Commission.—Early in the year a commission, consisting of Drs. W. S. Thayer, Lillian Welch, Baltimore, and Frank Hines, Chestertown, with Messrs. G. S. Brown and John Glenn, Baltimore, was appointed to investigate the causes of tuberculosis in Maryland, to determine its relation to the public health, and to devise ways and means for the restriction and control of the disease. From 1881 to 1901, 23,861 people died of consumption in Baltimore alone. At present less than 100 patients can obtain care in Maryland institutions at any one time. In the entire country there are but 34 hospitals, homes or camps for the treatment of consumption. The members of the commission, recently appointed by the Governor, will serve without pay for 2 years. For defraying the necessary expenses of the commission, \$4,000 have been appropriated. The first meeting of the commission was held August 23, the second, October 8. A report containing the results of the most recent investigations upon the nature of tuberculosis, and the various ways in which infection may occur is being prepared. The next meeting has not been announced.

Jackson Hospital, Salisbury, Md.—The corner-stone of this institution, the gift of Mr. W. H. Jackson, was laid upon his birthday, October 13. The speech of dedication was delivered by Judge Henry Page.

To Exterminate Mosquitoes by Disease.—The chairman of the Public Order Committee of the Council of New Orleans intends to introduce a plan for exterminating mosquitoes by causing a fungus disease among them. He argues that the infection of the mosquitoes with such a disease will exterminate them at much less cost than by any other means proposed. The professors of biology in the Universities of Wisconsin and Chicago insist upon the possibility of infection in this manner. That this infection occurs has been shown by Professor R. H. Pettit, who found a number of mosquitoes killed by this disease. It is closely related to the one which kills flies in the autumn. The mosquitoes are found attached to the surface upon which they die by filaments of the fungus extending from the body of the insect. The body of the insect is filled with mycelia of the fungus, which finally completely covers the mosquito. Spores appear upon the outside of the mosquito, which are forcibly ejected into the air, and, coming in contact with other mosquitoes, infect them.

Post-Graduate Medical School, Washington, D. C.—A meeting of prominent physicians was held at the residence of Surgeon-General Sternberg, U. S. A., retired, October 8, to take steps toward the formation of a post-graduate medical school in Washington. The matter was discussed, and it was decided to hold another meeting in a short time.

Johns Hopkins Hospital Historical Club.—At the first meeting, held October 13, with Dr. H. A. Kelly as president, papers were read by Dr. W. R. Steiner, on some early autopsies in the United States, and by Dr. William

Osler, on William Beaumont, a pioneer American physiologist.

CANADA.

(From our Special Correspondent.)

McGill University.—Out of almost 1,000 students attending the University this year, almost 400 are studying medicine. Through the death of the late Dr. W. W. Johnston, the chair of hygiene is vacant. Among the candidates for this position are Dr. Balfour, of Edinburgh; Dr. A. C. Abbott, of Philadelphia, and Dr. Westbrook, of Minneapolis. This chair was founded in 1893, by Lord Strathcona.

Health Officers' Convention.—The executive health officers of Ontario met at Berlin, September 9 and 10, with Dr. Kitchen, St. George, as president. Among the subjects discussed were: Vaccination, by Professor W. T. Connell, Princeton; the control of smallpox, by Dr. R. Law, Ottawa; diphtheria in fowls, by Professor Harrison, Guelph; and the control of diphtheria, by Dr. J. S. Wardlaw, Galt. The following officers were elected for the ensuing year: President, Dr. T. Macfarlane, Ottawa; vice-president, Dr. G. H. Bowlby, Berlin; secretary and treasurer, Dr. P. H. Bryce, Toronto.

Toronto Orthopedic Hospital.—The new building has just been opened at a cost of \$40,000. Thirty patients are already in the hospital, which is in charge of Drs. B. E. McKenzie and H. P. H. Galloway. There are private wards and a large public ward for 22 patients. There is also a dispensary for out-door patients.

Quebec Medical Board.—The medical board of the province of Quebec has decided that all medical students must have taken a complete classical course before entering upon the study of medicine. If this resolution should become a law, it would bar all English students from the study of medicine in Quebec, as none of them have ever taken the classical course of a French University. Dr. Lachapelle states that the equivalent B. A. degree in English will be accepted. This proposed legislation is said to be aimed at the combined 6 years' college and medical course given by McGill University.

Dominion Registration.—This has probably received a setback at the hands of the Quebec Medical Board. It is expected, however, that a ratification measure will be introduced at the coming session of the legislature. As soon as the Dominion measure has been ratified by each of the provincial legislatures, it will then become operative in every part of the Dominion of Canada.

MISCELLANY.

Isthmus of Panama.—Captain Potter, of the U. S. steamship *Ranger*, writes from Panama, September 29, that the health conditions of the isthmus are very unsatisfactory, both yellow fever and dysentery prevailing upon the Colombian troops stationed on the Isthmus. The steamship *Equador*, which reached Panama October 12, was held 5 miles out in the bay, because there was a case of yellow fever on board. The patient died soon after the vessel was placed in quarantine, where she will be held 8 days. No cases of yellow fever are reported in the city of Panama.

Egyptian Medical Congress.—Major W. C. Gorgas, Surgeon, U. S. A., has been designated by Surgeon-General O'Reilly to represent the United States at the First Egyptian Medical Congress in Cairo, December 16. The cholera epidemic in Egypt this summer, which was one of the main reasons for the congress, is now well under control. For the week ending October 11, 971 new cases, with 916 deaths, were reported.

Bubonic Plague in Australia.—Under the date of August 24, a second suspected case of bubonic plague was reported at New Castle, N. S. W. No official notice was taken of the case.

Obituary.—Dr. Edward Miller Cameron, at New York City, September 28.—Dr. Maximilian Muffat, at Palatine, Ill., September 30, aged 50 years.—Dr. Charles Boodey, at Cochituate, Mass., September 30, aged 64 years.—Dr. Watson W. Archer, at Clifton Springs, N. Y., September 25, aged 67 years.—Dr. J. E. Carver, at Hill Crest, Graffenburg, Pa., October 9.—Dr. Abel Mix Phelps, at New York City, October 6, aged 51 years.—Dr. John W. Taylor, at Madison Court House, Va., October 4, aged 77 years.—Dr. Davidson, at Ashland, Wis., October 4.—Dr. Alfred William Stratton,

at Gulmarg, India, August 23, aged 39 years.—Dr. John J. Haptonstall, Stone Cliff, W. Va., September 26.—Dr. Edmund B. Scribner, at Louisville, Ky., September 26, aged 45 years.—Dr. Charles W. Bowen, at Westfield, Mass., October 10, aged 58 years.

GREAT BRITAIN, ETC.

Peritonitis with Appendicitis.—At the opening of the new operating rooms of the Liverpool Infirmary, October 10, Sir Frederick Treves delivered an address on modern surgery, in which he stated that peritonitis, when it occurs in appendicitis, is but the outcome of nature's vigorous efforts to save the patient's life. The symptoms of peritonitis, formerly regarded as dangerous, he believes should now be looked upon as a sign of action of the resisting powers of the organism. The occurrence of the symptoms of peritonitis should be regarded as a means of guiding the physician in the treatment which he should adopt. The old method of treating each symptom as it appears has fallen into absolute disuse among the first-class surgeons of to-day.

Charing Cross Medical School.—C. F. M. Ward, professor of physiology at University College, Sheffield, has been appointed lecturer in physiology in Charing Cross Hospital Medical School, succeeding Benjamin Moore, who has recently been elected to the newly established chair of biological chemistry at University College, Liverpool.

Bubonic Plague in India.—In order to eradicate the plague in India, the Cannanore Municipal Government has offered the reward of one cent for every large rat and a half cent for every small one brought from within the municipal area. During last July 4,229 antiplague inoculations were performed in the Punjab, bringing the grand total of such operations, from October, 1897, to August, 1902, up to 689,609.

CONTINENTAL EUROPE.

A Case of Precocious Growth.—In the *Gazette Médicale de Paris*, September 27, 1902, Baudouin reports the case of a child of 3 years, but a fracture of an inch below 4 feet in height. The boy, who was born at St. André Treize Voies, in the province of La Vendée, France, weighs 77 pounds. His mother was 37 years old at his birth, his father 39, both in good health. This child is their third, the 2 older children, girls of 16 and 12 years, both being large for their ages. The boy, besides being big all over, shows remarkable genital development.

Italian Congress on Internal Medicine.—The 12th. annual meeting will be held in Rome, October 28 to 31, under the presidency of Professor Guido Baccelli.

The Transmission of the Plague.—Dr. Gosio, of Naples, has indicated a possible vehicle of plague transmission in bats, which are known to swarm with parasites. In a recent epidemic of bubonic plague in Naples, the bats were suspected of having conveyed the disease from an isolated building near the town. Dr. Gosio has proved that bats are very susceptible to the plague, and that it is rapidly fatal to them, the bacilli multiplying with great rapidity in their bodies.

International Conference on Tuberculosis.—The next meeting will be held in Berlin, October 22, to last 5 days. The subjects to be given consideration are the position of governments regarding the prevention of tuberculosis; the obligation to give information to the police; the organization of dispensaries; the duty of schools with regard to the prevention of tuberculosis; precautions against the dangers of milk; tuberculosis during infancy; protection of labor and prevention of tuberculosis and the classification and different modes of accommodating consumptives.

Death of Dr. Stokvis.—The death has just been announced of Professor Barend J. Stokvis, of Amsterdam, the well-known Dutch physician. He was born in 1834 and studied medicine at the Universities of Amsterdam and Utrecht, under Donders and Schroeder van der Kolk, taking his degree in 1856. In 1874 he became professor of pathology in the University of Amsterdam, and, in 1877, professor of pharmacology. He was the author of a great number of articles, those which are best known being on diabetes, albuminuria and cholera.—The death is also announced of Dr. Karl E. Hasse, formerly professor of internal medicine and director of the medical clinic at Göttingen. His death occurred in Hanover, in his 93d year.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

September 27, 1902. (No. 2178.)

1. A Discussion on the Pathology of Nerve Degeneration. FREDERICK W. MOTT, JUDSON S. BURY, J. GORDON WILSON, C. S. SHERRINGTON, and VICTOR HORSLEY.
2. Cinematograph and Lantern Demonstration upon Nervous Diseases in the Lower Animals. CHALMERS WATSON.
3. A Note on the Condition of the Central Nervous System in a Case of African Lethargy. W. B. WARRINGTON.
4. A Discussion on the Place of Bacteriological Diagnosis in Medicine. G. SIMS WOODHEAD, D. J. HAMILTON, R. H. FIRTH, SHERIDAN DELEPINE, WM. G. SAVAGE, GEORGE LESLIE EASTE and R. M. KALAPESI.
5. An Inquiry into the Influence of Soil, Fabrics and Flies in the Dissemination of Enteric Infection. R. H. FIRTH and W. H. HORROCKS.
6. A Case of Arrested Development of the Cerebellum and its Peduncles; with Spina Bifida and other Developmental Peculiarities in the Cord. KEITH MONSARRAT and W. B. WARRINGTON.
7. A Discussion on the Relationship of Human and Bovine Tuberculosis. D. J. HAMILTON, SHERIDAN DELEPINE, THEODORE SHENNAN, W. P. NOR-THRUP and ROBERT MAGUIRE.
8. A Case of Thrombosis of the Cerebral Veins and Sinuses Associated with Bronchopneumonia. THEODORE FISHER.
9. Rheumatic Myocarditis. THEODORE FISHER.
10. A Discussion on the Fetal Bone Disease. J. W. BALLANTYNE, W. STOELTZNER, A. BAGINSKY and JULES COMBY.
11. Bilharzia Hematobia in Cyprus. GEORGE A. WILLIAMSON.
12. Contributions to the Study of Bacillus Pestis. BRUNO GALLI-VALERIO.
13. Statistics of the Blood Examination in Cases of Malaria in Cyprus during a Period of 12 Months. GEORGE A. WILLIAMSON.
14. Remarks Concerning the Nomenclature, Etiology and Prophylaxis of the Intermittent Fevers. L. W. SAMBON.
15. The Leukocytes in Malaria. CHARLES H. MELLAND.
16. A Summary of the Vaccination Laws of the Chief Countries of the World. Foreign and Colonial. W. ARNOLD THOMSON.
17. An Address on the Pathology of Hodgkin's Disease. T. LAW WEBB.
18. An Address on the Ethical Position of the Profession. MARK WARDLE.
19. Observations on the Horns of Animals. GEORGE WHERRY.
20. A Simple and Effectual Method of Sterilizing Catgut. A. W. MAYO ROBSON.

1.—In a spinal cord in which Marchi staining showed the reaction of degeneration on one side, less phosphorus was yielded on chemical examination of that side than from the other side. Mott, therefore, concludes that the Marchi reaction depends upon the splitting of lecithin into simpler bodies, such as choline, glycerophosphoric acid and stearic or oleic acid. The choline or glycerophosphoric acid escape into the blood, and the nonphosphoretted fatty substance is left behind and is blackened by the action of osmic acid. Further study led him to believe that choline might be a toxic agent in rapid degenerative processes such as general paralysis of the insane. He has been able to show the successive changes in the histology of the degeneration of nerves with the disappearance of phosphorus,

increase of water in the nervous tissues and the appearance of choline in the blood, experimentally. When a solution of choline hydrochloride in normal salt solution is injected into the vein of an animal, a fall in bloodpressure results unless the animal is previously atropinized. The same result was obtained with alcoholic extracts of the blood and cerebrospinal fluid which chemical tests showed contained choline. The discussion on the **pathology of nerve degeneration** was continued by Wilson, who said that the primary changes are observed in the primitive fibrillæ after section of a nerve before they are seen in the medullary sheath. Stewart said that there are 2 factors necessary for the regeneration of a nerve fiber, (1) the presence of neurilemma cells to act as neuroblasts and (2) the re-establishment of conduction impulse to and from the central nervous system. [J. M. S.]

3.—Warrington has examined the tissues from a case of **African lethargy**. On staining the pia arachnoid by the ordinary staining methods those membranes were found to be infiltrated with round cells. In the brain and spinal cord there was marked distention of the perivascular lymphatics with lymphocytes. This condition could be seen spreading into the substance of the brain from the pia. The Nissl method showed that the larger cells were normal. The Marchi method failed to show any degenerated myelin in the brain; but in the cord, where the changes in the perivascular lymphatics were most marked, there were indications of the breaking down of the nerve fibers. [J. M. S.]

4.—Woodhead opened a discussion on the **place of bacteriological diagnosis in medicine**. He is satisfied that in the majority of cases of diphtheria a single bacteriological examination is not sufficient to warrant a diagnosis of complete disappearance of the bacilli. The bacteriologist, like the physician, must consider it his duty to keep his patient under continued observation, and must be as thoroughly satisfied of the disappearance of the bacilli as the physician must be of the disappearance of the clinical symptoms of the signs of the disease. Firth said that in questions concerning the purity of water-supplies, the condition of sewage effluents or the purity of milk and butter, the value of bacteriological examinations is becoming increasingly recognized. Savage said that in the relationship between bacteriological diagnosis and state medicine one must protest against the attitude still adopted by the clinician. [J. M. S.]

5.—From a study of the influence of soil, fabrics and flies in the dissemination of enteric fever, Firth and Horrocks conclude: (1) That there is no evidence to show that the enteric bacillus, when placed in soil, displays any disposition or ability to increase in numbers or to grow upward, downward or laterally. (2) That the enteric bacillus can be washed through at least 18 inches of soil. (3) That the enteric bacillus is able to assume a vegetative existence in ordinary sewage-polluted soil and survive therein for as long as 74 days. (4) That the presence of organic or nutritive material in the soil appears to have no influence on the existence of the bacillus. (5) That an excess or great deficiency of moisture in the soil appears to be the dominant factor affecting the possibility of recovering the enteric bacillus from the soil. (6) That from fine, dry sand the enteric bacillus can be recovered on the twenty-fifth day. That from fine moist sand the enteric bacillus cannot be recovered later than the twelfth day, probably because it is washed down into the deeper sand layers by the liquids added. (8) That the enteric bacillus appears to die out rapidly in peat. (9) That from ordinary soil kept damp by the addition of rain water the enteric bacillus can be recovered up to the sixty-seventh day. (10) That from a similar soil kept damp by the addition of raw sewage the enteric bacillus is recoverable up to the fifty-third day. (11) That, when the addition of diluted sterile sewage is made to a similar soil, the enteric bacillus is recoverable up to the seventy-fourth day. (12) That in a similar soil, after a heavy rainfall, the enteric bacillus at once disappears from the surface layers. (13)

That, from a similar soil allowed, after inoculation, to become so dry as to be readily blown about as dust, the enteric bacillus can be recovered up to the twenty-fifth day, and that enteric infective material can be readily translated from dried soil and sand by means of winds and air currents. (14) That, in a sewage polluted soil recovered from beneath a broken drain, the enteric bacillus is able to survive up to the sixty-fifth day. (15) That, from a piece of khaki inoculated with an emulsion of enteric bacillus and then allowed to become dry, the organism is recoverable up to the seventy-fourth day. (17) That, from a piece of blue serge similarly treated the enteric bacillus is recoverable on the seventy-eighth day. (18) That, from a piece of khaki fouled by liquid enteric feces and then allowed to dry, the micro-organism is recoverable on the seventeenth day. (20) That the enteric bacillus is able to survive in surface soil an exposure to 122 hours of direct sunshine, extending over a period of 21 consecutive days; that from a piece of infected serge the enteric bacillus is recoverable after the fabric is exposed to 50 hours of direct sunshine spread over a period of 10 days. (21) That ordinary house flies can convey enteric matter from specific excreta or other polluted material to objects on which they may walk, rest or feed; that such infected matter appears to be attached not only to their heads but also to their legs, wings and bodies. [J. M. S.]

6.—Monsarrat and Warrington report the case of a female child, aged 6 weeks, who had marked hydrocephalus. There was the scar of a healed spina bifida in the lumbar region; the child also had right talipes varus and paralysis of both legs. She died from gastro-enteritis. At the autopsy the spinal cord was found attenuated in structure throughout and to pass, in the lumbar region, into a mass of cicatrix at the level of the spina bifida. In the medulla, the anterior pyramids and the inferior olives were absent and the medulla passed insensibly into the pons. The cerebellum was extremely rudimentary. [J. M. S.]

7.—Hamilton says that the general inclination at the present time, in spite of what Koch has asserted to the contrary, is to regard **bovine tuberculosis** as equally virulent for man and most of the domestic animals. Northrup said that the evidence of primary mesenteric lymphnode infection seems to be properly assured in 1% of cases. [J. M. S.]

8.—Fisher reported the case of a girl, aged 4 years, who had suffered from diarrhea for 2 weeks. Five days after admission the signs of consolidation at the base of the right lung were discovered. Two days later the patient had a tonic convulsion affecting the right half of the body. The fluid obtained by a lumbar puncture was found to contain a diplococcus. At the autopsy the posterior 2/3 of the **superior longitudinal sinus** were found blocked by a **thrombus** which extended into the **cerebral veins** on each side and into both **lateral sinuses**. Both middle ears contained some pus, and the lungs showed a condition of bronchopneumonia. Diplococci were found in the thrombus. [J. M. S.]

9.—Fisher reports 2 cases of **rheumatic myocarditis**. [J. M. S.]

10.—Ballantyne points out that part of the skeleton may be in the fetal while another part is in the embryonic stage of its existence. If the causes that produce rachitic changes in the bones in early life are active in fetal life, they will not produce the same changes, but will produce other changes which will lead to malformations of the skeleton. The mother's body is the atmosphere in which the fetus lives, but it is through the placenta that changes in this atmosphere react upon the fetal tissues. The placenta may so protect the fetus that it becomes the preferred part of the 2 organisms. On the other hand, where perhaps all else is healthy, the placenta may be defective and then the fetus is not supplied with all the materials it needs, and its growth and development are interfered with. These considerations, he believes, are sufficient to explain how a healthy woman may have an ill-nourished and rachitic fetus, while a cachectic and anemic mother

may give birth to a healthy and well-nourished child. Stoeltzner divides fetal bone diseases into those that are due to an arrest of periosteal ossification and those that are examples of chondrodystrophia. The question of rickets or not rickets can only be decided by a histological examination. He believes that the disease produced in the bones of a dog by depriving it of lime salts is not rickets, but is osteoporosis. Baginsky believes that the condition produced experimentally in the lower animals is an example of genuine rickets. He points out that scorbutic changes and rickety changes may occur in the bones of the same child. Comby points out the difference between rickets and achondroplasia. [J. M. S.]

11.—Williamson reports a case of *bilharzia hematobia* in Cyprus. [J. M. S.]

14.—Sambon believes that the term *malaria*, which means bad air, should be abolished. He suggests that it be replaced by *intermittent fever* or *hemocytozoal fever*. [J. M. S.]

15.—Melland shows that in *malaria* the large mononuclear and the transitional *leukocytes* are increased. He publishes a table of 10 cases. [J. M. S.]

17.—Webb believes that in *Hodgkin's disease* it appears likely that we have a condition similar to that found shortly after splenectomy and probably brought about in the same way. [J. M. S.]

20.—Robson describes a method of sterilizing catgut. [F. T. S.]

LANCET.

September 27, 1902.

1. Three Lectures on Some Morbid Conditions of the Mouth. (Lecture I.) EDMUND W. ROUGHTON.
2. The Radical Treatment of Chronic Intestinal Tuberculosis with Suggestions for Treatment in More Acute Disease and in Tuberculosis Peritonitis.
A. W. MAYO ROBSON.
3. Clinical Remarks on Some Tumors of the Anterior Abdominal Wall. FRED. D. BIRD.
4. Notes on the Recent Cholera Outbreak in Canton, South China. W. J. WEBB ANDERSON.
5. Some Cases of Chronic Pancreatitis.
B. G. A. MOYNIHAN.
6. Pythogenic Pneumonia. A. H. COPEMAN.
7. On Two Cases of Paralysis Complicating Gonorrhea.
T. R. GLYNN.
8. Operations under Analgesia Produced by Intraspinal Injections of Cocaine. H. LITTLEWOOD.
9. Leukocyte Enumeration for Routine Work.
WILLIAM G. SAVAGE.
10. Buphthalmos; or Congenital Hydrophthalmos.
GEORGE WHERRY.
11. A Note on Syphilis in Relation to Life Assurance, with an Examination of 500 Consecutive Claims.
E. PARKES WEBER.

1.—To be abstracted when concluded.

2.—Robson reports 7 cases in which he has operated for *chronic tuberculous lesions of the intestinal tract* and makes the suggestion that it would probably be advisable to resort to surgical treatment in the more acute cases. In the majority of the cases reported the disease was limited in extent, and it was removed by intestinal resection. The results from these operations have been very satisfactory in Robson's hands. In one case of multiple tubercular strictures of the ileum short circuiting was resorted to successfully. Stricture, the result of old tuberculous ulcers, was frequently met with, and a diagnosis of this condition prior to operation was not difficult. Chronic tuberculous ulceration leading to stricture is not very common, however, although it is thought by Robson that perhaps some cases of supposed malignant disease are in reality tuberculous in origin. He refers to 2 cases in which he operated, finding what he supposed to be malignant disease and which he could not remove. In these

cases the patients made such satisfactory recoveries that he is forced to believe the condition to be tuberculous. The suggestion is made of short circuiting to relieve the more acute tuberculous inflammations of the intestinal tract. [J. G. H.]

3.—Bird refers to the difficulty often met with in making a *diagnosis of tumors of the anterior abdominal wall*, and lays particular stress upon the danger of mistaking a *gumma* in this situation for a *sarcoma*. Such a mistake leads to a hopeless prognosis or to a mutilating operation. Even when the condition is a *gumma*, *antisphyilitic treatment* alone will frequently not result in its removal. The author refers to a number of cases in which *gummata* closely resembled new growths. Abscess of the abdominal wall may also sometimes simulate *sarcoma* very closely. Bird has seen 5 cases of *hydatid cysts of the rectus*, and this is another condition which may easily deceive the surgeon. [J. H. G.]

4.—Anderson contributes notes on the recent *Cholera outbreak in Canton, South China*. He mentions that, from time to time, cholera assumes an epidemic form of grave dimensions in Canton. Small outbreaks have occurred since the great epidemic of 1894. He points out that during this year that country suffered from prolonged drought and intense heat. He has endeavored to compare the clinical course of cholera and the effects of the treatment. The onset in every case was sudden, particularly in the earlier cases when the disease was most virulent; vomiting and diarrhea were early signs. Delay in the treatment of this stage meant certain death, and he states that he has not seen one patient recover when treatment was delayed, that is, during the early weeks of the epidemic, while toward the end of the epidemic the virulence of the disease decreased, and spontaneous recovery sometimes took place. The earlier the onset of cramps, the worse the prognosis, and his experience shows that the patient does not recover when cramps are a well-marked condition. He further points out that among his European patients as well as in the Chinese, slight cramps and small evacuations of watery fluid have been followed by recovery under treatment. He gives a detailed account of 2 cases. [F. J. K.]

5.—Moynihan reports 7 cases in which he has operated for *chronic pancreatitis*. He accepts Opie's division of the pancreas into interlobular and interacinar varieties. In all of the cases reported inflammation was of the interlobular kind. Diabetes in this variety is exceptional. The cases reported show the various stages in the progressive inflammation of the gland. In the earlier stages a thickening of the duodenal end is found; in the more advanced stage pancreatic inflammation becomes the dominant condition, and in the later stages it may exist alone after the irritation which gave rise to it has subsided. The treatment must mainly consist in the removal of the cause of the inflammation, such as stone in the common duct, cholangitis, etc. In all cases drainage of the gall-bladder is necessary. It is Moynihan's custom to fix an India-rubber tube into the gall-bladder or into the common duct by a single catgut suture and to allow it to remain until released by the absorption of the suture. [J. H. G.]

6.—Copeman discusses *pathogenic pneumonia*. He reports a number of cases and also gives a report of a limited epidemic. The chief points of the epidemic were: (1) The very sudden onset; (2) the high temperature and (3) the extraordinary manner in which the patients appear to be prostrated from the very onset of the attack. [F. J. K.]

7.—Glynn reports 2 cases of *paralysis complicating gonorrhea*, which lend much support to the relationship between gonorrhea and paralysis in the reports of cases. He mentions that peripheral neuritis is invariably due to some toxic agent, often to bacterial infection. Many cases of peripheral neuritis have been set down to gonorrheal infection, and experiment has indicated that the toxin of the gonococci is capable of exerting a morbid influence on the nerve tissues—central and peripheral. In his cases

there was evidence of gonorrheal infection in the joint trouble, and no other source of intoxication could be discovered; he mentions that this is a weak point in his argument, because in some few cases of multiple neuritis, poliomyelitis and Landry's paralysis no origin of intoxication can be recognized. [F. J. K.]

8.—Littlewood relates 11 cases in which he has operated under **analgesia** produced by the **intraspinous injection** of cocaine. With one exception the method was perfectly satisfactory, and in no case were there serious symptoms. It is not thought, however, that spinal analgesia is greatly superior to other methods, and the author has not employed it since April, 1901. [J. H. G.]

9.—Savage suggests a **method for leukocyte enumeration in routine work**. He writes that the method briefly is as follows: Use a Thoma-Zeiss pipette—i. e., the one ordinarily used for red corpuscles—and collect the blood exactly as for the enumeration of red corpuscles except that the blood should always be collected up to the 1.0 mark, and the dilution should be made with some colored fluid such as Toisson's solution or Sherrington's fluid. The red corpuscles are first counted in the ordinary way. To count the leukocytes draw out the eyepiece until a diameter of the field of vision is just spanned by an exact number of squares. Call this number X —i. e., X = the number of squares which exactly stretch across the diameter of the field of vision. The ruled squares need now no longer be taken into account, but only the fields of vision. Count the number of leukocytes in any recorded number of the fields of vision, taking care that the fields do not in any way overlap. The stained leukocytes can readily be distinguished from the red corpuscles. Divide the number of leukocytes by the number of fields of vision counted to obtain the average number per field of vision. Let this equal y —i. e., y = the average number of leukocytes per field of vision. The larger the number of fields of vision counted, the better. Then, with the blood diluted 100 times, the number of leukocytes per cmm. = $5,600,000/11x^2$; x and y only have to be determined and a simple calculation gives the result. [F. J. K.]

10.—Wherry reports 3 cases of **buphthalmos**, or **congenital hydrophthalmos**, which illustrate the 3 stages of growth of this condition from infancy to adult age and its clinical course. [F. J. K.]

11.—Weber discusses **syphilis in relation to life assurance**, with an examination of 500 consecutive claims, and in his opinion syphilis played a part in 18 out of 500 cases (8 cases of general paralysis, 4 cases of tabes dorsalis, 3 cases of brain disease and 3 cases of cardiac or aortic disease)—i. e., in 3.6 per cent. This he considers a conservative estimation. [F. J. K.]

MEDICAL NEWS.

October 11, 1902. (Vol. 81, No. 15.)

1. The Teaching of Surgery, with Especial Reference to Didactic Methods. JOSEPH D. BRYANT.
2. Contribution to the Diagnosis of Renal Calculus. FREDERICK BIERHOFF.
3. The Criminal Equivalent of Insanity. WILLIAM B. NOYES.
4. Apocynum Cannabinum in Some Dropsical Conditions. M. L. HILDRETH.
5. The Etiology of Shock. H. H. STONER.
6. How Much Do We Possibly Know About Tuberculosis? F. C. McGAHEY.
7. An Instance of Accidental Vaccination. GEORGE W. KOSMAK.

1.—Bryant states: (1) that a thorough didactic foundation is absolutely necessary for the proper attainment of surgical knowledge; (2) that clinical teaching fits the student for the intelligent use of didactic facts; (3) that didactic teaching with limited clinical opportunity begets ponderous theorizing with a minimum of practicability; (4) that clinical teaching with limited didactic opportunity begets much of unreasoning imitation with limited logical deduction. [T. M. T.]

2.—Bierhoff reports a number of cases of **pyelitis** in which a diagnosis was made by repeatedly distending the renal pelvis with some bland sterile fluid. The procedure was followed within 24 hours by a distinct hematuria. Where no stone was present there was no hematuria. The method advised is as follows: A good-sized ureteral catheter is passed up into the renal pelvis, and through this tepid sterilized 1% boric acid solution is gently injected until the patient complains of a sensation of pressure in the renal region, usually about 30 cc. are required. The fluid is allowed to flow off, and the process is repeated until 250-300 cc. in all have been employed. [T. M. T.]

3.—Noyes classifies definite defects or diseases of the will as follows: (1) Impairment of the will by defect of impulse; (2) the will may be impaired through a morbid fear or dread, or through fixed ideas; (3) the will may be impaired through some excessive or uncontrollable impulse which may be instantaneous in its origin, or through something more gradual; (4) the will may be limited or practically destroyed by being controlled by the caprices of hysteria or hypnotism. Some of these pathological types of defective will may be better characterized as obsessions, meaning thereby a persistent and recurring idea. These may be: (1) Indifferent, and only troublesome from persistence; (2) those which excite well-marked emotion, such as grief or fear; (3) those suggesting some specific line of conduct, tending to become impulses, such as fulminating or impulsive obsessions being ideas occasioned by automatic cerebral activities which are repeated with great frequency and which invade the personality. [T. M. T.]

4.—Hildreth advises the use of **apocynum cannabinum**: (1) In the edema accompanying the varicose condition and varicose ulcers in elderly persons; (2) in general anasarca following pregnancy and confinement in which all of the connective tissue is filled with serum (waterlogged) with profound anemia or hydremia. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

October 11, 1902.

1. The Evolution of Urology. An Opening Address Delivered at the Annual Meeting of the American Urological Association, held at Saratoga, N. Y., June 13, 1902. RAMON GUITERAS.
2. The Indications and Limits for Operation by the Vaginal Route. C. C. THIENHAUS.
3. The Silent Forms of Epilepsy. WILLIAM P. SPRATLING.
4. The Constitutional State vs. Catarrhal Deafness. SARGENT F. SNOW.
5. Septicemia and the Curette. H. Plympton.
6. A Contribution to the Treatment of Spasmodic Wryneck. GEORGE R. ELLIOTT.

1.—Will be abstracted when concluded.

2.—Thienhaus reports 3 cases in which he performed vaginal hysterectomy, and quotes the **advantages of the vaginal over the abdominal route**. By the vaginal operation it is possible to limit morcellation of a myomatous uterus, and it must be possible in narcosis to displace the tumor into the small pelvis, either from the vagina by forceps, or from the abdomen by pressure. Cases with large adhesions are therefore excluded from vaginal morcellation, as are myomatous tumors which have grown in a transverse direction, developing into the broad ligament. In patients who are exhausted from menorrhagia or continuous metrorrhagia, vaginal hysterectomy is the best method. After a full review of the literature of the subject, Thienhaus concludes that 2 requirements are necessary for surgery by the vaginal route; the greatest care in diagnosis and judgment in the selection of cases, and absolute familiarity with all abdominal procedures, because it may become necessary to resort to the combined vaginal and abdominal methods of operation. [M. O.]

3.—The **silent forms of epilepsy**, including petit mal and those more purely psychical, are considered more difficult of cure than those in which muscular commotion is the most prominent feature. These attacks are generally due to disturbance in the frontal lobes, and may be either psychomotor or purely psychical. Such psychical attacks may go unrecognized for years. They are especially common in neurasthenic and neurotic individuals. The condition is well shown in people who forget in a striking and

unusual way, who disappear for long periods of time, and who find themselves, with returning consciousness, in some distant place. There has simply been a lapse in the conscious operations of the mind, without any violence on the part of the body. [M. O.]

4.—Snow advises **constitutional treatment for the cure of catarrhal deafness**. Besides local treatment, he advises cold baths, proper underwear, regulation of the bowels, good habits and hygienic surroundings. Vigorous exercise is also recommended, especially in stout people. Without this treatment, together with nasopharyngeal treatment, it is impossible to handle a case of chronic catarrhal deafness successfully. [M. O.]

5.—Plympton describes the **abuse of the curette** on account of its liability to produce septicemia. Instead of using the sharp curette, he advises the gentle removal of whatever fragments remain in the uterine cavity by means of forceps, care being taken not to tear any adherent piece from the wall. Beside this, he flushes out the uterine cavity with an alkaline solution at 110°. As a general rule, this is sufficient to prevent septicemia following the retention of part of the membranes, curettement being unnecessary. [M. O.]

6.—Elliott has devised an **apparatus for the treatment of spasmodic wryneck**, a condition seen only in neuro-pathic patients. This form of torticollis is purely a nervous disease, and is sometimes cured by the neurologist. His apparatus is described in detail and photographs accompany the article, illustrating its use. It is especially applicable in patients who have consulted a great number of physicians without benefit. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

October 9, 1902. (Vol. CXLVII, No. 15.)

1. Ultimate Results of Operations for Appendicitis. HOMER GAGE.
2. Chronic Laryngeal Obstruction Due to Enlargement of the False Cords; Tracheotomy; Later Partial Excision of False Cords. L. R. G. CRANDON.
3. The Modern Operation for Radical Cure of Umbilical Hernia. W. H. CONANT.
4. Sensory Hallucination and Its Analogues. ROBERT MacDOUGALL.

5. Massage in Fracture Treatment. EDWARD A. TRACY.
1.—Gage believes that operation for appendicitis, undertaken within the first few hours after the beginning of an attack, is probably but little more dangerous than when done in the interval. Out of 300 cases 240 were operated in the course of an attack; of these 35, or almost 15%, were fatal. In the first 100 the mortality was 17%, in the second about 14% and in the third 13%, showing a small but steady improvement. He had 173 cases in which the appendix was removed at the time of operation, with a mortality of 13%, and 67 in which it was not removed, with a mortality of 19%. [T. M. T.]

2.—Crandon, in relation to treatment, says that, inasmuch as the affection is usually secondary, the treatment consists of 2 parts: (1) The correction, as far as possible, of any abnormal condition of the air passages above the larynx; (2) in dealing with the laryngeal conditions, local applications of strong solutions of astringents, preferably silver nitrate, 10% to 20%, will slowly but eventually palliate most cases. Cases, however, in which the individual lives in constant fear of acute obstructive attacks, demand more radical treatment, namely, the partial excision of the enlarged false cords. [T. M. T.]

3.—Conant mentions the following facts: (1) Umbilical hernia in children, as a general rule, gets well with the use of a truss. (2) Strangulated umbilical hernia is to be operated on like any other hernia. (3) Radical umbilical hernia is to be operated on if the patient will give consent. Otherwise, a well-fitting truss is to be constantly worn, day and night. (4) Irreducible hernia is to be operated on unless there is some marked contra-indication like serious kidney or heart lesion. Age, and size of tumor need be no bar to an operation. (5) Operation to be preferred should combine rapidity of operation with diminution of shock, both by diminishing the hemorrhage and also the length of time the patient has to be under an anesthetic. (6) The use of cocaine when ether is contra-indicated. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 11, 1902.

1. Diagnosis of Chronic Indurative or Intestinal Nephritis. A. O. J. KELLY.
2. The Early Circulatory Indications of Chronic Bright's Disease. LOUIS FAUGERES BISHOP.
3. Uremic Aphasia. DAVID RIESMAN.
4. Improved Technique of Amputation and Treatment of the Stump in Appendectomy. JOSEPH RILUS EASTMAN.
5. The Successful Treatment of Gonorrhea and All Inflammatory Diseases of the Urethra by Packing it with Antiseptic Oiled Dressing. S. T. RUCKER.
6. Excision of the Gasserian Ganglion with Reports of Ten Cases Operated Upon by the Heartley-Krause Method. JOHN B. MURPHY and JAMES M. NEFF.
7. The Surgery of Rickets. HENRY LING TAYLOR.
8. Trephining for Brain Tumor; Report of Two Successful Cases—One of Nine Years. JOSEPH RANSOHOFF.
9. Some Facts about Vaccination. HEMAN SPALDING.
10. Two Cases of Retinal Detachment Treated with Subconjunctival Injection of Salt Solution. ROBERT L. RANDOLPH.

11. The Evolution of the Treatment of Pelvic Inflammation. E. E. MONTGOMERY.
12. Drainage Versus Radical Operation for Suppuration in the Female Pelvis. CHARLES P. NOBLE.

1.—See Philadelphia Medical Journal, June 21, 1902, page 1095.

2.—See Philadelphia Medical Journal, June 21, 1902, page 1095.

3.—See Philadelphia Medical Journal, June 21, 1902, page 1095.

4.—Eastman describes a **new technique in the operation of appendectomy**, which consists in applying a clamp to the appendix and severing the appendix with the Paquelin cautery. Burning of surrounding tissue is prevented by 2 detachable wings which were attached to the forceps; these are removed and Lembert sutures or a purse-string suture introduced. As the sutures are tied the forceps is withdrawn. [J. H. G.]

6.—To be abstracted when concluded.

7.—Taylor discusses the surgery of rickets and reaches the following conclusions: (1) Subcutaneous osteotomy of the shaft is a safe and certain operation for the correction of knock knees and bow legs. (2) It is nearly always to be preferred to cuneiform osteotomy, osteotomy into the joint (for knock knees) or operation by the open method. (3) The risk of nonunion of bone or other accidents, with asepsis and an experienced operator, are slight, and not increased in rickety subjects. (4) The commonest errors are imperfect correction, especially failure to overcome inversion of the feet, and relapse from improper dressings, or from operation before the subsidence of the rachitic process. (5) Plaster-of-Paris makes an excellent splint, completely controlling the position of the fragments when properly applied. Plaster or other splints should be worn for some months. (6) Subcutaneous tenotomy: (a) In its simplicity, certainty and freedom from complications. (b) In the advisability of correction of the deformity at the time of operation, in the facility with which union occurs and gaps are filled up, in the importance of careful and intelligent postoperative treatment, and in the permissibility of locomotion before firm union has occurred, provided the parts are perfectly controlled by splints. [J. H. G.]

8.—Ransohoff deals with the subject of **trephining for brain tumors** and reports 2 successful cases. The first of these was operated upon 9 years ago, and was reported by Hoppe. The author has performed 2 operations for supposed neoplasm, and but 2 of these operations were successful. The first patient continues well except for a slight paresis of the left extremities and epileptic seizures at intervals of 3 or 4 months. The patient was 32 years of age at the time of operation. The tumor was the size of a

hen's egg, and situated in the psychomotor area. There is no evidence of a return of the growth. The second patient was operated upon the first time on February 11, 1902. The dura was exposed and was normal in appearance, but devoid of pulsation. The opening in the skull was $3\frac{1}{2}$ inches long and 3 inches wide. Temporary sutures were introduced and a second operation done 3 days later. At this time the dura pulsated feebly; it was opened, but no tumor found. The patient was then put in the sitting posture which permitted a much freer palpation of the brain. The tumor was found $\frac{1}{2}$ inch below the surface in the ascending frontal convolution and was easily removed. A slight paraphasia and inability, except with great effort, to move the right hand and forearm followed the operation. The tumor in this case was a solitary tubercle. Three and a half months have elapsed since operation; the patient has gained 15 pounds and has had no convulsions of any kind; there remains, however, a decided weakness of the flexors of the thumb, the index and the middle fingers. In this case the general symptoms of brain tumor were altogether absent, that is, headache, choked discs and vomiting. The symptoms presented were altogether focal. This is explained by the fact that the tumor when removed displaced 12 gm. of water, a mass pressure to which the brain accommodates itself. With the development of symptoms of intracranial pressure the value of focal symptoms decreases. This explains the frequency of failure to find a tumor when seemingly unmistakable localizing symptoms are present. Against 104 cases in which operations were successful as to finding and removing a growth, there are 157 in which the operation was unsuccessful in one or the other regard. Ransohoff refers to the great advantage obtained by placing the patient in a sitting posture, this position causing the brain to recede to such an extent that palpation is permitted far beyond the limits of the cranial opening. In doing a two-stage operation the second operation can be done very satisfactorily under local anesthesia. This plan was successfully followed in the second case until it became necessary in order to remove the tumor to cut away more bone, when chloroform was administered. Haas has collected 122 operations which were successful as regards the removal of a tumor, and which presented a mortality of 61%. The high mortality is ascribed to shock and hemorrhage. Ransohoff thinks with the more general adoption of the two-stage operation this mortality will be greatly lessened. Tuberculous growths are nearly twice as common in the brain as any other type. In the cases operated upon, however, this variety is not so common, being present but 12 times, for instance, in Haas's 122 cases. Bergmann's dictum that solitary tubercle is ordinarily not suited for operation is believed to be incorrect, a number of cases having been reported in which patients have lived for a number of years after the removal of tuberculous growths. [J. H. G.]

9.—Spalding presents an article entitled *some facts about vaccination*. In his article he points out that, owing to a lack of exact knowledge from absolutely reliable sources on the subject of vaccination, there is a good deal of misapprehension in the public mind as to the efficacy of vaccination as a protection against smallpox, and there are many medical men who have not an exact knowledge on the subject of vaccination. He makes a plea for the re-study, from original observation by medical men who meet smallpox, of the subject of vaccination in relation to its protective influence, and he emphasizes that this evidence will leave no cause for dissension as to the virtue of vaccination when the existing evidence is properly recorded.

[F. J. K.]

10.—Randolph reports 2 cases of retinal detachment treated with subconjunctival injections of salt solution. The first case occurred in an Irishman who applied to the Johns Hopkins Hospital for treatment, about 2 years ago. A cataract had been removed from his left eye, 3 months after which detachment of the retina occurred. The patient had light-perception and nothing more. On April 20, 1900, the first hypodermic injection of a syringe-ful of nor-

mal salt solution was given. A compress bandage was applied after the injection. For a week this treatment was continued, injections being made every other day. The salt solution was strengthened each week for 5 weeks. After this treatment an ophthalmological examination was made, and it was found that the retina was in position with the exception of a small triangular area which was originally attached, no part of the fundus gave back a clear red reflex. The patient could count fingers at 2 feet. At the commencement of the sixth week he declined further treatment. The second case occurred in a man, 41 years of age, who presented himself on June 2, 1901, with the report that the day before he had noticed a veil pass suddenly across his sight, and he had not been able to see distinctly above the level of his head. More than the upper half of the retina was found detached. He was given the same treatment as the first patient and, after the treatment had been continued for 5 weeks, his vision was 20/40ths. with -5Ds. and the retina was everywhere attached. His vision remained in this condition for some time, but later his blindness returned, brought on, he thought, by a long ride over rough roads. The ophthalmological examination showed that the detachment was the same as in the first instance. The treatment was again begun, but after a short while the patient refused further treatment, and his sight grew steadily worse. A year afterward there was practically no change in his condition. [F. J. K.]

12.—See *Philadelphia Medical Journal*, June 21, 1902, page 1109.

AMERICAN MEDICINE.

October 11, 1902.

1. The Pathology of Chronic Specific Dysentery of Tropical Origin. CHARLES F. CRAIG.
2. Types of Infection Produced in Man by Intermediate Members of the Typhoid-Colon Group of Bacilli. WARREN COLEMAN.
3. Immunity in the Light of Recent Investigations. D. H. BERGEY.
4. Brewers' Yeast in Therapeutics. JULIUS ULLMAN.
5. An Additional Case of Typhoid Spondylitis. ALBERT H. FREIBERG.
6. Idiopathic Vaginismus and Sterility. E. CASTELLI.
7. Professor Nicolandoni's Clinic, Gratz. NICHOLAS SEMN.

1.—Craig discusses the pathology of chronic specific dysentery of tropical origin. He states that in the service of the U. S. A. General Hospital, Presidio, the acute forms of dysentery are seldom seen, almost all the cases being of the chronic variety. A number of these are chronic amebic dysentery, but a larger portion are what Craig considers the chronic stage of the acute specific dysentery of tropical origin, for the reasons, that the blood serum of these cases gives an agglutination reaction with a pure culture of the Shiga bacilli; a pure culture of this bacillus has been obtained from the intestines in a few of the cases of this form of dysentery. The observations recorded in his report are based upon autopsy findings in 103 cases of this form, of which 28 were of the follicular variety, 70 of the diphtheritic and the remainder of the gangrenous. This classification is a useful one, clinically, but the stages are merely different states of the same pathological process. In describing this form of dysentery he has detailed minutely: (1) The character of the dysenteric stools; (2) the gross and microscopical pathology of the follicular stage; (3) the gross and microscopical pathology of the diphtheritic stage; (4) the gross and microscopical pathology of the gangrenous stage, and (5) the bacteriology of chronic specific dysentery. Craig remarks that the use of the term "tropical dysentery," as denoting dysentery due to infection with the ameba, is unwarranted, in the sense that amebic dysentery is the only type occurring in the tropics. All of the cases studied originated in the tropics and are as really tropical as amebic dysentery. [T. L. C.]

3.—Bergey presents a paper on immunity, in the light of recent investigations, in which the views of various authorities are set forth. [T. L. C.]

4.—Ullman is of the opinion that **brewers' yeast** is a remedy of value in therapeutics, because of its **ferments, nuclein, nucleinic acid and phagocytic action**. Its use is not confined to any one disease, but it is indicated wherever an increased resistance of the organism is required. According to this writer it has proved itself of value in **furunculosis, diabetes, bronchitis, habitual constipation and even cancer and tuberculosis**. [T. L. C.]

5.—Freiberg reports a case of **typhoid spondylitis** occurring in a boy of 15. The symptoms developed in convalescence from an attack of enteric fever, about the sixth week. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

July 17, 1902.

1. Concerning Carbollysoform. ELSNER.
2. The Indications for the Surgical Treatment of Ulcerating Processes in the Lung. R. RIEGNER.
3. The Behavior of the Leukocytes in Human Blood under the Influence of Massage. E. EKGREN.
4. A Case of Gonorrheal Disease of the Spinal Cord with Unusual Localization. HERZOG.
5. Septic Endocarditis Cured by Intravenous Injections of Credé's Silver. C. L. KLOTZ.

1.—The substance is a mixture of 60 parts lysoform and 40 parts pure carbolic acid, this being made into a 5 per cent solution. It is **far less toxic than carbolic acid and is actively antiseptic toward staphylococci**. It also lacks the strong odor of carbolic acid. It is recommended as an antiseptic, particularly in staphylococcus infections.

[D. L. E.]

2.—Riegner considers that the **cases of lung disease most suitable for operation are those of acute or subacute gangrene**; simple abscesses are not usually suitable; chronic gangrene, bronchiectasis and tubercular cavities present little hope of improvement by pneumotomy. The localization of the lesion is absolutely essential for proper surgical intervention. A **localized gangrene may be diagnosed without the presence of signs of cavity**, through the existence of a circumscribed area of dulness surrounded by normal pulmonary resonance, associated with many remnants of lung-tissue in the sputum, particularly when this characteristic of the sputum appears rapidly. Finally, the Röntgen rays are very important in reaching a diagnosis. [D. L. E.]

3.—Ekgren presents a series of studies to show that massage, whether general or abdominal, produces a striking increase in the multinuclear leukocytes. [D. L. E.]

4.—It is now well known that gonorrhea occasionally produces disease of the spinal cord. In the case reported there was either **one large or numerous small areas in the posterior part of the lumbar cord**; the changes in sensation and the disturbances of co-ordination—which were both widespread—indicated strongly that there was a **disseminated myelitis** that was widely scattered. The condition rather closely resembled tabes—the pupillary symptoms, however, failing, and vesical and rectal disturbances being marked. [D. L. E.]

5.—The case occurred in a woman of 27 and began with acute tonsillitis. About a month after the attack began, when she was first seen, she was evidently in a **severely septic condition, with signs of multiple joint involvement and with the physical signs of endocarditis**. She was given an intravenous injection of 9 cgm. of Credé's silver in 1 per cent. solution. This was repeated several times, always with good effect. Almost immediately after the silver injections were instituted, the temperature fell and continued to decline. The patient rapidly passed on to **ultimate entire recovery**. The cardiac signs completely disappeared. [D. L. E.]

July 24, 1902.

1. Further Contributions Concerning Embryotrophia. R. BONNET.
2. A Case of Perforation Peritonitis from a Rare Cause, With Unusual Course. P. HILBERT.

3. A Case of Fistula Between the Bile Passages and a Bronchus. ESCHENHAGEN.

4. The Technique of Peroral Tubage. E. KUHN.

5. The Question of the Artificial Nourishment of Infants, With Especial Consideration of Soxlet's Nutritional Sugar. S. WEISSBEIN.

2.—The patient was a man with chronic myocarditis, who had edema and ascites and was tapped for the latter. **Peritonitis followed the tapping**, and the patient died a few days later. The peritonitis, however, was not due to the tapping and probably had existed for some time before. There were **numerous diverticula along the sigmoid flexure, and one of these had perforated**. There had probably been slight leakage into the peritoneal cavity for some time before the tapping; but, after relieving the pressure through tapping, the leakage became rapid and caused a severe and rapidly fatal general infection. The post mortem was of importance, because it relieved the physician who had been in attendance from blame. [D. L. E.]

3.—The patient had presented signs of cholelithiasis, followed by an infectious cholecystitis and cholangitis; then there had followed multiple abscesses of the liver, and one of these evidently broke into the right lung and suddenly caused the patient to expectorate a large quantity of foul sputum. Soon after this the **sputum was noted to contain considerable quantities of bile**. The post mortem examination showed extensive adhesions about the liver, numerous abscesses in that organ, and the communication of one abscess with a fistula leading into a bronchus.

[D. L. E.]

5.—The sugar which Weissbein discusses is said to be directly absorbed by the intestinal tract; it is a product of starch and one of its most striking characteristics is that it has **no laxative action**. It is, therefore, **suited for the administration of large quantities of carbohydrates to children with disturbed digestion**. It is only $\frac{1}{4}$ as sweet as cane sugar. It contains a small amount of acid calcium salts, which prevent the interference with the action of rennet that occurs in heating milk; and it also contains 2 per cent. of table salt, added to overcome the poverty of cows' milk in chlorides. A number of cases are reported in which this milk was used with entire success in atrophic children with digestive disturbances. If there is any tendency to constipation, milk sugar may be added. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

July 22, 1902. (No. 29.)

1. The Significance of Tuberculous Heredity for the Origin of Ear Diseases in Children. OSTMANN.
2. The Disappearance of the Knee Jerk as a Hitherto Unrecognized Sign of Genuine Croupous Pneumonia in Childhood. M. PFAUNDLER.
3. Contribution to the Knowledge of the Tissue Metabolism in Gout. F. REACH.
4. Investigations Upon the Physiology and Pathology of the Functions of the Ureters and Kidneys With Especial Consideration of the Diluting Activity of the Kidneys After the Ingestion of Liquids. F. STRAUS.
5. Acute Hemorrhagic Encephalitis. STEGMANN.
6. Myxomata of the Ovaries. C. HENNIG.
7. The Specific Treatment of Tuberculosis. HAGER.

1.—Ostmann has studied 676 children belonging to 385 families, with reference to the association of **tubercular inheritance and deafness**. Of these children 162 were hard of hearing. Two hundred and forty-two families had 414 children, of whom 17.6% were hard of hearing. One hundred and forty-three tuberculous families had 262 children, of whom 34% were hard of hearing. More careful analysis showed that, when the tuberculous inheritance was in the direct ascendance, more children were hard of hearing than when it was in the collateral ascendance, the proportion being 60.5% to 39.5%. The forms of ear disease were various, the most common cause of deafness being catarrhal inflammation of the middle ear. It therefore seems likely that a tuberculous diathesis promotes the development of ear disease and exercises an unfavorable influence upon its course. [J. S.]

2.—Pfaundler has tabulated 55 cases of acute croupous pneumonia in children, with reference to their various symptoms and in particular the presence or absence of the patellar reflex. He finds that this tendon reflex disappears with great frequency in children between one and 10 years of age, that this disappearance bears no relation to the part of the lung diseased, but is more common in cases with severe cerebral symptoms than in vigorous well-formed children. The reflex usually disappears on the second or third day of the disease, sometimes before the physical signs are pronounced. It always returns after convalescence. This disappearance of the reflex is a more frequent sign than herpes of the lips or urinary changes. [J. S.]

3.—Reach has made some experiments upon 2 patients suffering from gout, feeding them with substances rich in nuclein, particularly the pancreas and thymus. In the first case this caused the patient to become worse on two occasions. Careful studies of the metabolism of this patient were made, and it was found that the uric acid nitrogen, instead of increasing as it should, remained low, indicating a retention in the system. The second patient had chronic lead and alcoholic intoxication. The administration of nuclein-rich foods, however, did not produce an attack

[J. S.]

4.—Straus has made some interesting studies upon the function of the ureters and kidneys. He found that anything particularly obstructing the ureter, such as a catheter introduced into it, or the presence of a stone, inhibited its activity so that the rhythmical contractions occurred at longer intervals. In cases of tumor of the kidney in which only a small portion of the renal substance persisted, he found that nevertheless it was capable of functioning. The administration of liquids showed that, if the kidney was functionally less active than normal, there was less dilution of the urine and less lowering of the freezing-point. He mentions briefly some interesting cases upon which these conclusions are based. [J. S.]

5.—Stegmann reports the following case. A man of 24 years, after a long journey suddenly developed convulsions and vomiting. There were symptoms of heart failure which were relieved by stimulants and then the patient became wildly maniacal. All attempts to feed him caused vomiting. The tendon reflexes were increased, the back of the head was tender and there was considerable congestion of the eye-grounds. He then had rise of temperature, symptoms of endocarditis and loss of all the tendon reflexes. On the sixth day of the disease paresis of the right facial and paralysis of the left abducens developed. From this point the patient gradually recovered and 4 weeks after the onset of the disease returned to his home. The paralysis of the abducens persisted and there was considerable impairment of memory. The diagnosis is doubtful, but the symptoms apparently agree best with those of acute hemorrhagic encephalitis, first described by Wernicke. [J. S.]

6.—Myxomata of the ovaries are exceedingly rare. They occur at all ages, apparently do not necessarily cause sterility or impair nutrition; they may or may not cause precocious menstruation; show no predilection for either side; may reach a considerable size and occasionally undergo degeneration. About one third of all patients on whom operations are performed die. He reports a case observed by him occurring in a woman of 61 years. The operation was successful although some of the colloid material remained in the abdominal cavity and interfered with the action of the drain. The patient recovered. [J. S.]

7.—Hager continues his analysis of the literature concerning the specific treatment of tuberculosis. He concludes that the tuberculin treatment carefully carried out is of value. With regard to Maragliano's serum his own experience proves that it has an antitoxic and curative action. He believes that his analysis is sufficient proof that the specific treatment of tuberculosis may now be employed with some hope of success. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

August 4, 1902. (39. Jahrgang, No. 31.)

1. When is the Typical Area of Dulness in the Right Iliac Fossa Absent in Appendicitis? RIEDEL.
2. Cancer Statistics from the Pathologico-Anatomical Standpoint. W. RIECHELMANN.

3. Traumatic Hysteria with Organic Disease of the Nervous System. ERNST MEYER.

4. Necrosis of Fatty Tissue. P. WULFF.

1.—Tuberculosis alone has caused more deaths in Germany than appendicitis. In at least 30% of cases the characteristic area of dulness in the right iliac fossa is absent. In chronic cases with adhesions of the appendix, localized infiltration is easily recognized. But this is not so in acute cases or in chronic cases without appendiceal adhesions. Such cases are often diagnosticated intestinal obstruction. Atypical position of the appendix also causes absence of the typical dulness. Besides, this dulness disappears as soon as air appears in the abscess. After reviewing his thorough work on this subject, which recently appeared in the *Archiv für Chirurgie* (see Philadelphia Medical Journal, September 13, 1902), Riedel trusts that operation will be performed early in the future, the surgeon relying upon the other symptoms, and not laying stress on the typical area of dulness, which is so often absent. [M. O.]

2.—Will be abstracted when concluded.

3.—Meyer reports a case of hysteria following traumatism in a man of 49, with optic neuritis, Argyll-Robertson pupils and absent knee jerks. After a fall, a tremor, speech disturbances, ataxia and spasticity appeared. Meyer concludes that an organic disease of the central nervous system exists, either locomotor ataxia or beginning progressive paralysis, to which a distinct hysterical condition has been added since the accident. [M. O.]

4. Wulff reports the case of a man of 40, an inordinate eater and drinker, operated upon for appendicitis after an illness of 10 days. Actinomyces-like masses were found in the retroperitoneal fat, behind the abscess cavity. Pure cultures of the staphylococcus albus were grown. Hemorrhage occurred in the wound, with death 12 days after operation. The autopsy showed extensive fat necrosis, with normal appendix and pancreas. Wulff emphasizes this case of generalized fat necrosis, without affection of the pancreas, which, in its symptoms, resembled perityphlitic abscess. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

July 24, 1902. (XV. Jahrgang, No. 30.)

1. Disturbances of Musical Hearing. FERDINAND ALT.
2. Several Causes of the Occurrence of Alimentary Glycosuria. WILHELM SCHLESINGER.
3. The Production of Pigment from Tyrosin.

MORIZ OPPENHEIM.

4. Distoma Hepaticum in Man. ERNST DUFFEK.

1.—Will be abstracted when concluded.

2.—Experiments show that when an excess of sugar appears in the urine after the ingestion of dextrose, it is due to rapid absorption through the thoracic duct. This is the ordinary cause of alimentary glycosuria. Disturbance of the functions of the liver is followed by glycosuria. Where an hereditary disposition to diabetes exists, diabetes may follow; and where the central nervous system or the pancreas is also affected, alimentary glycosuria may result. [M. O.]

3.—As a result of his experiments, Oppenheim states that suprarenal extract added to a solution of tyrosin causes the precipitation of pigment. Other experiments are to be reported later. [M. O.]

4.—Duffek reports a case of distoma hepaticum in a woman of 20, who died soon after reaching the hospital. The autopsy showed pulmonary edema, fatty degeneration of the myocardium, peritonitis, cholecystitis, cholangitis and hepatic abscesses, containing distoma, which were also observed in the gall-bladder, ductus choledochus, stomach and intestines. Over 50 distoma were found post mortem. Many details follow. [M. O.]

July 30, 1902. (XV. Jahrgang, No. 31.)

1. Adrenalin in Urology. A. von FRISCH.
2. Cerebral Disturbances of the Bladder, a Contribution to the Diagnosis of Tumors of the Cerebral Commissure. E. von CZYHLARZ and OTTO MARBURG.

3. Yeast in Therapeutics. HEINRICH PASCHKIS.
4. The Reaction of the Prostatic Secretion in Chronic Prostatitis. H. LOHNSTEIN.
5. Disturbances of Musical Hearing. FERDINAND ALT.
 - 1.—von Frisch uses **adrenalin**, 1-10,000, before cytoscopy, in cases of hematuria, to clear the bladder contents; 1-1,000, in suprapubic cystotomy for removing tumors without hemorrhage, in the treatment of urethral stricture, for catheterizing in prostatic hypertrophy and for complete retention with enlarged prostate. In the last-named condition a urethral injection of 2 cm. of the solution will permit spontaneous micturition. The causes of these effects are discussed. [M. O.]
 - 2.—von Czyhlarz and Marburg report a case of **tumor of the corpus callosum and caudate nuclei** on both sides, with **incontinence of urine**, in a woman of 39. They conclude that lesions of the corpus striatum may cause permanent vesical incontinence. They believe that the centers for micturition may be located in the corpus striatum. Another similar case is reported. [M. O.]
 - 3.—Paschkis reviews the history, preparations, physiological action and therapeutics of **brewers' yeast**. He has used it with success in the treatment of furunculosis, acne and severe folliculitis. The literature is fully quoted. [M. O.]
 - 4.—In spite of the statements of Pezzoli, in a recent number of this journal, Lohnstein believes his investigations, showing that the **secretion of chronic prostatitis is acid in reaction**, are correct. [M. O.]
 - 5.—**Disturbances of musical hearing**, due to disease of the middle ear or labyrinth, are rarely noted. Alt has observed 7 such cases, which he reports in full, and has collected a number from the literature. He explains the occurrence of these conditions, giving many technical details. The affection depends upon whether the other ear was little accustomed to hearing previously; whether, in sensitive musicians, tones are heard doubled; or whether middle ear disease is combined with disease of the labyrinth. Otitis media is the main cause of this condition, which is rather frequent in neurasthenic individuals. [M. O.]

ARCHIV FUER EXPERIMENTELLE PATHOLOGIE UND PHARMAKOLOGIE.

Bd. XLVIII., (Hfte. 1 and 2.)

1. Pharmacological Studies of Substances of the Filicic-Acid Group. STRAUB.
2. The Action of Tetramethyl- and Ethylammoniumiodides. A Contribution concerning the Muscarin-Like Ammonia Bases. JACOB and HAGENBERG.
3. The Relative Immunity of the Newborn Salamandra Maculata to Arsenic, and its Behavior to Solutions of Various Metallic Salts. HARNACK.
4. Concerning some Products of the Brain of the Horse. BETHE.
5. Concerning the Affinity of Hemoglobin for Carbon Dioxide and Oxygen. HUEFNER.
6. The Impassability of the Lungs for Ammonia. MAGNUS.
7. The Difference in the Poisoning Produced by Illuminating Gas and that caused by Carbonic Oxide. FERCHLAND and VAHLEN.
8. The Behavior of Carbon Monoxide Nickel in the Animal Organism. VAHLEN.
9. A Contribution concerning the Minimal Nitrogen-Metabolism in Pernicious Anemia. BERNERT and STEYSKAL.
10. Phosphorus Poisoning and the Action of Turpentine Oil on the Absorbed Phosphorus. PLAVEC.

1.—The results of Straub's study are, in brief, that he finds the poisons derived from felix are poisons for all forms of organized plasma; they are muscle-poisons, which particularly affect the musculature of worms and mollusks, in contrast to that of other animal organisms. In this way,

the action of these drugs upon tapeworms is readily to be understood. The author has studied the fate of these substances in the animal organism and has found filicic acid in the feces; but about 80 per cent. of the substance administered had disappeared. It did not appear in the urine, and had evidently been destroyed in the organism. It is not improbable that the decomposition occurred in the intestinal canal, and that only the decomposition-products were absorbed. [D. L. E.]

2.—The authors find that, as far as the effects upon animals can be considered to be the same as those upon man, the tetramethylammoniumtrioxide is very poisonous, while the tetraethylammoniumtrioxide is relatively nonpoisonous. If, therefore, the latter is found to be especially valuable for surgical work, it may be used much more freely than the methyl combination, the use of the latter being always associated with danger. The actual practical value of the ethyl combination is now the subject of study. [D. L. E.]

3.—Newborn salamandra maculata were poisoned much more readily by uranium, mercury and copper than by iron. The activity of these metals as poisons was in the exact order in which they are mentioned. That of mercuric chloride and copper sulphate was decidedly decreased by the presence of large amounts of common salt; this was not true of uranium. The activity of arsenic solutions was strikingly slight; in certain concentrations not notably greater than that of lime. [D. L. E.]

4.—Bethe finds in the brain of the horse a glucoside or amidocerebrinic acid, phernin, cerebrinphosphoric acid and what was probably stearic acid. [D. L. E.]

6.—Magnus notes that it has been shown that the normal gases expired from the lungs are free from ammonia, even when ammonia salts are given intravenously. He has experimentally confirmed this last statement, finding that the injection of ammonia itself does not cause any ammonia to pass out through the expired air; also that the inhalation of ammonia gas causes no general symptoms of ammonia poisoning. Ammonia did not appear in the expired air, even when it could be determined that there was free ammonia in the capillaries of the lungs; hence, the alveoli of the lungs seem to be impassable for ammonia. This is an interesting physiological fact, as it shows that the lungs have a selective action upon gases, just as the kidneys and intestines allow certain substances to pass and prevent the passage of others. Therapeutically, the conclusion may be drawn that one cannot state, a priori, that inhalation of all gases will have general therapeutic effects, even though it is known that certain gases, given in this way, have such effects. [D. L. E.]

7.—It has been generally taught that illuminating gas and CO have the same poisonous effects. Vahlen has studied this question, by administering to animals the same quantities of the two gases, and has found that there is unquestionably a difference between their effects. Illuminating gas has a poisonous action that is relatively much greater than the amount of CO that it contains, and it is also an active poison in animals that are only slightly affected by CO (frogs). Illuminating gas, then, is evidently a mixture of different gases, one or more of these being certainly much more poisonous than CO. [D. L. E.]

8.—The studies were carried out with nickel tetracarbonyl, using rabbits. The question arose as to whether the poisoning was not due to the CO, but it could be definitely answered in the negative. It was, also, not a simple nickel poisoning; carbon monoxide nickel, therefore, has some definite poisonous action of its own. Just how it produces death could not be positively determined. There was a reduction in temperature; but there was probably also some directly poisonous action upon the central nervous system, and there was undoubtedly a primary poisonous action due to the whole molecule and a secondary toxic action due to some decomposition-product. [D. L. E.]

9.—The authors present what is, from a physiological standpoint, a very interesting discussion of the minimal amount of nitrogenous food needed to maintain nitrogen-

equilibrium, directing especial attention to the fact that this amount is very low when sufficient quantities of carbohydrate and fat are given, and particularly when a person has been accustomed by prolonged undernourishment to very small amounts of food. They decide that the **minimal quantity of albumin necessary is only about 0.48 gm. per kilo of body-weight**, if the proper amounts of calories are present in the food; and that the necessary amount of calories can be largely reduced by gradually accustoming the individual to a low diet, more particularly by accustoming him to a food very poor in the nitrogenous element. The authors present the study of 2 cases of **pernicious anemia**, and show that these patients exhibited a **normal albumin-minimum**. The chief purpose of this investigation was to decide whether von Moraczewski is right in his statement that there is what he terms apathy and disassimilation-weakness of the organism in severe anemias; in other words, whether there is a reduction in the nitrogen-metabolism processes. The work of Bernert and Steyskal shows definitely that Moraczewski is not justified in his statement that there is such an abnormality; the figures obtained by them seem even to indicate definitely that such a weakness does not exist. There was certainly no pathological increase in the nitrogen-metabolism—a fact which at first seemed to speak against the intoxication-theory; but it does not, by any means, necessarily do so, because general marasmus, obesity and the like may be sufficient to protect the body-albumin from excessive destruction. [D. L. E.]

10.—The author discusses the question of the action of turpentine oil in phosphorus poisoning; and, after a study of the literature and of his own results, decides that **rectified turpentine oil has no antidotal effect upon absorbed phosphorus**, or that, if there is any effect, it is too slight to be of therapeutic value. The phosphorus which is ingested and absorbed does not appear as free phosphorus in the urine, and the turpentine oil excreted in the urine does not interfere with the luminousness of the phosphorus. Where and how this action upon phosphorus is lost in the body, has not been determined. Acute enteritis—particularly duodenitis—appears after phosphorus poisoning, and may become so severe as to produce hemorrhagic infiltration, and even ulceration. The author believes that neither pure nor oxidized turpentine oil has any sufficient action upon absorbed phosphorus to give it a therapeutic value in the treatment of the general poisonous effects of the phosphorus. [D. L. E.]

JAHRBUCH FUER KINDERHEILKUNDE.

June, 1902. (Volume 55, No. 6.)

27. Tumors of the Fourth Ventricle.
HERMANN BRUENING.
28. Varicose Dilatation of the Brain Sinuses in a Child with Congenital Defect of the Interventricular Septum.
G. GEISLER.
29. The Composition and Nutritive Value of the Backhaus Milk. C. HARTUNG.
30. Scarletinal Arthritis. FELIX von SZONTAGH.
31. A Case of Congenital Dilatation of the Colon in a Child. MAX BJOERKSTEN.

27.—Brüning reports in detail the case-history and post mortem findings in a boy of 3, with **glioma of the ependyma of the fourth ventricle**. Symptoms followed a fall, the child striking his head, death resulting 3 months afterward. Lumbar puncture was always negative. Among the symptoms observed were strabismus, nystagmus, spastic contractures and anomalies of the pulse. Microscopically the glioma contained peculiar cavities. Brüning has collected 33 cases of tumors of the fourth ventricle and reviews their symptomatology. [M. O.]

28.—Geissler reports the rare case of an infant of 15 months, very blue, with dilated veins and a systolic murmur. Death occurred suddenly, with some cough. Autopsy revealed a **congenital defect in the anterior, upper portion**

of the **interventricular septum**, great hypertrophy of the right heart and slight of the left, chronic endocarditis, dilatation and sclerosis of the pulmonary arteries, **bronchopneumonia** in both lungs, tracheitis, bronchitis, **great dilatation** of the external and common jugular veins, of the veins of the skull and forehead, of the **brain sinuses**, with hyperemic induration of the liver, spleen and kidneys. The straight sinus, with the large vein of Galen, the transverse sinus and the superior longitudinal sinus were dilated and covered with varicosities. The head looked distinctly hydrocephalic. The cause of death was bronchopneumonia, while the cause of the dilated cerebral sinuses was the increased bloodpressure following sudden edema with the extravasation of blood in the thorax. [M. O.]

29.—In a long article in which he gives analyses of the Backhaus, Biedert and other milk mixtures, Hartung points out the resemblance between these formulas. The **Backhaus milk**, while somewhat like human milk, resembles mother's milk hardly more than the Biedert preparation. Yet good results have followed the use of each. [M. O.]

30.—von Szontagh reports 15 case-histories of **scarlatinal arthritis in children**. This usually appears in the fourth week of scarlet fever or later. Nephritis also existed in 13 cases. The presence of the arthritis seems to prevent uremia. The treatment is purely surgical. [M. O.]

31.—Björkstén fully describes a rare case of **congenital dilatation of the colon** in a girl, 3½ years old. She died of diarrhea 5 months after resection of the colon. The autopsy showed immense dilatation of the colon, with hypertrophic walls. There was neither intestinal obstruction nor peritonitis. Björkstén advises early surgical interference as the only means of curing the condition. [M. O.]

ARCHIV FUER KINDERHEILKUNDE.

1902. (Volume 34, Nos. 1 and 2.)

1. The Adele Brody Hospital for Children, Budapest.
JULIUS GROSZ.
2. Alcoholism in Childhood. JULIUS GROSZ.
3. The Relation of Lichen Scrophulosorum to Cutaneous Tuberculides. CORNELIUS BECK and
JULIUS GROSZ.
4. A Case of Functional Bulbar Paralysis.
JULIUS GROSZ.
5. The Treatment of Scarlet Fever. JULIUS GROSZ.
6. The General Clinical Significance of Estimating the Freezing Point of Blood and Urine in the Question of Renal Insufficiency. H. ROEDER.
7. The Teaching of Pediatrics in the German Universities.
KRABLER.

1.—Grósz described the history, installation, buildings, organization, cost, etc., of the **Adèle Brody Hospital for Children, Budapest**, in detail, with many diagrams, denoting the work done since its opening in 1897. [M. O.]

2.—Grósz reports several cases of **acute and chronic alcoholism in children**. Two were acute, and in 4 chronic cases there was marked cirrhosis of the liver. Epileptiform convulsions, chorea, neurasthenia, etc., were often caused by chronic alcoholism. After reviewing the literature, Grósz adds that alcohol should only be given to children in rapid loss of strength and sudden heart weakness, and then only in doses large enough to overcome symptoms. [M. O.]

3.—Beck and Grósz report the case-history of a girl of 5, with **lichen scrophulosorum**. Microscopically giant cells were found. The lesion is benign, never suppurates and therefore resembles **cutaneous tuberculides** as described by Darier, being unlike miliary tuberculosis of the skin. Many details are given. [M. O.]

4.—Grósz describes an interesting case of **functional bulbar paralysis** in a little girl, with recovery upon bromides and iron. She presented all the signs of acute bulbar paralysis, which developed in one day. He believes that the

cause of this condition was hysteria. The literature of the subject is fully cited. [M. O.]

5.—Out of 168 cases of *scarlatina*, 26, 15%, died. As 7 of them entered the hospital moribund, there were 19 deaths out of 161 cases, 11%. Isolation and hygiene were strictly carried out, and the children were kept in bed 3 weeks, warm baths being given every other day during desquamation. Quinine and antipyrine were given for hyperpyrexia, with moist applications. Angina was marked in 93 cases, yet diphtheria bacilli were found only in 4. Fifty-three of them were cases with severe necrotic angina. An alkaline spray was used as long as there was any secretion. Scarlatinal nephritis alone existed in 16 cases. This occurred even upon milk diet. Digitalis, potassium acetate and diuretin were used, with warm baths. In some cases ergotin or tincture of the chloride of iron was given. [M. O.]

6.—Roeder explains osmotic pressure and states that osmosis depends upon the molecular concentration of the fluid. The manner of estimating the freezing-point of the urine and blood follows in detail. Renal insufficiency is shown by the retention of the products of assimilation in the organism. Constant molecular concentration of the blood shows renal sufficiency. This estimation of the freezing-point of the blood tells the surgeon the height of osmotic tension, whether operation is to be performed or not. A lowered freezing-point of the blood is dependent upon the diet only when renal insufficiency exists. [M. O.]

7.—Krabler gives a table of the lectures given and clinical work done throughout Germany in pediatrics. Of the 20 German universities, Erlangen, Jena, Marburg and Tübingen give no courses on the diseases of children at all. Bonn, Giessen, Göttingen, Halle, Kiel and Rostock have lectures on the subject, but without any clinic or polyclinic for clinical work. Only 8 universities have a special building for pediatrics, Berlin, Breslau, Freiburg, Greifswald, Heidelberg, Leipsic, Munich and Strassburg. [M. O.]

ARCHIVES DE MEDECINE DES ENFANTS.

June, 1902. (Volume 5, No. 6.)

1. Lithemic Eczema in Childhood. EMILE LEULLER.
2. The Danger of Employing Bevelled Intubation Tubes. M. DEGUY and B. WEILL.
3. The Descent of a Laryngeal Tube into the Trachea. PEREZ AVENDANO.

1.—Eczema in lithemic children is often vesicular, breaking down in 24 hours, followed by scaling. It is noted in children with a lithemic family-history, or a history of obesity, migraine, neuroses, asthma, dermatoses, gout, diabetes, etc. Constipation is frequently present. Leuller concludes that redness and vesiculation occur, often with much serum, crusts later, and desquamation. It is a "bradytroph," characterized by incompletely elaborate products in the excreta, especially uric acid. It is one of the early signs of lithemia and should not be confused with the eczema due to improper feeding. It occurs in older children also. The diagnosis depends upon heredity and the presence of other uricemic symptoms. It is generally dry, itching, appears in successive crops, is rebellious to treatment and associated with other lithemic symptoms. Urine analysis confirms the diagnosis. Its pathogenesis is explained by the acid or alloxuric derivatives upon the skin. The treatment of this form of eczema consists in a vegetable diet with little nitrogen, rigorous hygiene, fresh air, massage, exercise, etc., alkalies, mineral waters and baths. Locally a mild salve, lotion or dusting powder is used. [M. O.]

2.—Deguy and Weill have abandoned the use of bevelled intubation tubes because of the difficulty in introducing them and in extracting them by the Bayeux enucleation method. They report the case of a child of 4½ years, in whom a bevelled tube, of the Avendano type, slipped down into the

trachea. Tracheotomy was necessary to remove the tube and the child recovered. Marfan does not recommend either the bevelled tubes or those with handles. [M. O.]

3.—Avendano states that a laryngeal tube may slip into the trachea either because the tube employed is too small or because some force is exerted upon it in attempting to remove it. On account of the bevelled edge of the tube used, which was also too small for the child in the case just reported, pressure exerted posteriorly caused the tube to slip into the trachea. He recommends the use of intubation tubes with bevelled edges and handles. [M. O.]

REVUE MENSUELLE DES MALADIES DE L'ENFANCE.

May, 1902. (T. 20, No. 5.)

1. Subglottic Laryngitis. DEGUY.
2. Disorders in the Nutritive Functions in Infantile Myxedema. HAUSHAULTER and GUERIN.
3. Tuberculous Cirrhosis in Children. BAUDOUIN.
4. A Case of Tic of Salaam. SIMON.

1.—Deguy reports the case of a girl, aged 4½ years, who was suffering from diphtheria. She was treated with serum and was intubated several times. Her urine contained albumin. After intubation was found to be unsatisfactory, tracheotomy was done. After the child recovered from its attack of diphtheria, she left the hospital with subglottic stenosis which, on laryngoscopic examination, appeared as though a portion of the larynx below the true vocal cords was completely closed. The mucous membrane was swollen and infiltrated, but did not present erosions or granulations. At the autopsy, the presence of tuberculous peritonitis was demonstrated. After the larynx was removed, it was found that a catheter could be passed through the stenosed portion. The stenosis began about 3 mm. below the true vocal cords and extended to the upper portion of the tracheotomy wound. The stricture was composed of strong fibrous tissue. The death of the child by asphyxia was probably due to a paralysis of the muscles of respiration and the muscles of the bronchi, on account of which the child was unable to expectorate the mucus from the bronchial tree. Landouzy has said that all patients who undergo tracheotomy die of tuberculosis. They are candidates for tuberculosis the day after the operation. The case reported gives evidence of the truth of this statement. The author believes that in the neighborhood of the larynx there is a reflex zone of considerable importance. This zone can be demonstrated by difficult intubation, digital examination of the larynx and in the course of retropharyngeal abscess. [J. M. S.]

2.—Hausaulter and Guérin report 2 cases of infantile myxedema. The first patient was a man, 25 years of age. The second patient was a child, 6 years old. As a result of the examination of the urine from the first patient, the authors show: (1) That the co-efficient of the utilization of nitrogen is distinctly below the ordinary mean. (2) That the excretion of urea and uric acid presents a notable diminution. (3) That the elimination of chlorine in relation to the total nitrogen is considerably increased. (4) That the relation of phosphoric acid to urea indicates relatively intense phosphaturia. (5) That the excretion of magnesium is relatively low compared with that of calcium, which is present in large proportion. These facts show the striking characteristics of the disorders produced in the organic interchanges by the suppression of the stimulant and regulating influence that the thyroid secretion exercises upon nutrition. In this patient diuresis appeared normal, but there was a slight and persistent albuminuria which the authors believe was the result of auto-intoxication from a diminution of the toxicolytic action of the thyroid tissue. In the second case the same results were obtained from examination of the urine as in the first case, except that there was no albuminuria. [J. M. S.]

3.—Baudouin reports the case of a boy, aged 13 years, who suffered from ascites of considerable volume and intense dyspnea. The heart was a little hypertrophied, the liver markedly so, the urine contained albumin; the spleen was larger than normal. A laparotomy was performed and 9 liters of straw-colored serum were removed from the abdominal cavity. The peritoneum showed no traces of tuberculosis. After a second laparotomy the fluid returned, and a third laparotomy was then done in

order to bring about an anastomosis between the caval circulation and the portal circulation. This operation resulted in a functional anastomosis in 3 weeks. A month later the child had an attack of fever, cough and dyspnea, the ascites reappeared, and he died. At the autopsy there was tuberculosis of the right lung, tuberculosis of the pericardium, fatty and hyperthrophic cirrhosis of the liver, enlargement and congestion of the spleen, tuberculous peritonitis and congestion of the kidneys. Histological examination of the liver showed some scattered tuberculous nodules. The liver was crossed by bands of connective tissue which were particularly well marked beneath the capsule. The liver cells were necrosed, many presented fatty degeneration, and the liver was infiltrated with pigment. The author reports a second case in a child, aged 11 years, who was suffering from Pott's disease. When first seen his abdomen was perfectly normal. Three months later the liver was found to be slightly hypertrophied, the spleen was enlarged, but there was no ascites. A month after this, ascites appeared and increased progressively. Pericardial friction occurred and, later, complete symphysis of the pericardium was established. Then mitral insufficiency was detected. Still later a left femoral phlebitis occurred. The author believes that these 2 cases show that cirrhosis of the liver may be due to tuberculosis either on account of the action of the tubercle bacillus or its toxin. The purely portal origin of the ascites in these 2 cases is undoubted, and the histological examination proves the tuberculous nature of the cirrhotic process. [J. M. S.]

4.—Simon reports the case of a child, aged 15 months, who presented an oscillatory movement of the head from before backward with slight lateral inclination. Nystagmus, blepharospasm and convergent strabismus were also present. The author considers the case to be one of tic of Salaam. [J. M. S.]

ARCHIVES OF PEDIATRICS.

June, 1902. (19th. Year, No. 6.)

1. The Etiology and Prophylaxis of Summer Diarrhea in Children. HENRY HEIMAN.
2. The Treatment of Summer Diarrhea. CHARLES GILMORE KERLEY.
3. A Plea for the Use of O'Dwyer's Intubation Instruments. M. NICOLL, JR.
4. A Case of Diabetes Mellitus in a Child, Four Years Old. HEINRICH STERN.

1.—Heiman divides the summer diarrheas of children into: (1) An infectious variety and (2) a noninfectious variety. The infectious variety may be inflammatory or non-inflammatory. By far the most frequent exciting cause of these diarrheas is found in the feeding. If the child is breast-fed, dietary indiscretions of the mother or uncleanness of her nipples and breast may explain the occurrence of the disease. In bottle-fed children and children on a mixed diet, dietary indiscretions are likely to be numerous and to result readily in diarrhea. In the prophylaxis of the condition, pure milk is a necessity. The education of the mother concerning the proper feeding of her children is also much to be desired. [J. M. S.]

2.—In the treatment of summer diarrhea, Kerley advises the exhibition of castor oil or calomel, as soon as the patient is seen; the diet should be reduced to a carbohydrate basis; and, after the characteristic action of the primary cathartic has been noted, he uses bismuth subnitrate in large doses. He believes that irrigation of the colon, once or twice in the 24 hours, with normal salt solution, is of much service. [J. M. S.]

3.—Nicoll contributes a paper in which he advocates the use of O'Dwyer's intubation instruments in cases of laryngeal obstruction accompanying diphtheria. [J. M. S.]

4.—Stern reports a case of diabetes mellitus in a child, aged 4 years. The child was passing urine containing 2.08% of glucose. She was treated with a combination of antipyrine and codeine and was put on a rigid antidiabetic diet. Sodium pyrophosphate was also used. Rapid improvement followed this method of treatment. [J. M. S.]

AMERICAN JOURNAL OF MEDICAL SCIENCES.

May, 1902.

1. Localization of the Mental Faculties in the Left Prefrontal Lobe. CHARLES PHELPS.
2. The Unilateral Occurrence of Kernig's Sign as a Symptom of Focal Brain Disease. JOSEPH SAILER.
3. One Hundred Cases, All Nonmeningitic, Examined for Kernig's Sign. WILLIAM SHIELDS, Jr.
4. Three Cases of Meningitis in Which Kernig's Sign Was Persistently Absent. F. S. CLARK.
5. The Treatment of Thrombosis of the Lateral Sinus Following Middle Ear Suppuration. EDWARD DENCH.
6. Hemihypertonia Postapoplectica. D. J. MCCARTHY.
7. The Etiology of Infantile Paralysis. ALFRED GOSSAGE.
8. Report of a Case of Alcoholic Multiple Neuritis. L. W. ATLES.
9. Hepatic Lesions in Infancy. MARTHA WOLLSTEIN.
10. The Sacrococcygeal Dimples, Sinuses and Cysts. FRANCIS MARKOE and WINFIELD SCHLEY.
11. A Case of Transitory Cystinuria Associated With Diminuria. MILTON LEWIS and CHARLES SIMON.
12. The Causes and Varieties of Chronic Interstitial Pancreatitis. EUGENE OPIE.
13. A New Cabinet for Microscopic Slides. MARY KIRKBRIDE.
14. Further Studies of Granular Degeneration of the Erythrocyte. ALFRED STENGEL, C. Y. WHITE and WILLIAM PEPPER.
15. The Lateral Chain Theory of Ehrlich as Explanatory of Toxins, Antitoxins, Bacteriolysins and Hemolysins. E. P. GAY.

1.—Phelps has collected a number of cases in which the frontal lobes have been injured. In 8 cases of left hemiatrophy the patients showed marked impairment of mental function. In 2 cases of right hemiatrophy the intelligence was practically normal, although one of the patients was an epileptic. He has also collected 110 cases of pistol injuries of the frontal lobes, 26 limited to the right and 24 to the left frontal lobes. None of the 26 presented any symptoms of mental or emotional disturbance aside from those characteristic of general contusion. In 13 of the 24 cases in which the ball injured the left lobe manifestations of mental derangement were distinctly evident. Phelps has also collected 137 cases of limited lesion of the frontal lobe, of which 98 were suitable for analysis. Fifty-one involved the left lobe, 34 the right and 13 both lobes. In all cases the situation of the lesion was verified by autopsy. Of the 51 cases limited to the left lobe 46 presented symptoms of mental disorder and 5 did not. Eleven cases in which both lobes were involved showed symptoms similar to those of disease of the lobe; of the 34 in which the right frontal lobe was involved 24 showed no form of mental impairment: 10 showed distinct mental symptoms. He concludes with an analysis of these statistics, some discussion of the subject and mentions an experiment performed by Bianchi upon a female monkey, in which after removal of the right frontal lobe few changes were observed; after the removal of the left frontal lobe the animal became stupid and apathetic. He believes that his studies justify 3 propositions: (1) The more absolutely the lesion is limited to the left, the more positive are the symptoms. (2) The integrity of the mental faculties remains unimpaired in right frontal lesion, though it involves the destruction of the entire lobe, or even extends to the entire hemisphere. (3) The exceptional instances in which seemingly opposite conditions exist are always reconcilable, on more careful examination, with the assertion of an exclusive control of the mental faculties residing in the prefrontal region of the left side. [J. S.]

2.—Sailer reports 2 cases of focal brain disease in which Kernig's sign was present only upon the opposite side. The first, a man, 20 years of age, was brought to the hospital partially delirious and complaining of severe headache. He had high fever, the head was slightly retracted; the left arm was flexed and rigid; the reflexes were not exaggerated, but Kernig's sign was readily elicited in the left leg. There was gallop rhythm and a slight accentuation of the second sound. The patient rapidly became worse, conjugal deviation occurred; Babinski's sign appeared in the left leg and a systolic murmur developed over the heart. Finally the patient developed Cheyne-Stokes respiration

and died. Cultures made from the blood and spinal fluid, obtained by puncture, showed the presence of the staphylococcus pyogenes aureus, and the same organism was recovered from the blood and brain after death. A metastatic abscess was found in the middle of the ascending parietal convolution extending inward to the internal capsule. Section through this showed an accumulation of round cells, degenerated nerve tissue and great masses of cocci. The second patient, a man of 37, who had used alcohol to excess, awoke one morning with a feeling of malaise and pain in the back. Speech was thick; there was spasticity of the muscles of the left arm; the grip was weak, and whenever attempts were made to move the arm the patient moved the right arm involuntarily in the same manner. The left leg was also spastic; the knee jerk was exaggerated; there was persistent patella clonus and a rapidly exhausted Babinski's sign. Kernig's sign was very typical. During observation the angle of extension gradually decreased and then slowly increased until the sign disappeared. The patient complained of diplopia, and paresis of the left external rectus could be determined. He gradually improved and a probable diagnosis was made of nonsuppurative focal encephalitis located in the upper portion of the medulla on the right side. Sailer suggests that Kernig's sign is probably not due to the lesion of the meninges but of the underlying brain substance. He thinks it indicates a partial irritative disturbance of the pyramidal tract and when it occurs unilaterally it may be a form of focal encephalitis. [J. S.]

3.—Shields, in connection with the preceding article, has made an examination of 100 cases of patients suffering from diseases other than typhoid fever, for the presence of Kernig's sign. He found it present in 2 cases of right-sided hemiplegia, and one of uremia. In one of the cases of typhoid fever and in the 2 cases of hemiplegia the sign was only present on one side. Both of the typhoid patients showed marked cerebral symptoms. [J. S.]

4.—Clark reports 3 cases of meningitis in which Kernig's sign could not be elicited at any period in the course of the disease. The first case was evidently an acute infectious process, although the nature of the infecting agent was not determined. The other two were cases of tuberculous meningitis. Clark believes that they confirm the statement that Kernig's sign rarely occurs in this condition. [J. S.]

5.—Dench discusses the history of operations upon the cerebral sinuses for the cure of infectious thrombosis proceeding from the middle ear. He has operated upon 22 cases, one of septic pneumonia and another of acute nephritis. In 4 of these 22 cases he located the internal jugular vein and in all 4 of these recovery ensued. He gives the following details of the operation. In performing a mastoid operation he removes all carious bone, following the soft bone in every direction until the infected area is completely eradicated. If the sinus is exposed and appears in any way diseased, he invariably incises the wall for exploratory purposes and obtaining free flow of blood in both directions. If thrombosis is present, it is always removed thoroughly with the curette unless it is completely organized. If, after a period of from 1 to 3 days, the temperature shows no indication of systemic infection, incision of the internal jugular is always performed. This should be done by an incision exposing the vein from the top of the mastoid to the base of the neck, the dissection proceeding from below upward. The sinus is also removed, leaving only a small portion of the internal jugular vein, with the exception of the dilated portion in the jugular fossæ. He reports the case of a man, 31 years of age, in whom the temperature reached 104.8° on the fourth day after the operation. The jugular vein was exposed, resected, and the patient made a perfect recovery. The second patient, a boy of 8, also had a mastoid operation with thrombosis of the sinus which was curetted. On the twelfth day there was slight elevation of temperature which was found to be due to a slight retention of pus in the wound in the neck. This was washed out and the patient recovered. [J. S.]

6.—McCarthy reports the case of a woman, 47 years of age, who in 1898 had an attack of dizziness which lasted 20 minutes; there was also difficulty in speaking and paresis of the left arm. A year later she had a similar attack, in which she fell to the floor but did not lose consciousness. A year after this she began to develop spasm in the left

foot. This was tonic and consisted of an intense plantar flexion of the toes. The calf muscles were hard and rigid, and the fingers were in a state of tonic spasm, the position somewhat resembling that of tetany. There was no weakness in the left side; the reflexes were only slightly altered; there was increased muscular irritation. The case is interesting, because it is only the second of this nature reported in America, and because the patient at no time lost consciousness. [J. S.]

7.—Gossage, after reporting a few interesting cases of infantile paralysis including 2 occurring in a brother and sister with an interval of 5 days between the onsets of the disease, discusses the various theories that have been suggested regarding the nature of the disease and assumes from them that possibly they are different diseases producing somewhat similar symptoms. Thus, there is a class in which the paralysis comes on suddenly without previous ill health; another in which it is preceded by general symptoms, such as fever, vomiting, pain in the back, etc.; a third, in which the disease is distinctly an epidemic, and a fourth, in which it occurs in adults. The 3 latter classes are possibly one and the same disease. He concludes, however, from the evidence at hand, that probably there is a specific micro-organism producing it. [J. S.]

8.—A man, 44 years of age, was suddenly taken sick and went to bed. He had a slight elevation of temperature; there was weakness in the legs and arms and some atrophy in the muscles of the latter. He was somewhat jocular and silly, recognized persons but did not apparently understand his environments. He slept poorly; his gait was tabetic; speech was normal. A history was elicited that for 8 years he had been drinking severely, although rarely to the point of intoxication and that tingling had preceded the attack for some time. A diagnosis of multiple neuritis due to alcohol was therefore given and the prognosis made more favorable. The extreme irritation was allayed, although the delusions of persecution persisted and he was finally sent to an asylum. Here he rapidly improved and soon regained his normal health. [J. S.]

9.—Wollstein has studied the liver in young children in 370 consecutive autopsies. The lesions found were fatty infiltration in 214 cases, including 45 cases in which there was tuberculosis of the liver; 22 cases of tuberculosis without fatty change; 2 cases of cirrhosis; 89 of profuse cyanotic congestion and only 49 in which the liver was normal. Fatty liver occurred more frequently in the well-nourished than in the poorly nourished, although some emaciated children presented this change. There were no cases of amyloid disease. [J. S.]

10.—Markoe and Schley have noted a well-marked sacrococcygeal dimple in 100 children out of 300 consecutive births observed in the city. They give a very careful analysis of the literature of this subject and discuss the various changes that can occur from this simple fovea coccygeal to distinct marked tumors sometimes situated beneath the skin and containing strands of hair. Often these tumors undergo secondary inflammatory change. The treatment consists in complete excision. The authors intend to discuss the embryology of this subject in another paper. [J. S.]

11.—Lewis and Simon report the case of a woman, 46 years of age, who was taken sick with signs of oppression about the chest, headache, loss of appetite, painful and difficult micturition. The temperature was high, pulse rapid, and there were some physical signs of pneumonia. Later the patient had bradycardia. Examination of the urine showed the presence of cystine crystals. After 5 days these disappeared and could not again be demonstrated. The presence of diamin could only be determined when large quantities of urine were employed. Tyrosin or putresin could not be found. The authors mention some cases which have been reported since Simon's last paper on the subject, and one case that was then overlooked. [J. S.]

12.—Opie has collected 29 cases of chronic interstitial pancreatitis from the records of the Johns Hopkins Hospital. The disease was most frequent after 40 years of age, only 5 cases occurring before this period. In 10 cases there was partial or complete obstruction of the pancreatic ducts. Of these 29 cases 21 belonged to the intralobular order and 8 to the intra-acinar type. The commonest cause of the obstruction is calculus. In 2 cases the calculi were multiple and caused an advanced condition. A third case showed

the relation between biliary calculi and chronic pancreatitis. The patient, a man of 63, had been unsuccessfully operated upon for gall-stones. He subsequently died of streptococcic infection. He had cirrhosis of the liver, chronic intralobular pancreatitis, and the latter condition was evidently due to the compression of the pancreatic duct by a gall-stone lodged in the common biliary duct. In 2 other cases gall-stones and chronic pancreatitis co-existed. In 5 cases malignant growth of the pancreas existed, compressing the pancreatic duct. Among the other interesting cases was one of acute pancreatitis in a woman, 38 years of age. The patient had Bright's disease and died in uremic coma. Microscopical examination of the pancreas showed, in addition, an acute interstitial process. In 4 cases persistent vomiting was noted as a symptom of advanced chronic pancreatitis. Two were in young women; one in a man of 49; one in a patient suffering from chronic pancreatitis and one in a person who suffered from disease of the duodenum. The autopsies on these cases showed in the first, dense fibrous intralobular tissue in the pancreas. This patient was also pregnant and abortion had been performed for the sake of relieving the persistent vomiting. The second patient had a carcinoma of the uterus with metastasis. The third patient showed chronic gastritis in a person who had formerly been an alcoholic, but the ducts of the pancreas were compressed. The fourth patient, a woman of 51, had had a hysterectomy performed for carcinoma of the uterus some years before, and recurrent carcinoma of the retroperitoneal lymphglands was found in addition to intralobular pancreatitis. Other cases were associated with carcinoma of the liver, chronic heart disease and gangrene of the lung. Two cases were associated with tuberculosis, one case with alcoholism, 2 with atrophic cirrhosis of the liver, one with hypertrophic cirrhosis and one with cirrhosis and tuberculous peritonitis. In one case the cause was obscure; the islands of Langerhans were not involved and there was no diabetes. In no case was syphilis found associated. Opie, in conclusion, states that chronic interstitial pancreatitis is more frequent in males than in females. The commonest cause is obstruction of the duct of Wirsung and, if infection ascends the duct and becomes chronic, there may be long persistent vomiting during life. [J. S.]

13.—Kirkbride describes a most ingenious cabinet arranged for holding large numbers of microscopic slides in the most accessible manner, for ready reference or examination. The slides are arranged so that practically they form their own card index. This index is further simplified by having guide cards which project slightly above the level of the slides, white being used for the name of the organ involved; blue for the various pathological changes pertaining to each organ. When one slide presents more than one alteration, a buff-colored card is used in one of the places in which it would otherwise belong. This cabinet has been used satisfactorily for a long time in the laboratories of the Polyclinic hospital. [J. S.]

14.—Stengel, White and Pepper conclude their valuable investigation upon the granular degeneration of the erythrocyte. Their general conclusions are that karyolytic and karyorhetic changes may be observed in nucleated red cells, although granules are not present. None of the granular cells shows the remains of a former nucleus and the early appearance of the granules indicates rather a destructive change in the red cells of the peripheral blood than any alteration in the red cells in the process of formation in the blood-making organs. Granules found in the bone marrow are the same as those found in the blood. As they are early found in cases of leukemia in which nucleated cells are present, there is reason to believe that they are not the result of nuclear disintegration. This paper contains the results of careful study of the blood in a considerable variety of diseases for the purpose of determining the presence or absence of the granules. [J. S.]

15.—Gay contributes a brief but comprehensive article upon the lateral chain theory of Ehrlich, which includes a discussion of bacteriolysins, hemolysins and cytotoxins. It is not adapted for an abstract. [J. S.]

LA PRESSE MEDICALE.

May 28, 1902. (No. 43.)

1. The One Hundredth Anniversary of the "Internat." P. DESFOSSES.
2. Segmentary Edema. DEBOVE.
3. Subcutaneous Injections of Air in the Treatment of Neuralgia. R. ROMME.
 - 1.—Desfosses describes the exercises commemorating the hundredth anniversary of the establishment of the "internat" in the Paris hospitals. Pictures of the medalion made for the occasion and of the monument unveiled in memory of those physicians who died during their service as "internes" are given. A résumé of the speeches at the banquet, the operative performance, etc. follow. [M.O.]
 - 2.—Debove describes another case of segmentary edema, affecting the entire left leg, in a woman of 25. This first appeared at the age of 13. There is absolutely no pachyderma, thus separating the condition from elephantiasis. The edema seems localized to the different segments of the lower extremity, each one separated from the others. Debove objects to the name trophedema given to this condition by Meige. It does not disable the patient at all; and thyroid extract has absolutely no effect upon it. As few cases have been observed as yet, and no autopsy has been made, its etiology remains in doubt. [M. O.]
 - 3.—Romme reviews Cordier's treatment of neuralgia by the subcutaneous injection of air. An ordinary hypodermic syringe is used, causing no pain at all. After the injection, the skin over it is well massaged, to lengthen the nerve filaments affected. Cordier has treated 25 cases of sciatica and several cases of lumbago, herpes zoster, etc., by this method with success. In ascending traumatic neuritis, however, the treatment failed. [M. O.]

May 31, 1902. (No. 44.)

1. Strassburg University. F. JEHLÉ.
2. Angioma Due to Friedländer Bacilli. C. NICOLLE and A. HEBERT.
3. Hygiene in the Treatment of Constipation. E. FROUSSARD.
4. Radiating Heat in Therapeutics. F. ALLARD.
 - 1.—Jehle gives a full description of the buildings, equipment, etc., of the Medical School of Strassburg University. [M. O.]
 - 2.—Nicolle and Hebert report another case of angina, in a girl of 12, in which pneumobacilli of Friedländer were found. False membranes were noted and the angina persisted, yet was benign. The condition closely resembled diphtheria, but without constitutional symptoms. This micro-organism has been observed in 24 cases out of 3670 cases examined. [M. O.]
 - 3.—Froussard discusses hygiene in the prophylaxis of habitual constipation. To prevent constipation in infancy the quantity and quality of the milk ingested, the time of feeding, and fresh air should all receive attention. In children the diet, the amount of liquid, sleep, exercise and fresh air must be regulated. In the adult, diet, regular meals, regular defecation, exercise, hydrotherapy and absence of tight corsets are advised. For constipation in old people the same hygienic regulations will prove useful. [M. O.]
 - 4.—Radiating heat may be applied by the incandescent lamp or a hot air apparatus. Its greatest success has been in acute or chronic gout, muscular or articular rheumatism and rheumatoid arthritis. It has been of service in gonorrheal and tuberculous arthritis and chronic synovitis. In sprains, dislocations and fractures it removes the pain immediately. It has done good in phlebitis and chronic edema. Locally it also hastens the cicatrization of atonic ulcers. A general hot air bath is indicated in obesity, anemia, general debility and lithemia. [M. O.]

June 4, 1902. (No. 45.)

1. Strangulated Inguinal Hernia in Children. A. BROCA.
2. The Fixation of a Permanent Urethral Sound. J. ESCAT.
 - 1.—Broca, who has operated upon 3 cases of strangulated inguinal hernia in infants in the past 2 months, reports several cases, the last being in a boy of 11 months, whose hernia appeared at the age of 3 months. It was easily reduced under chloroform. It recurred, however, with a renewal of symptoms. The operation for the radical cure was performed successfully, in spite of the age of the infant. The differential diagnosis from hydrocele, inguinal abscess, etc., follows. One of his cases was funicular.

Such a hernia is not reduced until the neck of the sac has been cut. As a rule radical cure should not be done upon children under 18 months or 2 years. Yet, when strangulation recurs, it should be performed earlier. The operation is in itself benign. Pneumonia, diarrhea and death from hospitalization are to be feared in infants after operation. [M. O.]

2.—Escat describes in detail, with several diagrams, how to fix a permanent sound in the male and female urethrae. His method of attaching the sound externally, to keep it in position, is fully explained. [M. O.]

June 7, 1902. (No. 46.)

1. Bullet Wound of the Heart. L. BERARD and C. VIANNAY.
2. Electric Shock. LOUIS TOLLEMER.
3. Interstitial Injections of Vaseline in the Treatment of Ozena. BRINDEL.

1.—Bérard and Viannay report the case of a man of 28, who shot himself in the chest, the bullet passing through both ventricles and out again. He died 3 days afterward, with a slight hemothorax and hardly any hemopericardium. Operation was undertaken 10 hours after he shot himself, but as no hemorrhage was found in the pericardium, the wound was closed. Collapse followed 2 days later, with death. The autopsy showed the bullet holes in the walls of both ventricles and the interventricular septum. The bullet was not found. This case is remarkable on account of the absence of symptoms of rupture of the heart. Death was probably due to pleural infection. A number of diagrams illustrate the condition found. [M. O.]

2.—Tollemer reviews an article by Trotter in a recent number of the London *Lancet* upon death from electric shock. Thus 2000 volts may kill one man, but only slightly burn another. When an accident from electricity occurs, the patient should be treated just as is one with syncope during chloroformization. When death occurs, it is generally from heart paralysis. Now that electricity is in use for locomotion, accidents are numerous. [M. O.]

3.—Brindel has used vaseline, fusible at 60° C., giving interstitial injections in 10 cases of ozena, into the lower turbinate bones. This hypertrophies at once. He injects but 3 or 4 cc. of vaseline at a time. The ozena disappears immediately. The atrophic rhinitis becomes apparently hypertrophic with this treatment. [M. O.]

BOLNITCHNAIA GAZETA BOTKINA.

April 24, 1902. (Vol. XIII, No. 17.)

1. On the Time of the Appearance of the Immune Body (la substance sensibilisatrice, Immune Körper) in the Blood of Typhoid Patients. K. N. GEORGIEVSKY.
2. A Project of the Fundamental Principles Underlying Hospital Management. N. A. IVANOFF, A. I. LATANKHINE and A. N. ROUBEL.

1.—Georgievsky determined by the method of Bordet and Gengon the time of the appearance of the immune body in the blood of persons suffering from typhoid fever. In none of the 15 cases examined did the immune body make its appearance during the first two-thirds of the febrile stage. In only a few (4 out of 7) was that substance detected during the last days of fever. With the disappearance of the fever, the immune body was present in all cases, but also here the time of its appearance varied. In 2 cases it appeared on the second day of normal temperature; in the majority, however, between the seventh and tenth days. No relation could be established between the appearance of the immune body and the agglutinating properties of the blood. The author's conclusions are: (1) The immune body appears in the blood of typhoid patients in amounts accessible to determination by the method of Bordet and Gengon at the end of the febrile period; in the majority of cases after the disappearance of pyrexia. It remains in the blood for a long time. (2) There is absolutely no relation between the presence of the immune body and the agglutinative reaction. (3) This method cannot be utilized for diagnostic purposes, except in cases in which it is desirable to determine the nature of a past infection to be typhoid fever. [A. R.]

May 1, 1902. (Vol. XIII, No. 18.)

1. The Secretion of Intestinal Juice. V. V. SAVITCH.
2. On the Normal Distribution of Medical Districts.

A. P. VOSKRESENSKI.

3. The Subsequent Influence on the Organism of Extirpation of One Kidney. L. V. SOBOLEFF.

1.—A number of Russian investigators made the interesting observation that an abundant secretion of intestinal juice takes place irrespective of feeding, and that the secretion stops as soon as the cannula is withdrawn. Upon the suggestion of Pavloff, Savitch undertook an investigation of this seemingly anomalous phenomenon. To a strongly zymogenic pancreatic juice he added various portions of intestinal juice, obtained from an isolated portion of the duodenum of dogs at various intervals after feeding and during starvation. To this mixture definite portions of finely ground-up fibrin were added. The length of time required for complete digestion of the fibrin served as an index of the strength of the intestinal ferment. It was found that while the presence of a cannula or any other irritant caused a secretion of intestinal juice, the latter was poor in zymogen, the presence and concentration of the ferment depending on the ingestion of food. However, the factor which is concerned in the secretion of the intestinal ferment is not the food, but the pancreatic juice; it alone was found capable of exciting the secretion, while the addition of milk, cream, fibrin, meat extract, bread, bloodserum, bile and pepsin failed to produce any effect. The only exception was fresh beef juice which acted as an excitant similar to the pancreatic juice. The author concludes that the secretion of the intestinal ferments is excited only by the presence of the pancreatic ferments, while the secretion of the watery portion of the intestinal juice may be affected by any irritant. [A. R.]

3. Will be abstracted when concluded.

THE PRACTITIONER.

July, 1902.

1. The Causation of Carcinoma and Sarcoma. (Continued.) ALEXANDER G. R. FOULERTON.
2. Operations for Cancer of the Uterus. W. J. SINCLAIR.
3. Operative Treatment for Malignant Disease of the Uterus. WALTER W. H. TATE.
4. The Present Position of the Surgical Treatment of Hip Disease in Children. G. A. WRIGHT.

1.—Will be abstracted when concluded.

2.—Sinclair gives a résumé of the various operations which have been performed for cancer of the uterus. He describes the paravaginal method of Schuchardt and tabulates the results of this operation. Radical abdominal extirpation is discussed as well as total extirpation per vaginam. Supravaginal amputation of the cervix uteri, with results of this treatment, is also considered, as are palliative surgical measures and the results of the chloride of zinc treatment. [T. L. C.]

3.—Tate presents an extended paper on the treatment of malignant disease of the uterus. For some years past most operators have advised complete removal of the uterus in cases of cancer affecting the cervix and have abandoned the supravaginal amputation of the cervix. Vaginal hysterectomy is the operation selected by nearly all operators for this disease. He describes the technique of this operation as well as the after-treatment, the mortality and number of cases of recurrence. Wertheim's operation is also described. This substitutes an abdominal operation for the old vaginal one. When the body of the uterus is the seat of malignant disease, he recommends a vaginal hysterectomy when this is feasible, or a vagino-abdominal hysterectomy when it is not. He closes his paper with a study of the after-results of operations for malignant disease of the uterus. [T. L. C.]

4.—Wright reviews the surgical treatment of hip disease in children. It appears that no very radical change has taken place in the treatment of hip disease in the last few years. Rest, extension and fixation by one or other form of splint, of which the varieties are many, and none better, once the limb is in position, than Thomas's; intra-articular and peri-articular injections of iodoform, extirpation of abscesses, or in some cases aspiration and injections of iodoform; excision when the disease is progressive in spite of treatment, and amputation when a useless limb and pelvic disease render recovery hopeless; constitute the main features of present treatment. [T. L. C.]

Special Article.

CURRENT VIEWS OF HODGKIN'S DISEASE.

The subject of Hodgkin's disease has recently received considerable attention from various writers in medicine, and a laudable effort is being made to raise it from the position of a mere clinical syndrome to a distinct pathological entity. Curiously enough, the investigations of this subject by different observers have resulted in the suggestion of a considerable number of theories so inconsistent with each other that we are forced to conclude either that some are wrong, or that as a basis for the clinical picture of Hodgkin's disease we may actually have a considerable number of morbid processes. For a long time, of course, Hodgkin's disease was supposed to be a condition in which there was general enlargement of the lymph glands, the liver and spleen. The relative extent of enlargement of these organs varied greatly in different cases, and only recently cases in which the spleen alone was abnormally enlarged have been described as splenic Hodgkin's disease. In addition the patients showed a profound cachexia with finally an extreme degree of anemia, but without—excepting in the terminal stages—any increase in the number of leukocytes. In some cases fever was observed, and this either followed a certain rhythmical course or was unusually irregular. To the former group belong all the cases resembling those first described by Murchison and Gowers, and subsequently by Ebstein and Pel, and to which Ebstein gave the name of "chronic relapsing fever." Musser, (*American Medicine*, January 4, 1902) has recently reported two additional cases of this character and has given a careful review of the literature of the subject. In one of these two cases tuberculosis of the lungs and pleura became manifest before death. In neither case, unfortunately, was an autopsy obtained, but Musser inclined to the belief that the second case was probably tuberculous in nature, and basing his opinion partly also upon his studies of the literature that the disease is not improbably an expression of lymphatic tuberculosis. In reaching this conclusion he is more or less in general accord with the views of previous writers, views which have been summarized by Pinkus under the statement that, the more carefully the lesions of pseudoleukemia are studied, the more frequently is tuberculosis found to be the cause, and therefore it is not unlikely that ultimately all these cases will be shown to be due to infection with the tubercle bacillus.

Sailer (*Philadelphia Medical Journal*, April 5, 1902) more recently gives the clinical histories of four cases which in some respects resembled Hodgkin's disease, two of which showed general glandular enlargement after death, some of the glands being firm, some of them showing the characteristic appearance of hemolymph glands, and others showing tuberculous softening. In addition two of the patients had pulmonary tuberculosis of the chronic type, and all of them showed more or less miliary tuberculosis of the organs. The histological changes

in one case that was studied by Dr. McFarland failed to show the characteristic picture of tuberculous infection, although studies of the other tissues made it beyond a doubt that tuberculous infection existed. In another case the patient was given injections of tuberculin through the course of the disease, but failed to show any reaction. Sailer reviews the literature of this subject, and arrives at the conclusion that the weight of evidence is strongly in favor of the tuberculous nature of pseudoleukemia, but that, at present we cannot be certain that all cases are of this nature. It can be said, however, that, unless a sufficient number of inoculations from the enlarged glands are made, and unless careful histological examination of the glands with staining for tubercle bacilli is practised, tuberculosis cannot be excluded either by absence of gross tubercular lesions in the body, or by the absence of the histological changes of ordinary tuberculosis of the lymph glands. Sailer suggests that perhaps there may be sufficient variability in the tubercle bacillus to produce different lesions in different cases. The question is, of course, complicated by the fact that tuberculosis may apparently be associated with various forms of tumors. The presence of the tubercle bacillus in various types of carcinoma has long been known. More recently Risel (*Deutsches Archiv f. klin. Med.*, Vol. 72, p. 31) has reported two cases of chloroma, both of which were remarkable for the fact that the lymphoid tissues were chiefly involved, and that some of them showed distinct tuberculous changes. Inoculation experiments were not made in either case with the apparently nontuberculous growths, and, therefore, there is no positive reason for asserting that the ordinary chloroma of pathology is actually a manifestation of tuberculous infection.

Recently Reed (*Johns Hopkins Review*, Vol. 10, p. 133) has reported careful histological studies on a number of cases of Hodgkin's disease, and has reached the conclusion that there is a form of this condition, which she regards as the only true form, that has nothing to do with tuberculosis, and is therefore a clinical and pathological entity; that the histological picture is specific and sufficient for diagnosis, and that eosinophile cells are usually present in great numbers and, when present, help to strengthen the diagnosis. She also gives a partial review of the literature of the subject. In 8 cases which she examined, tuberculin was given to five, and no reaction occurred. One patient died of tuberculosis, and a rabbit inoculated with a piece of gland from this patient died in 31 days of tuberculosis. Another rabbit died in eight weeks after inoculation with the glandular tissue of another patient, but the cause of its death could not be determined. Two guinea-pigs inoculated from a third patient died in about five weeks, and the cause of death was not determined, and one rabbit inoculated from the third case was killed at the end of a full month and found to be healthy. In the tissues of three cases which came to autopsy careful examinations were made in smears and sections for the presence of tubercle bacilli, but these organisms were not found. The most striking feature of the histological changes

were the giant cells and the eosinophiles. These giant cells were not similar to those found in tuberculous lesions and, according to Reed, were of great assistance in the diagnosis. Nevertheless, the picture is such that the author is more strongly inclined to the theory of the infectious nature of this process than to the theory that it belongs to the tumor group. Therefore, with the work of Sternberg and others, on the one hand, and of Fischer and Reed, on the other, it seems that the question is still incapable of definite solution, but we are inclined to agree with Pinkus that ultimately the majority, if not all, of the cases that present the clinical picture and the gross pathological changes mainly ascribed to pseudoleukemia, will be found to be due to infection with the tubercle bacillus.

THE SCOTTISH MEDICAL AND SURGICAL JOURNAL.

May, 1902. (Vol. X, No. 5.)

1. Cacodylates as Therapeutic Agents. T. R. FRASER.
2. Some Remarks on the Action of Purgatin.
C. T. MARSHALL.

1.—Fraser gives the opinions of the various authorities concerning the use of cacodylates as follows: (1) Dalché stated that of 9 cases of pulmonary tuberculosis treated with sodium cacodylate, subcutaneously injected, 3 were undeniably cured; 4 were greatly improved, having gained in weight and muscular strength; 2 showed no results and 2 very advanced cases became worse. (2) Anelli also has had marked improvement in tubercular cases. He failed to obtain success with subcutaneous administration and injected 8 grains daily intravenously; almost immediately improvement commenced with notable reduction in the temperature and respiratory movements; while at the end of 3 weeks the pulse-rate had fallen from 96 to from 80 to 85 per minute, the night-sweats, tubercle bacilli and staphylococci became greatly less. (3) Rocaz treated 80 cases with good results. (4) Gallois, in administration by the mouth, always found increased appetite and augmented weight. (5) Quelmé in a number of cases of scrofula noticed no inconvenience in administration by the mouth with occasional intermission. (6) Ewart's experience led to his conclusion that the drug was indicated when arsenic could be used. (7) Burlureaux met with gratifying results in neurasthenia, chlorosis and paresis, but with little success in tuberculosis. (8) Bormans found it very useful in anemia. (9) Danlos obtained good results in pseudoleukemia and psoriasis. (10) Renaud found it very successful in lupus erythematosus, cutaneous tuberculosis and sarcoma of the skin. In leprosy 1.5 grains daily are advised, injected subcutaneously. (11) Renaut concludes that this compound is superior to the ordinary preparations of arsenic. (12) Gautier has had beneficial results in tuberculosis, in all emaciating diseases, in severe anesthesia, in all skin diseases, scrofula and syphilis. [T. M. T.]

2.—Marshall states that purgatin is a slow, but, under ordinary circumstances, a sure purgative with no serious after-actions. The colic occasionally induced is of a mild character. In large doses it undoubtedly gives rise to renal irritation and hence should not be given when renal trouble exists. It is mainly indicated when a mild laxative is required, but it is very doubtful whether it will be found better than the ordinary crude drugs in cases of habitual constipation. The discoloration of the urine is unfortunate, but if patients are warned of this, it need not prove a barrier to its use. [T. M. T.]

Original Articles.

HODGKIN'S DISEASE.*

WITH THE REPORT OF A CASE,
By THOMAS C. ELY, A. M., M. D.,
of Philadelphia.

Devotees of medical literature are prone to worship at the shrine then most popular, which may account for the mass of literature, particularly of late, regarding "Hodgkin's disease."

Again, in proportion to the difficulties of solving a problem, the number of solutions is apt to be numerous, and the etiology of this disease seems now quite as obscure and puzzling as when Hodgkin's original paper first appeared.

Modern histology and pathology can add little to the original observation made by Hodgkin, which gives us the first classical clinical picture of this disease.

Synonyms.—Some confusion of the subject is apparent in the literature in the unusual number of names ascribed to Hodgkin's disease; I have found some fifteen synonyms. The condition has been variously known as:

1. Hodgkin's disease (after the great morbid anatomist of Guy's Hospital).
2. Pseudoleukemia (Wunderlich).
3. Lymphadenosis.
4. Lymphadenoma.
5. Malignant lymphoma (Billroth), from its invariably fatal termination.
6. Adénie (Trousseau).
7. Lymphadénie (Ranvier).
8. Anemia lymphatica (Wilks).
9. Recurrent (Rückfall) fever or Ebstein's disease.
10. Lymphatic tuberculosis (Sternberg's disease). (Musser agrees with Sternberg that the pathological condition is one of lymphatic tuberculosis.)
11. Lymphosarcoma (Virchow). (Ehrlich and Lazarus agree with Virchow regarding the condition of lymphosarcoma.)
12. Adenoid disease (Southey).
13. Lymphatic cachexia (Mursick).
14. Desmoid carcinoma (Wagner). Confusion is particularly apparent in the nomenclature and classifications, especially in the following five forms of disease.

1. Pseudoleukemia.
2. Leukemia (even the splenic and medullary forms, but especially the so-called lymphatic variety, the morbid anatomy and pathology being apparently quite the same, except the number of leukocytes present in the blood).
3. Lymphosarcoma.
4. Pseudoleukemia infantum, or von Jaksch's disease.
5. Lymphatic tuberculosis, particularly the hyperplastic tubercular conditions.

The functions of the leukocytes, as related to their absence in large numbers in Hodgkin's disease, and their abundant presence in leukemia cases and cases in which the former disease is admitted to

*Read before the College of Physicians, Philadelphia, October 1, 1902.

verge into the latter and vice versa, must remain problems for future solution. They certainly add to the confusion.

Whether some of the above diseases will be proven to be identical by the discovery of their etiology, which is still unknown, remains to be seen. It is at least to be hoped by the busy practitioner that soon a more simple nomenclature and classification may be adopted.

History.

The earliest description of the general enlargement of the lymphglands, together with the presence of nodules in the spleen, was given by Malpighii in 1669; but, apparently, he did not consider that the combination of these two morbid conditions constituted a definite disease. Craigie (*Pathological Anatomy*, 1828; *Diseases of Glands*, p. 250) defined the anatomical characters of the glandular enlargements and pointed out how they differed from those of scrofulous enlargement and from cancer of the glands.

To Dr. Hodgkin rightly belongs the credit of having first described and published, in 1832, the main features of the disease which now bears his name.

Velpeau, in 1839, described the enlargement of the lymphatic glands which was not associated with scrofula.

In 1856, Sir Samuel Wilks drew attention to some cases and to their similarity to those described by Hodgkin twenty-four years before.

In the same year, Bonfils also described a case. In 1858, Billroth described the structure of the enlarged glands, and Wunderlich published two cases.

In 1859, further contributions were made on the subject by Paxy and by Cossy. Virchow gave a short description of the disease in 1864. In 1865, Cornil collected the cases which had already been observed and recorded two others. The same year Trousseau devoted a chapter in his *Clinique Médicale* to a description of the disease, to which he gave the name of adénie.

In 1866, Wunderlich gave the first thorough account of the disease in German. In 1870, Murchison (*Trans. of the Path. Soc. of London*, 1870, Vol. XXI, p. 322) reported a case, in a child of six, occurring ten months after whooping-cough.

Eustace Smith (*Disease of Children*, 1884, p. 220) reports an undoubted case in an infant of eight months.

In 1898, Sternberg reported fifteen cases of this disease, which he believed to be a lymphatic tuberculosis.

In 1902, Musser called attention to the peculiar recurrent type of fever noted in these cases.

Dr. Hodgkin's original paper appeared in the seventeenth volume of the *Medico-Chirurgical Transactions*, published by the Medical and Chirurgical Society of London. The paper was read January 10th. and 24th., 1832, under the title "On Some Morbid Appearances of the Absorbent Glands and Spleen."

He says in part: "The morbid alterations of structure which I am about to describe are probably familiar to many practical morbid anatomists, since they can scarcely have failed to have fallen under their

observation in the course of cadaveric inspection. They have not, as far as I am aware, been made the subject of special attention, on which account I am induced to bring forward a few cases in which they have occurred to myself."

He then reports six cases: One in a boy of nine years, who had slept with a brother who had died of phthisis some time before. Case two was in a boy of ten years; case three in a man of thirty years; cases four, five and six in males about the age of fifty. He details the history of each of these cases and then goes on to state that it may be observed that, notwithstanding some differences in structure to be noticed hereafter, all of these cases agree in the remarkable enlargement of the absorbent glands accompanying the larger arteries, namely, the glandulæ concatenatæ in the neck, the axillary and inguinal glands, and those accompanying the aorta in the thorax and abdomen. The enlargement of the glands appeared to be a primitive affection of these bodies rather than the result of an irritation propagated to them from some ulcerated surface or other inflamed texture through the medium of their afferent vessels.

Unless the word inflammation be allowed to have a more indefinite and loose meaning than is generally assigned to it, this affection of the glands can scarcely be attributed to that cause, since it is unattended with pain, heat and other ordinary symptoms of inflammation, and is not necessarily accompanied with any alteration in the cellular or other surrounding structures and does not show any disposition to go on to the production of pus or any other acknowledged product of inflammation.

This enlargement in nearly all cases consists of a pretty uniform texture throughout, and this rather to be the consequence of a general increase of every part of the gland than of a new structure developed within it, and pushing the original structure aside as when ordinary tuberculous matter is deposited in these bodies.

Another circumstance which has arrested my attention in conjunction with this affection is the state of the spleen, which, with one exception, has been found to be more or less diseased, in some thickly pervaded with defined bodies of various sizes, and in structure resembling that of the diseased glands.

In one instance it may be remarked that, although the glandular enlargement had advanced very far, the depositions in the spleen were extremely minute, assuming the appearance of miliary tubercles.

It will be seen by this description that Hodgkin had in mind the possible tuberculous nature of the disease, and it is quite evident that two of his reported cases were tuberculous.

The following are a few cases, found in the literature, which seem to point to a tuberculous origin of the disease:

E. G. Wood (*Med. and Surg. Bull. of Nashville*, 1900, LV, 385-392) reports four cases of Hodgkin's disease; man of thirty-nine, girl of fourteen, woman of thirty and boy of six years; in the latter case, the child was well until two years ago. His grandfather, two aunts and one uncle on paternal side died of phthisis; two years ago he had an attack of ton-

sillitis, which was followed by enlargement of the glands behind the angle of the jaw on the left side; they slowly increased in size and others became affected. In ten months the glands of the left axilla were enlarged, six months later the glands on the right side of the neck, axilla and groin were involved, and finally a tumor in the left side of the abdomen was noticed; these glands have increased in size for several months; he has had irregular febrile attacks, $100-102^{\circ}$, lasting for three to four days and passing off for a week to return again. The child was still living at the time of the report. The spleen in this case was much enlarged, and a blood count showed 2,238,000 red bloodcorpuscles, no leukocytosis.

Dr. Finlayson (*Glasgow Med. Jour.*, 1900, Vol. 53, p. 382) reports a case in a man of thirty-nine, which began first with swelling in the left groin; loss of flesh and weakness gradually made their appearance; history of tuberculosis on father's side of family; patient also had a son who died of tuberculosis, and at the post mortem the patient was found to have an old tuberculous nodule in the apex of the right lung.

Examination showed the neck, axilla and groin on either side to be the seat of masses of enlarged glands. Blood count: Red bloodcorpuscles, 4,240,000; white bloodcorpuscles, 6,000; temperature 101° to 103° F. for seven or eight days, then it was normal for seven days, then another spurt of fever for ten days; no enlargement of spleen. The patient was put on arsenic and iron and improved for a short while, but finally succumbed. At the autopsy masses of enlarged glands were found in the mediastinum and along the mesentery, even extending along the spermatic cord. This was evidently a case of tuberculosis.

Definition.

The disease may be described as a progressive anemia without increase in the number of leukocytes, but in other respects resembling leukemia. In both instances we have the same progressive hyperplasia of the lymphatic glands. The enlargement of the glands is due to an overgrowth of the adenoid tissue, which in some cases becomes largely converted into fibrous tissue; we also have lymphatic foci in the liver, the spleen and the glandular organs in all parts of the body. In the blood the red corpuscles may be diminished in number and deficient in hemoglobin, while in some cases the leukocytes may be increased.

With no discoverable anatomical differences, with identical clinical features, with quite identical pathological changes in the bone marrow, spleen and lymphatic glands, the one has been regarded as an aleukemic stage of the other; lymphoid infiltration of the liver, kidney, lungs, heart and other tissues may occur in both instances.

Strumpell says: Similarity of symptoms in their general course, in the organic changes produced, renders it impossible to draw any sharp dividing lines and, even in the blood-changes, pseudoleukemia may merge into genuine leukemia (Strumpell, *Text-Book of Medicine*, 1900).

Pathology.

Occasionally the glands are hard and firm, but in most cases they are soft and elastic. In the beginning the glands are isolated, but later they fuse and may form large masses and, in the neck and mediastinum, may cause dyspnea from pressure. On section, the tumor has a grayish-white appearance and exudes an opaque fluid, which contains lymphocytes; very rarely the glands will be found to be caseous. The tonsils, esophagus, stomach and intestines may present ulcerated nodules, originating in the follicular glands. The glands most often affected in the order of frequency are cervical, axillary, inguinal, retroperitoneal, bronchial, mediastinal and mesenteric.

Gowers reports one case in which the abdominal and pelvic glands weighed eight pounds. In seventy-five per cent. of cases collected by Gowers, the spleen was enlarged, but the enlargement is not nearly so great as in leukemia.

Course and Duration.

In acute cases the patient rapidly becomes worse. In chronic cases the disease may remain stationary for some time; the duration varies from five to six weeks in acute cases, to several years in the chronic form. Gowers gives the following table of fifty fatal cases:

Less than one year in eighteen cases.

Between one year and two years in fifteen cases.

Between two and three years in six cases.

Between three and four years in six cases.

Over five years in one case.

Symptoms.

The most important is the enlargement of the glands; anemia, enlargement of the spleen, rise of temperature, progressive loss of strength and emaciation; enlargement of the superficial glands is the most frequent of the early symptoms, in more than one-half it is the first. If the deep-seated glands, such as the mediastinal or retroperitoneal, enlarge first, the diagnosis is necessarily very difficult, and we then may have *pressure symptoms* as the first sign. The cervical glands usually enlarge first, singly at first, but later they may coalesce and form large masses, the larynx may be displaced laterally, or the trachea may be narrowed from pressure, causing dyspnea, or we may get difficulty in swallowing from pressure on the esophagus; we may have pain from pressure on the sensory nerves, and from lymphadenoma in the stomach and intestines you may get nausea, vomiting and diarrhea. The spleen is frequently enlarged, but this is not an early symptom and cannot be detected until after the glandular enlargement; it never reaches the large size that we get in splenic leukemia, it is frequently irregular owing to the nodules of the adenoid tissue.

Blood:—Anemia may be profound, is a common symptom, appears early, and in consequence of the anemia we get weariness, lack of energy, edema of the feet, etc.

In many cases there are fifty to sixty per cent. of the normal number of red corpuscles, while in some there are as few as twenty-five per cent, sometimes

we get poikilocytosis. In the majority of cases there is no excess of leukocytes in the blood. Gowers found that out of sixty-four cases there was no leukocytosis in thirty-nine, although in twenty-five per cent. there was some excess of white corpuscles; if there is leukocytosis, it is usually due to an increase in the number of lymphocytes. As a consequence of the anemia there may be a fatty degeneration of the heart, with weak and irregular pulse.

Temperature.

Gowers found that fever was present as a symptom in two thirds of the cases in which the temperature was taken; it is more frequent in the acute than in the chronic cases and occurs in nearly all of the patients under twenty years of age. Gowers describes three modes of the pyrexia. (1) The temperature is continuously raised from two to five degrees above the normal and only varies a degree or a degree-and-a-half in the twenty-four hours; (2) there are periods of several days of high fever alternating with periods of normal temperature; (3) marked daily variation, 101° to 103° , in the evening falling to 100° or normal in the morning. Convulsion and coma from impoverishment of the blood are noted in children.

Etiology.

Tuberculosis is the only disease which seems to predispose to it. It is much more common in males than in females. It has been noted that nasal catarrh, decayed teeth, inflamed tonsils, discharge from the ear, eczema or some local irritation might play a causative part. In pediatric practice perhaps no lesion is more common than enlargement of the lymphatic glands, particularly of the cervical group. The original cause, no doubt, lies always in the skin or mucous surfaces, but is often unnoticed, the first lesion being the adenitis. It seems, undoubtedly, an *infection*, and pyogenic germs of whatever type may be absorbed from the tonsil or any one of the many avenues of entrance.

The disease is not common before the twentieth year and most common between the twentieth and fortieth years. The exceeding rarity of Hodgkin's disease in children, as remarked by Holt, renders the present case interesting, occurring in a child of three years, the process beginning at the age of two years.

M. L., German, in the third year, had a severe attack of whooping cough, continuing for four months, from November, 1900, to March, 1901. Both parents are living and in good health. The only point of interest in the family-history is the fact that both the father's mother and the mother's mother died of pulmonary tuberculosis, and both at the age of forty. Grandfather and three uncles on the mother's side of the family died of phthisis pulmonalis. The child was just lacking one month of being four years of age when she died. She had had none of the other diseases of childhood. The superficial cervical glands first enlarged in March, 1901, a seeming sequel to whooping cough, and it is an interesting query whether this date represents the beginning of Hodgkin's disease. If so, the child's age at the onset of the disease was two years and ten months. The posterior cervical glands which enlarged at this time never returned to a normal size, though the child was regarded as well, and only the mother's statement in reviewing the history confirms this fact, that she could always feel the kernels in the neck, though much diminished in size. It is an interesting query whether at this date the tubercle bacilli were the cause, or whether

the cause was some toxin peculiar to Hodgkin's disease and as yet unknown. If the chief causative factor was a glandular predisposition, a type of tissue vulnerable to special or general micro-organisms, a so called lymphatism and absorption through an abraded surface, either skin or mucous membrane, of pyogenic micro-organisms, then the cause might have been traced to an eczematous eruption (which was present at this date, March, 1901), and which appeared over the occipital region. It was of a dry and scaly nature, and there were other such smaller patches over the body. Large crusts were on the nose, upper lip



A Case of Hodgkin's Disease.

and mouth. The tonsils were enlarged at this time, and there was a catarrhal condition of the pharynx, nasopharynx and nasal mucous membrane. She was ordered an ointment containing menthol and salicylic acid, and an alterative mixture of the four chlorides was given. The skin lesions disappeared, glandular swelling decreased to almost normal in three months and the child was considered well. Five months after the original attack (in August, 1901), the postcervical glands on the right side enlarged with febrile disturbance and, following this, the anterior cervical on the same side and, in sequence, the anterior and posterior cervical on the left side. In appearance the glands seemed like the ordinary catarrhal adenitis often seen with influenza, or infections from the tonsil, and were regarded as of no more importance. Four chlorides were again given and the glands decreased in size, fever disappeared and the child seemed healthy, except the persistence of considerable glandular enlargement about the angle of the jaws. Surgical measures were suggested, with the view of removing, perhaps, tubercular foci of infection, but were refused. In October, with febrile disturbance, the glands still further enlarged and the axillary glands were palpable and in November, in the third marked febrile attack, the glands in the groin were also palpable. In the periods of apyrexia, the child never complained of pain, slept well and played about as the other children of

the family. In the febrile stage there was anorexia and sometimes nausea and vomiting. The fever was of a *remittent* type and in each instance having a temperature range from 100° to 102°, for one or two weeks, and then a longer interval of *apyrexia* with a peculiarly *ravenous* appetite. The defervescence was slow and generally accompanied with *sweating*, the swelling of the glands in the neck and axilla diminished slightly in size in the *apyretic* intervals, though the glands were *progressively larger* from mouth to mouth until they presented the *frightful picture*, as shown at the time of the child's death in April. During the latter months there was great respiratory distress and rapid breathing, pulse was over 120, profuse nose bleed occurred on several occasions. Puffiness about the neck from pressure probably on the cervical and intrathoracic veins occurred. Visible pulsation of the cervical vessels. Crepitation and small rales over the lungs. Liver and spleen were apparently enlarged in size as indicated by palpation and auscultatory percussion. Urine was normal throughout and no tubercle bacilli could be found in material coughed up or vomited. Lymphatic nodes involved cervical, axillary, inguinal and, late in the course of the disease, the retroperitoneal lymphglands which were enlarged and formed a palpable mass to the left of the umbilicus. Edema of the extremities also occurred at this time. The blood examination, made four weeks before death by Dr. J. Alison Scott, who saw the patient in consultation, shows: Hemoglobin 18%; whites 6066; reds 3,624,000. Some poikilocytosis, no nucleated reds found. Differential count: Polymorphonuclear 86%; small lymphocytes 12%; large lymphocytes 1%; eosinophiles 1%. Total 100%. Death occurred eight months after the first attack of fever, and enlargement of the glands was accompanied with great distress, nausea and vomiting.

I regret exceedingly the incompleteness of this report from the fact that no autopsy could be obtained, but I regret still more my inability to have tested inoculation experiments in the eyes of guinea-pig with a view of determining the causative factor in this disease.

Differential Diagnosis.

1. Lymphosarcoma, small-celled sarcoma of lymphglands involves organs rather than glands, and not the general involvement of one group of glands after another. It is sarcoma and usually adherent to the skin. It rapidly invades surrounding tissues, fuses with them, and destructive ulceration soon appears.

2. Local benign lymphomata. This is a simple persistent hypertrophy of certain glands of benign nature without extension.

3. Syphilitic adenitis will be diagnosed by the late symptoms, by diseased bones, nose and throat, keratitis, periostitis and by the therapeutic test.

4. From leukemia by the enlarged spleen, hemorrhages, diarrhea and by the blood examination.

5. From chronic or acute adenitis, time reveals its true nature, essentially a disease of infancy, slow increase, has a definite exciting cause and terminates in resolution or suppuration.

Conclusions.

It helps to lift the fog regarding Hodgkin's disease when so high an authority as Dr. J. H. Musser, agreeing with Sternberg, places himself on record that he regards the condition as of tuberculous origin and the disease in fact tuberculous. (*Philadelphia Medical Journal*, Vol. III, No. 1, P. 13). There is circumstantial evidence in the fact that the lymphglands are one of the most frequent seats of the tuberculous process.

In Hodgkin's disease the process begins as a purely local disease, in a gland or chain of glands, and seems to extend by spread of germs, just as we may expect of *tuberculous* processes. Cases associated with eczema of the scalp, or any abraded surface of skin or mucous membrane, which *seems* to be the starting point of many cases of Hodgkin's disease, we may explain by the fact that *tubercle* bacilli pass through the skin, without lupus or tuberculous skin inflammation and, not finding in the skin a favorable soil, pass on to neighboring glands of the neck or axilla in a predisposed individual.

Presumptive Evidence.

An increasing number of diseases, formerly otherwise described, are now found to be of *tubercular* origin. Practically all primary pleurisies, scrofulous diseases of lymphglands, bones and joints, chronic affections of the eye and ear and other organs, lupus vulgaris and Pott's disease.

The identity of the pearly distemper of cattle with *tuberculosis* and various other diseases, which have recently been classed with *tubercular* disease, makes one think that Hodgkin's, on account of its similar symptomatology, may also *belong* to *this class*. And if inoculation experiments only were regarded as proof, Hodgkin's disease might perhaps be added *definitely* to the list.

Only inoculation experiments with the suspected gland itself seems positive proof. Clinical observation, and even autopsy, with most careful histological and microscopical examination has not unearthed the cause.

Many histological changes found at autopsy are undoubtedly due to secondary infection with secondary inflammations, which must give a great diversity in the anatomical picture and which emphasizes the necessity for inoculation proof.

Says Strumpel, "The tuberculous new growth as such can scarcely ever be recognized histologically from the infectious tumors, such as those seen in leprosy and syphilis," which again emphasizes the necessity for inoculation proof.

Even in phthisis pulmonalis there is a similarity in the fact that fever may be absent for a time, for weeks or months. And in fibroid unilateral contraction there may be no *fever* at all for periods just as in *Hodgkin's disease*.

In phthisis we have the open avenues for pathogenic germs, while in Hodgkin's disease the comparative protection of the lymphatic system from secondary infection must necessarily greatly *modify* the *symptoms* in the two instances.

Even in the lung we find firm, cicatricial formation and cheesy masses that may be re-absorbed and undergo calcification, cases which are difficult to prove tubercular by histological detail, though we *now know them to be such*.

From the classical tuberculous glands, of course, Hodgkin's disease differs in its *final stages*. The final stages of classical tuberculous glands are cheesy degeneration and tuberculous ulcers.

In the fibroid glandular inflammation of Hodgkin's disease, the deficiency of bloodvessels, and conse-

quent deficiency of nutrition, which causes this coagulation necrosis in the former instance, may modify the result in the latter, the *cause* being the same.

Whether the glands shall suppurate and caseate as in classical tuberculosis, or become fibroid as in Hodgkin's disease, is determined not so much by the character of the micro-organisms, nor by the virulence of the toxin, as by the nature of the lymphatic system itself, by hereditary or by an acquired cause.

The specific cause of Hodgkin's disease may be the tubercle bacillus and, with little regard to the external anatomical characters of the glands in question, proofs must be regarded as insufficient and experiments incomplete without inoculation in the eye chamber of the guinea-pig and awaiting the appearance of tubercle in the iris.

Anatomical characters without the now well-known proofs of inoculation are just as puzzling to us as they were to Laennec or Virchow and those earlier investigators who were ever at odds on the question of definitely established anatomical changes specific of tuberculosis.

Diffuse tubercular and cheesy infiltration and isolated tubercle were all found to be different manifestations of the *same* thing, from the proofs of inoculation, setting aside histological appearances, and minute cellular investigations of to-day, present as little harmony over the question as grosser changes did in the earlier years; and a uniform anatomical basis for a definite decision of tuberculosis seems to have never been possible, and all classifications of glandular diseases as tuberculous or otherwise without inoculation experiments must be regarded as incomplete.

INFANTILE SCURVY.*

REPORT OF A CASE WITH FRACTURE OF THE FEMUR, AND MULTIPLE EPIPHYSEAL SEPARATIONS.

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of Pittsburg, Pa.

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Prior to the report of the following case, permit me to give a brief résumé of what is known of infantile scurvy at the present time. Our present knowledge of this interesting disease is mainly due to the researches of a number of English observers, notably Barlow, Gee and Cheadle. In 1883, Barlow gave a full description of thirty-one cases of infantile scurvy. In our country the first detailed report of this disease was made by Northrup at a meeting of the American Pediatric Society in September, 1891.

The term "infantile" is used to distinguish it from the scurvy of adults. While presenting the same general characteristics of adult scurvy, it differs from it in some of its clinical manifestations. Infantile scurvy is a disturbance of nutrition, caused by a lack of fresh blood. It is characterized by anemia, extreme hyperesthesia, ecchymoses, swellings, pseudoparalysis and occasionally fractures of the lower ex-

tremities, spongy, bleeding gums and hemorrhages from other mucous surfaces.

The majority of cases occur between the eighth and twentieth months. Anemia is an invariable accompaniment of infantile scurvy and varies in degree according to the severity of the attack. On examination of the blood it has been found that the red bloodcorpuscles varied from 2,200,000 to 3,800,000 in a cubic millimeter, hemoglobin from 80 to 50 per cent. The red corpuscles frequently present the regular appearance known as poikilocytosis. Hyperesthesia and swellings of the lower extremities are some of the earliest and most constant features of the disease. Pressure along the tibia is frequently attended with considerable pain. The pain is increased by any motion or pressure, but otherwise does not seem to be present. The swellings are usually found above or below the knee joints. There is no alteration in the color of the skin; it is not hot and does not pit on pressure. The patient keeps the affected limb perfectly still, so that it appears to be paralyzed. This symptom has been termed pseudoparalysis of scurvy and corresponds to the same condition sometimes seen in rheumatic and syphilitic affections of the joints.

Fractures from slight causes occasionally occur. In the more advanced stages of the disease, soft crepitus is sometimes obtainable near the epiphyses of the femora. Fractures in the middle of the femur are exceedingly rare.

The gums also furnish us with characteristic symptoms. They are swollen, bleed easily and are often of a purplish or livid hue. Ulceration of the mucous membrane is usually present. It must be remembered that these changes in the gums are never seen before the eruption of the teeth.

Hemorrhages are not uncommon and may occur from the mouth, nose, stomach, bowels and, occasionally, from the kidneys. In advanced cases hemorrhages may take place to such an extent in the deeper parts around the eye as to produce a condition of exophthalmos. Fever is present in a certain number of cases and is usually intermittent in character. It may be due to the disease itself, or it may result from the gastro-intestinal disturbances which usually accompany the disease.

On post mortem examination the most characteristic lesions found are subperiosteal hemorrhages, chiefly of the long bones. The femora are most commonly affected and there is a tendency to separation of the epiphyses. Hemorrhages into mucous surfaces and into the skin are more or less constant.

The diagnosis of infantile scurvy is usually very readily made in well-developed cases. Mild cases are sometimes so obscure that a positive diagnosis is difficult. The symptoms to be relied upon for diagnosis are those previously mentioned, with the history of bad feeding, usually the prolonged use of some proprietary food. Perhaps the most diagnostic of all symptoms is that the disease is immediately improved, and in some instances rapidly cured, by an antiscorbutic diet without other treatment.

Infantile scurvy is most frequently confounded with rheumatism. The disease may also be mistaken for rickets, purpura, syphilis and otitis. By

*Read before the Pennsylvania State Medical Society. September 17, 1902.

close attention to the history and symptoms these diseases, as a rule, can be readily eliminated.

The prognosis in infantile scurvy is good if the disease is recognized early. If left untreated, all the symptoms may become pronounced and the patient may finally die of exhaustion.

Infantile scurvy, like rachitis, may be considered a preventable disease. Since the disease is due to improper food for feeding, it may not only be prevented but also cured by the observance of proper rules of feeding. Fresh cow's milk, properly modified, with orange and beef juice, is capable of effecting a complete and rapid cure. Intercurrent disorders may be relieved by drugs, but it must be understood that drugs are absolutely unavailing for the cure of scurvy.

During the past year the following very interesting case came under observation:

Marcella A., born December 5th., 1900.

Family History.—Father and mother have always enjoyed excellent health. There are 3 other children in the family, all of whom are exceptionally healthy and have never suffered from any constitutional diseases.

Previous History.—When 10 days old, had impetigo contagiosa, from which she recovered in a short time. She was at that time normal in weight and development and was wet-nursed. Six months later she was brought to me suffering from a chronic fermental diarrhea. She was extremely emaciated, anemic and presented some evidences of rachitis. At this time, however, there were no symptoms pointing to a scorbutic condition, and my attention was directed entirely to the diarrheal disease. The mother informed me that she had been unable to nurse her infant after the first month, and had fed it exclusively on condensed milk. Under appropriate treatment and diet the patient recovered, although suffering several serious relapses of the diarrheal disease during the summer. On September 3d., 1901, the mother brought the baby to my office, stating that its right limb was swollen. On examination I found a complete fracture of the right thigh at the junction of the middle and lower thirds of the femur. The closest questioning elicited no history of even the slightest violence, and the cause of the injury was a complete mystery. The fracture was treated in the usual manner, and, at the expiration of several weeks, there was perfect union and no appreciable shortening. On October 16th. the mother noticed a swelling over the right tibia, which had appeared suddenly. The swelling was diffuse, fusiform in shape and painful on pressure. The limb was extended and was seldom moved by the patient. The skin was not discolored, and no ecchymosis could be found on any portion of the body or limbs. The gums were normal in color and condition; no teeth were present. The mother stated that the baby was fretful and appeared to be "sore all over." She also admitted that she had discontinued the use of the modified cow's milk and broths, and had substituted Mellin's Food. The diet was changed to modified cow's milk, raw beef- and orange juice, and cold compresses were ordered to be applied to the swelling. Under this treatment the swelling rapidly disappeared. On December 3d. I was again hastily summoned. While sitting in its chair, the baby suddenly lurched backward, striking its left knee against the table attachment. On examination I obtained distinct crepitation immediately above the knee joint. The limb was placed in splints and, subsequently, in plaster of Paris. Recovery took place without any deformity. On May 1st., 1902, this unfortunate infant met with another accident by falling out of its carriage and sustaining an epiphyseal separation at the lower end of the humerus. The violence causing this injury was considerable and might have produced a similar injury in a perfectly healthy subject. The result was as favorable as in the preceding accident. At the time of this last injury the infant's general condition was excellent. It had gained considerably in weight and to all appearances was in perfect health.

This case presents a number of points of interest.

Although a tendency to epiphyseal separation and fractures exists, it is generally admitted that such accidents are of somewhat unusual occurrence in infantile scurvy. Indeed, Barlow states that a complete fracture of the femur in this disease is a rather rare accident. It is still more unusual that this rare accident should occur at the first manifestation of the disease.

Although the case permits of a certain amount of doubt as to diagnosis, I am convinced that it is one of infantile scurvy. We are apt to base our diagnosis of this disease on the spongy, bleeding gums, accompanied with a tenderness of the limbs. Barlow states explicitly that the mouth symptoms are invariably absent before the eruption of the teeth. The periosteal swelling was so characteristic of the disease that the diagnosis of infantile scurvy could be based on this one symptom alone.

ACROPARESTHESIA.

By FRANK R. FRY, A. M., M. D.,
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I may best introduce my subject by a quotation from Dana on paresthesia, and one from Church and Peterson on acroparesthesia.

Dana: "The condition known as paresthesia is one which should be more familiar to physicians, and be more commonly recognized and understood. Paresthesia is the name given to a number of subjective sensations, such as prickling, numbness, creeping sensations, tickling and burning. It includes, in fact, nearly all the subjective sensations of the skin, except those of pain. It is a condition, therefore, which is extremely common, and in its mildest and most trivial character is much more often experienced than pain. When these sensations fix themselves in a certain locality, following, perhaps, the course of a nerve, or fastening themselves upon the hand or foot, they take a certain clinical picture and deserve to have the name of a disease to just the same extent that neuralgia does. Paresthesia, in almost all cases, implies simply a lower grade of irritation of the nerve fibers than occurs in neuralgia and is a kind of ghostly simulacrum of that disease. It very often precedes or accompanies attacks of pain."

Church and Peterson: "Schultze first, in 1890, used the term acroparesthesia to describe a condition which had previously been fully recognized by Nothnagel, Bernhardt, Putnam and others. It occurs generally after middle life in hardworking women who have the hands constantly wet, as in washing and scrubbing. The paresthetic feeling is usually a tingling, crawling or burning sensation, sometimes attended by decided pain and most marked night and morning and in winter. The hands are usually alone affected, but the feet may participate. The fingers may be rendered clumsy and awkward. The color of the skin is usually natural, but may be pale, whitened or reddened. Sensibility is commonly objectively normal, but hyperesthesia and hypoaesthesia have been observed. Arteries, veins and nerves are normal. There is no atrophy of the muscles or integument, but occasionally a com-

plaint of weakness. The disorder is not serious, but tends to chronicity and may last for several years. — — — The paresthesia is never limited to the distribution of a given nerve, but usually affects all the digits about equally, may extend to the elbows, or even to the shoulders, and is bilateral, as a general rule. The feet are also affected, but less frequently and less severely."

I am sure there is just ground for Dana's opening remark, here quoted. The "paresthetic neurosis," so-called, is not generally recognized. The fact of a paresthetic tendency, which may result in pronounced and persisting paresthesia in the absence of the Raynaud's syndrome, or of neuritis, or of cerebral or cord disease, or any known pathological change, is frequently overlooked. In neurological practice one finds many interesting cases of paresthesia. If full notes of them were kept, an instructive collection of paresthetic conditions could thus be accumulated. This, however, would mean much labor for the observer and for the reader consume much time and patience.

It has occurred to the writer that, by giving a brief account of a few cases of acroparesthesia, with running comments upon them, the clinical bearings of the subject might, to some extent, be set forth. The cases here cited are not selected ones, but rather chance instances in which sufficient notes were found upon which to base intelligible descriptions.

CASE 1.—Mrs. E. McG., 50 years old; frequently awakened in the early morning (or "towards mornings") with her finger-tips on both hands numb and tingling. Sometimes the paresthesia runs up as high as the shoulders. By lively movements of the arms and rubbing of the hands it gradually passes away; sometimes, however, not for several hours. And sometimes it has a tendency to recur all day. It is sometimes quite uncomfortable "like the hand going to sleep," but never painful. She first experienced it five to seven years ago. (It came on so gradually she cannot be quite positive). Sometimes she is free from it for weeks or months and then, with no known provocation, it returns again for a variable time.

She has frequently had a paresthesia on the right side of her head, about the ear and neck, which at times almost amounts to pain. For years past she tried to find out from numerous doctors the cause of it and a remedy. Some of her joints have a gouty appearance. At present the distal joints of both index fingers are deformed and swollen and quite tender, and the left knee is slightly puffed and tender and stiff. She cannot read or sew very long without a frontal pain following. She was sent to us from the oculists with the simple statement that the discs have a pale appearance.

She has not menstruated for several years. Fourteen years ago she had for many months a "gouty stomach," at least she had a poor appetite and all kinds of foods disagreed with her until she was thin and very miserable. This finally disappeared spontaneously and for years past she has felt no suggestion of it, but now looks well-nourished and strong and is more fleshy than she has ever been. She used to have severe headaches (typical migraine) which have also disappeared in recent years.

Except the gouty lesions, no evidence of organic disease can be found in any portion of her organism. Even the arteries and the heart seem in a very fair condition.

This is a quite typical case of acroparesthesia, conforming in all particulars to the usual descriptions, i. e., it has occurred in an oldish woman of the working class and of the gouty or lithemic type and has the classical distribution and periodicity.

It is interesting to note the presence of other paresthesiæ and the fact of typical migraine in earlier life, showing a neuropathic predisposition and associated with the abundant evidence of a lithemic diathesis.

CASE 2.—Mrs. W. H. C., 52 years old. From May 2nd.

to June 1st. I saw her four times. The symptom of which she complained most was a paresthesia, "a sensation like the hands and arms and feet going to sleep." This was more apt to come early in the morning, but in recent years it would come at any time during the day, especially after sitting still for a good while. Since she was about 40 years of age she had noticed this numbing tendency frequently. Gradually it got to be a thing of quite regular and frequent occurrence and within the past year coming in very troublesome attacks. She described them as beginning in a gentle, gradual manner as a slight numbness and tingling. Within about half an hour the paroxysm was in full cry, so to speak, and then it was very distressing; some kind of distress and nervousness attending it which she could not describe but which was almost insupportable, at times driving her to tears. When it subsided there was great relief "like the removal of a heavy strain." There was no coldness in the fingers or other objective signs, simply the numb, stiff, clumsy feeling. She had a good deal of pain and heaviness in the back of her head, suffered much from insomnia, from occasional periods of anorexia and "biliousness," and of late from much mental depression and despondency, which was always worse in the morning. She believed that all these latter symptoms had their origin in the tormenting paresthesia. The attacks had only reached their present severity within the last few months.

Mrs. C. is the wife of a prosperous farmer. She is bright and intelligent, hardly showing her years and will not confess that she has been of an anxious or worrying temperament. Her hands show no evidence of labor, but look well kept. She gives a history of well-marked migraine in former years which has now about left her. She has also had occasional severe attacks of spasmodic asthma. There is at present a very pronounced "lithemic" tenderness of the clavicles and shins. Her heart is good. The urine is of good specific gravity and contains no sugar, albumin or casts. There are no discoverable signs of arteriocalillary or atheromatous degeneration of the cerebral arteries. She passed the menopause six years ago.

I have seen cases of "agitative melancholia" and "hypochondriacal melancholia" in which, among the first important symptoms to reach our notice, were the vivid recurrences (at more or less regular and distant intervals) of a paresthesia; a paresthesia of some kind, somewhere about the body, recurring and bringing with it an accompaniment of mental distress. Sometimes, under these circumstances, the paresthesia is associated with the violent muscular agitation which characterizes some of these cases. In some cases the hypochondriacal delusions seem to originate in and systematize themselves about the paresthesia.

This patient was very loth to admit any despondent feelings, but when I had a separate interview with her she broke down in tears and told me she had been secretly fighting the "bluest kind of blues," without the members of her family realizing it, for almost a year, and her constant dread was that she would lose control of herself.

CASE 3.—Mrs. M. S., 51 years old, has been under my observation for the past ten years with recurring paresthesia in the extremities. When I first saw her, she had been troubled for some months with slight tingling at the tips of the fingers. Sometimes they did not tingle but simply felt numb and clumsy. At first she thought little of it, but its persistency drove her to a physician. He heard her story, examined her hands and seemed puzzled. She asked him if there was "danger of paralysis." He said he didn't know. She then became alarmed and in this state of mind came to me. When the nature of her malady was explained, she was greatly relieved and improved rapidly. However, some of this old anxiety has always overtaken her when the paroxysms were worse.

My record shows that she visited me in 1891: August 7, 18, 28; September 7, 11, 12; October 30; November 1, 24. In 1892, August 16; September 14. In 1894, June 18. In 1897, June 6; July 7. In 1899, August 9. In 1901, April 29.

These dates indicate fairly well the recurrence of the paresthesia, at least the worse attacks of it. In 1897 she first noticed the paresthesia in her feet. In August, 1899, in addition to the return of the paresthesia in all members, she had a good deal of vertigo and was alarmed about it.

The paresthesia was always a tingling and numb feeling. It was seldom intense, but for weeks at a time would be

present almost constantly, with a tendency to daily or nightly exacerbations.

I saw her last in April, 1901. She complained that the paresthesia had changed to a burning sensation, which was at times quite intense in the palms and soles and often reached to the elbows and knees. There was also a "hot spot" on the top of her head. She said that of late the right knee was somewhat painful, swollen and stiff for several days at a time. She furthermore stated that for the past year or more the attacks of paresthesia had been accompanied by an unaccountable depression of mind. When free from the paresthesia her spirits were as good as they ever had been, but as soon as it appeared the blues came with it. She thought this the more strange in that she no longer worried about the numbness, etc., as she once did. She seemed to accept the explanation which I made to her that the mental depression and paresthesia had a common cause in her physical condition. But her mental torture had evidently been so great on some occasions that she feared mental disease and in confessing this to me and telling me of the fight she had with herself in recent months she became quite emotional.

Mrs. S. is a Jewess, living in a country town, in good circumstances and comfortable surroundings. She is very industrious in household matters and, besides, has frequently taken a hand in the merchandise store of her husband. Her hands have not the appearance of hard usage, but are soft and well kept. Her heart, arteries and kidneys, as well as all other organs and functions, seem to be in good condition and, excepting the symptoms above recounted, she considers herself a very healthy person. She is quite neurotic, however, and belongs to a distinctly neuropathic and intelligent family.

CASE 4.—L. H., male, 26 years old. He is often awakened with a morning paresthesia; a numb feeling and frequently a coolness in the extremities, "like cold water had been injected into all the veins." Sometimes it is confined to the finger-tips; generally, however, it runs well up the extremities. The feet are not so often attacked as the hands and are never attacked independently of the hands. At least he cannot remember having had paresthesia in the feet alone. He is seldom annoyed with it except when awakening in the morning—generally early. Occasionally he has noticed a tendency for it to return or persist somewhat during the day. A vigorous rubbing and exercise usually drives it away.

This man is a neurasthenic of the lithemic type. When from overwork or dissipation of any kind he falls into a neurasthenic condition is he apt to have paresthesia and neurasthenic pains all over his body. At these times he has large scotomata and flashes of light and tinnitus, neurasthenic bladder and bowel crises and heart storms. He becomes anxious and alarmed, fearing serious illness. But it is a remarkable fact that he has never had this anxiety about the acroparesthesia, which never seems to appear in its most pronounced condition when he is in his worst neurasthenic states. It was only after he had visited me a second time that he mentioned it and then not with the emphasis which he puts into the descriptions of his other various sensory complaints. One physician whom he had consulted mistook the acroparesthesia for hysterical anesthesia. This type of neurasthenics, who are subject to exacerbations characterized by morbid fears and hypochondriacal ideas with various sensory and motor paresthesiæ, is frequently mistaken for hysterical subjects although they may have none of the essentially hysterical features about them. Hence it is not remarkable that a physician, preoccupied with the idea of hysteria in the case and hearing the patient's account of a sensory phenomenon as pronounced as this paresthesia, should somewhat carelessly call it hysterical anesthesia. Several instances of a similar mistake have come under my observation.

CASE 5.—Miss Mary S., 25 years old. For about three years past she has had almost daily paroxysms of wave-like paresthesia, which, starting in the hands, and less frequently in the feet, ascend the extremities, sometimes including only the distal segments, sometimes reaching quite to the trunk. At first the paresthesia was confined to the upper extremities, but now all four extremities are generally simultaneously attacked. Sometimes these waves are sudden, electric-like and shocking, making the extremities fairly ache and feel afterward weak and nervous. The paroxysms may

come at any time, day or night, but most frequently in the morning. The number and severity of them always increase at the time of menstruation, which latter is always attended with abdominal pain for a day or so. The paresthesia has been worse in the past year.

She cannot assign any especial cause, exciting or otherwise, for the malady. She was reared and has lived almost solely in the country, has a robust appearance and seems to be of a cheerful and hopeful temperament. She has had a good deal of "nervous headache" and one or two attacks of well-defined migraine every year since she was a small girl. The left knee is at present puffed from a gouty swelling of a rather quiet nature. It has been in a similar condition at other times, and to the extent of making her limp within the past year. She has had occasional spells of aching in other large joints, but nothing very pronounced.

Besides the acroparesthesia this patient presents gouty symptoms and gives the history of a typical migraine. Her country life and a very simple and sensible way of living (as I found out by carefully questioning her) were not sufficient to overcome a strong hereditary trait. I have had this young lady's sister (a kindergarten teacher) under my care for attacks of a classical lithemic neurasthenia. From the daughter's accounts their mother was a pronounced example of the same type.

A close study of paresthesiæ of all kinds shows their relation to the neuropathic predisposition, and, as a rule, we find them the most pronounced and emphatic when this tendency is the greatest. The lithemic tendency also contributes to their appearance. But in this latter remark we may be only repeating ourselves, for we do not know the relation of the lithemic to the neuropathic tendency, except that they are so frequently associated with each other. Which is the leader in mischief-making we may often puzzle our minds to determine. This brief series of cases shows combination of lithemic and neuropathic.

In cases IV and V, I believe a decided neuropathic tendency accounts for the development early in life of a form of paresthesia which generally only shows later, when there are added factors to call it forth. What these added factors may be, we shall not too promptly conjecture, seeing that, as the organism reaches middle life, changes are appearing to furnish food for unbounded speculations—chemical, trophic, mechanical—which we may not at this time indulge in. Practically we know nothing about the pathology of acroparesthesia. But, for that matter, we know nothing about the pathogeny of Raynaud's disease or of erythromelalgia, although they are both accompanied with very evident pathological changes in the affected members. I mention these two conditions in this connection, because often their earliest symptom is an acroparesthesia (i. e., a paresthesia of the most distant part of the members, as the prefix *acro* indicates). Raynaud's disease affects the hands most often, and I have seen cases in which I never decided between Raynaud's and a simple symmetrical paresthesia (unusually pronounced at the finger-tips), for the reason that I had not the opportunity of studying these cases often or long enough to make sure of it. Usually the history of a case of acroparesthesia reveals its nature, and if this is studied, it will finally not be confused with Raynaud's disease, neuritis, myelitis or hysteria.

In case II we find involved the very interesting problem of the relationship of bodily and mental pain. Her clinical history more in detail than here presented shows the very gradual transition from a

paresthesia, at first slight and not painful, to one which became painful and finally associated with a most painful mental state. Touching upon this problem, Clouston, many years ago, wrote as follows:

"Such a clinical connection of bodily and mental pain-symptoms, as existed in this case, is far too frequent to be a coincidence of unrelated phenomena. They both form part of one disease, in my opinion, a disease of the brain cortex, with sensory, trophic, motor, vasomotor and mental symptoms, the sensory and the mental being essentially bound up with the trophic, but the motor and the vasomotor being secondary. Looking on the sensory function of the brain cortex as being, from the evolutionary point of view, an earlier development than the mental, and as being on a lower plane and of lesser importance, teleologically, as it were, I regard such a case as an example of the lower function being first affected by a disease, which, not being arrested in that lower plane of nerve-action, passed gradually up into a higher region of the cortex, that of mentalisation."

The remarks concerning case II may, in a measure, be applied to case III, as there is considerable similarity in their histories. There is, however, an important difference, not entirely shown in the brief history here given, in that case III is an individual of the so-called mobile nervous temperament. In these persons various neurotic phenomena are not necessarily to be regarded with the same anxiety that they occasion when found in individuals of a more stable nervous cast. And, by the way, it is one of the refinements of the neurologist's art to make this distinction, i. e., to calculate the value of symptoms in the most neurotic classes of patients.

Since writing the above I notice references to a recent article on the same subject by Dr. Jos. Collins, of New York (*N. Y. Med. Rec.*, May 31, 1902). He gives the statistics of some one hundred cases observed by him in the past five years. As yet I have not had the pleasure of reading Dr. Collins' paper, but I am sure it is a valuable contribution to a subject which is profitable and at the same time very interesting and pleasant to study.

TENT LIFE IN ARIZONA IN THE TREATMENT OF TUBERCULOSIS.

By HENRY H. STONE, M. D.,
of Phoenix, Ariz.

This abbreviated article deals with nothing new in the treatment of tuberculosis, but is intended to call attention to the superior advantages Arizona possesses over most climates when we consider the out-of-door treatment of this twentieth century scourge, for without the continuous inhalation of good pure air combined with constant sun-rays we cannot hope to cope successfully in securing cures.

The importance of climate cannot be overestimated, notwithstanding the fact that some writers would have us believe otherwise, for frequent cures are too common, due entirely to change of climate, to be overlooked and attributable to anything else but change of residence. Facts are stubborn things and, like that famous ghost of old, "will not down." Possibly the reason for many observers not placing more importance on climatic treatment has been the indiscriminate sending of patients to climates

unsuitable to that particular type. We may reasonably hope, as climatic conditions are better understood and the type or stage of the case to be sent has been classified, and climates suitable for that particular stage and type have been selected, then and not until then can the climatic treatment of tuberculosis be successfully carried out and receive its share of credit.

Thirty years ago Minnesota was the western elysium to which many phthisical cases resorted. With its steady cold winters and bracing air it had many cures to its credit; but it was found that still further west and south there were climates more suitable to a greater number of phthisical cases, because they had fewer objections. Then it was that Colorado and California came to the front. They also had their objections in high winds and severe changes. Now we have Arizona and New Mexico, which are claiming the attention of the profession throughout the globe, and possibly rightfully, too, for their climate seems to have fewer objections than most of the others. The arid regions of these territories possess qualities for which the physician, in the light of present knowledge, has been seeking for years, viz., a mild dry climate where a *continuous* out-of-door treatment can be carried on; a *maximum amount of sunshine* and only light breezes with slight variations in temperature.

The following figures from the United States Weather Bureau Records, taken the last three winters, from October to May inclusive, from the Phoenix station, show as follows:

Highest number of cloudy days in any one year,	22
Highest average temperature in any one month,	69
Lowest average temperature in any one month,	50
Rainfall for entire year,	6.2 inches
Wind velocity,	4.4 miles per hour
Altitude,	1120 feet

A glance at the above and we can see how readily one can live out of doors the entire year. We not only need oxygen all day, but we need it just as much all night, and here is where the tent life and climate combined make for good. The mere fact of sending a patient to a suitable climate and giving him that old stereotyped advice: "Go to Arizona; live in the open air; take plenty of exercise and get well," will not do for a minute. Our patients must have a good fighting chance of recovery before they should be sent away from their homes. The severing of home ties hurries many a patient to the undertaker who might otherwise live at home and, being supplied with home comforts, live a much longer period. Again, it is not enough simply to send him to Arizona, for here we have as many altitudes as we have counties, from an altitude, at and about Flagstaff, of some 8000 feet to sea level about Yuma.

I am in this brief paper confining my records to the Salt River Valley in and around Phoenix.

If, then, a patient is to be sent to Phoenix, and you have decided that tent life is the thing for him, what then? If he cannot afford treatment in a sanatorium (which, if he can, is the thing par excellence), then do the next best thing. Have him purchase a tent or tents; go out not so far from the city but that he can avail himself of its accommodations, and secure a location and pitch it. The style of tent is

largely a matter of taste; suffice it to say that it should be large enough for four men in order to accommodate one tubercular case. I am partial to the tepee tent with its opening at the top supplied with a hood to be drawn in case of rain. If you want something more elaborate, then a house tent, such as are here made, with first a floor, then walled up with boards four feet and tent over all. They are very comfortable and have house doors and windows. All of this is a matter of detail, to be looked after according to the taste, always remembering that nothing about a tent should be so closed that there is not plenty of fresh circulating air without draughts.

The physician who comes in daily contact with phthisical patients, living or not living in tents, would at once tell you, if asked, that, if he could do it, he would have every one of them in tents for the best of reasons, viz., they improve, and faster than those who live in rented rooms. Once you can get a patient to adopt tent life, there is no trouble about keeping them at it, for the reasons are obvious.

Undoubtedly it is so, that one of the possible advantages in the cottage plan of treatment in sanatoria is in no small measure due to the fact that their rooms are at all times bombarded with fresh circulating air. If this is true in four-room cottages, how much more is it so in tents? This is not an article upon tents, but only a short reminder that since the profession recognizes the absolute necessity of continuous out-of-door life, then Arizona and tent life are factors we cannot overlook.

LITTORAL CALIFORNIA.

By WILLIAM A. EDWARDS, M. D.,

of Coronado, Cal.

Fellow of the College of Physicians of Philadelphia and Physician to the Coronado, California, Hospital.

(Continued from page 517).

Newcomers are often bewildered by the many varieties of climate and make statements to far-away friends that add chaos to confusion in the minds of eastern people. One traveler reports California all sunshine and flowers, another all fog and cold. Some complain of the dry desert winds with their exciting electrical conditions, while others dwell upon the excessive humidity, when the probable truth is that the critic has not selected the proper environment and has passed by what he is seeking, which is no doubt within a few short miles.

There is little seasonal change in the extreme southern part of the State. I am accustomed to say to inquirers that our winters resemble September and October in the middle Atlantic States and that our summers are like April and May in the same region. The dividing line between summer and winter is more imaginary than real.

The greatest change in temperature occurs at night, more marked in the interior than on the coast. Solly says that it is a point worth noting that, even when the atmosphere has been fairly dry from 11 A. M. to 5 P. M., it is always damp at night. This

he has noted at Redlands, one of the most favorably situated of the inland towns.

I wish to call particular attention to the apparent difference between sunshine and shade and midday and midnight. This change is more a subjective sensation than a reality and is true of all semitropical localities. It is less marked in California than in Italy, but it always appeals strongly to the newcomer, who is surprised at the immediate sense of chill when he enters the shade from the direct rays of the sun.

As the night advances, the temperature decreases, and while this change may not cause the mercury to fall many degrees, still it is very noticeable to the individual. This is less marked on the coast in summer and more so at all seasons in the interior.

The weather records, says Solly (page 313), "are not so complete for the night as for the day, but they are sufficiently so to establish the fact that, in spite of the great amount of sunshine during the day in California, the foggy and damp nights and mornings take up a great part of the twenty-four hours, so that in California, as in the Riviera, the night air is usually damp and frequently saturated with fog."

This same writer continues to say that to those, to whom the presence of dry air is not important, California offers many attractions from Monterey to Coronado, and he concludes that it can be said that the coast climate is delightful, equable and healthful.

The days are characterized by a constant sea breeze which blows with astonishing regularity; it is rarely too warm for comfort, like the days at Cape May, Atlantic City, Long Branch or other popular Atlantic coast resorts. Several times during the year the so-called desert spells occur. This is when the land breeze or wind from the desert, many miles in the interior, gains ascendancy over the prevailing western or ocean breeze. During this time the thermometer is apt to show a very high registration. Under these conditions I have seen it at San Diego register 98° F., for only a few hours, however, and in the interior reach 110° or 112° F.

The "desert wind" lasts usually only two or three days, but it is extremely disagreeable and exciting, owing to its absolute dryness and peculiar electrical conditions. The nights during this unusual rise in temperature are always cool and pleasant; one never experiences the sleepless, tossing nights of the humid east. These are the only evenings on the coast upon which one may sit out of doors with entire comfort and without sensation of chill; this evening chill is one of the peculiarities of our climate and is somewhat disappointing to the newcomer.

With this rather brief outline of the main geographical and climatic peculiarities of Littoral California let us, again briefly, consider the class of patients who will probably be benefited by a residence in this locality. When the existence of phthisis is recognized early and the patient is immediately sent to a proper climate, I see often most remarkable restorations to health; a class of people who will derive much benefit here are those in whom it is impossible to demonstrate the existence of actual

disease of the lung (latent and larval tuberculosis), but who are weak, ill-nourished, take cold easily, are subject to attacks of winter cough and bronchitis and whose family-history points strongly to the ultimate consumptive breakdown. These and the early or incipient consumptive should come prepared to remain at least two years—five would be better—and they must be able to procure everything that aids in the promotion and maintenance of the general health. It is madness to come to California in search of health without ample means to supply all comforts and luxuries.

There is usually an early gain in weight and an amelioration of all symptoms; however, if this gain does not at once occur one must not conclude that one is immediately to change location and seek a new climate. Nor is one to sit down in a porch rocker on reaching the selected locality and wait for a miraculous climatic cure. Here, as in all other relations in life, little is to be gained without labor. The climate unaided will produce little, if any benefit at all.

The only aids which in my hands have produced happy results in restoring health are good food and

out-of-door life; I do not mean by this a few hours in an easy-chair on the porch, but an out-of-door existence, in many cases for the entire twenty-four hours. Those who come early enough, remain long enough and lead this life, are almost certain to find what they seek. I have records of too many cases of complete and partial recovery under these circumstances, not to speak very positively on the matter and to feel absolutely sure of my statements. Many of these health-seekers have become my intimate personal friends, whom I see day by day and whose maladies are cured, arrested or quiescent.

It is, of course, understood that we consider the coast of California suitable for only a minority of tubercular cases; the majority will do best in cool, high, dry climates, but to those, to whom a fairly warm, moist climate is suitable, the improvement here will be marked, continuous and satisfactory. I wish, however, to say that I fully endorse the statement of Solly, "The majority of consumptives do better, other things being equal, the further they are removed from the sea, and that they do better in high than in low altitudes, wherever situated."

Scrofulous affections, enlarged glands, the soft,

CLIMATOLOGY OF SAN DIEGO, CALIFORNIA.
By FORD A. CARPENTER, Observer, Weather Bureau.

Monthly mean temperatures for a period of fifty-two years.

Year.	January	February	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Annual
852	53.1	55.9	55.0	57.6	61.2	67.1	73.2	72.5	73.6	65.0	57.3	51.9	62.0
853	53.8	53.0	57.7	62.6	63.3	68.4	72.8	72.9	70.7	68.8	60.4	56.2	63.4
854	54.2	55.0	56.4	63.3	60.7	64.1	73.1	72.1	66.7	64.0	58.7	55.5	62.0
855	52.6	56.2	58.4	62.3	64.0	68.8	70.9	72.0	68.3	66.6	56.4	52.4	62.4
856	51.0	53.5	56.2	60.0	61.0	68.6	72.3	72.5	68.8	61.6	56.2	50.0	61.0
857	52.4	53.6	58.8	62.6	64.4	69.1	67.3	72.8	68.4	63.9	57.2	51.8	61.9
858	51.2	56.0	55.1	57.8	62.8	66.5	69.2	69.8	69.6	63.5	58.6	53.1	61.1
859	54.5	54.8	55.3	56.2	60.1	67.0	69.7	68.4	66.6	65.1	60.1	55.3	61.1
860	51.4	53.9	59.0	60.4	61.9	64.5	68.8	70.8	69.1	63.6	56.9	55.2	61.3
861	51.4	56.5	57.7	63.8	65.7	67.6	73.1	72.3	69.3	64.6	59.8	58.1	63.3
862	55.6	51.8	56.8	59.4	62.7	68.2	71.2	72.9	69.4	65.8	60.4	55.4	62.5
863	52.8	52.8	59.9	61.0	62.6	64.6	68.0	68.1	68.9	65.7	59.0	55.8	61.6
864	56.0	56.2	58.5	61.8	65.2	69.0	69.7	75.1	69.2	64.6	59.1	56.5	63.4
865	55.6	54.7	57.8	59.8	64.3	65.7	67.7	71.8	68.2	65.2	62.1	52.2	62.1
866	54.5	57.0	57.9	62.7	60.5	66.6	69.7	73.1	69.6	65.0	60.4	58.6	63.0
867	55.2	58.2	55.4	61.7	63.6	69.1	70.5	74.5	71.7	64.0	63.2	63.3	63.8
868	54.5	56.5	57.4	61.3	62.3	65.7	69.4	74.1	72.2	66.1	62.1	55.4	63.1
869	56.6	55.6	59.8	62.1	62.2	64.4	68.8	70.3	68.3	66.3	61.1	50.6	62.2
870	55.6	57.5	56.3	58.8	61.4	64.6	68.3	70.5	66.9	63.6	59.4	51.4	61.2
871	53.5	52.2	56.7	57.7	63.6	65.1	71.4	72.1	68.3	65.6	58.3	56.8	61.8
872	52.7	55.2	56.4	56.0	60.4	64.9	66.6	68.9	66.0	62.5	59.4	55.4	60.4
873	56.7	53.3	56.7	58.0	60.0	62.7	67.0	69.0	67.7	62.0	60.3	54.3	60.0
874	54.7	52.6	52.6	56.2	60.5	63.2	68.3	68.1	65.7	63.2	56.7	53.3	59.6
875	53.4	54.6	55.0	57.8	62.6	64.6	68.3	71.2	67.7	67.2	60.3	56.9	61.6
876	51.9	55.9	54.9	59.0	60.9	65.2	68.3	68.8	66.3	64.6	59.4	56.8	61.0
877	57.4	57.9	58.9	58.3	60.3	66.3	68.4	68.4	68.0	63.9	60.6	56.8	62.1
878	55.6	56.0	56.7	58.1	61.5	64.1	66.8	68.3	67.3	62.0	57.5	53.5	60.6
879	52.3	54.8	57.9	53.1	60.1	64.1	65.7	68.6	66.6	62.6	56.2	53.9	60.1
880	52.5	50.8	52.1	56.5	60.6	63.0	63.4	65.8	63.1	61.2	56.2	56.9	58.5
881	52.8	55.7	54.3	60.8	62.3	64.1	67.2	68.2	66.7	61.5	56.8	55.0	60.4
882	50.4	51.2	55.1	56.6	61.9	64.3	66.7	70.2	66.8	62.0	57.0	55.7	59.8
883	53.4	53.9	57.4	57.4	60.6	66.6	68.7	68.9	69.7	61.7	58.7	57.5	61.2
884	55.0	55.9	56.5	57.6	61.4	64.4	68.4	69.5	65.1	61.3	58.6	54.4	60.7
885	54.0	55.4	59.6	62.0	63.3	64.3	67.6	71.8	68.0	63.9	59.6	57.1	62.2
886	55.9	58.5	55.0	57.2	60.4	63.1	67.1	70.5	66.6	59.7	56.0	56.0	60.5
887	54.3	52.9	57.2	59.0	62.1	64.6	66.5	66.2	65.7	64.5	59.2	54.6	60.6
888	51.6	54.9	55.8	60.8	61.2	66.0	68.4	69.2	69.7	65.0	59.9	58.2	61.7
889	54.8	58.0	59.2	60.4	60.8	64.0	67.6	70.8	70.2	65.4	62.0	57.4	62.6
890	51.0	54.3	56.4	58.6	60.4	64.1	68.5	69.8	69.1	64.6	63.8	60.8	61.8
891	54.6	53.3	56.9	58.2	60.8	65.6	69.9	72.4	70.2	63.8	59.2	61.5	62.0
892	55.1	55.0	56.0	57.8	61.0	62.0	64.9	67.8	65.4	62.7	60.9	54.2	60.2
893	57.4	54.4	54.2	57.5	61.0	63.4	67.4	70.0	64.6	62.7	57.6	57.4	60.6
894	49.5	50.5	52.6	56.4	58.6	61.4	64.8	67.0	65.9	62.8	57.1	54.8	58.4
895	53.2	55.8	55.4	57.8	61.9	65.0	65.6	61.7	67.4	64.4	59.4	55.0	60.5
896	55.5	57.7	58.2	56.5	62.0	64.8	68.6	69.4	66.7	64.2	59.7	59.0	61.9
897	55.8	54.7	54.2	59.8	60.9	63.4	67.0	69.9	68.1	62.4	60.2	55.0	61.0
898	50.8	55.2	54.5	59.1	58.8	63.8	66.7	70.6	68.5	62.3	59.4	56.6	60.5
899	55.5	53.4	56.4	58.2	57.7	61.4	65.6	65.8	65.5	62.7	60.8	58.7	60.1
900	57.8	57.6	59.2	56.8	60.9	64.4	67.6	66.2	65.6	63.1	64.6	60.4	62.0
901	56.2	57.5	60.0	57.4	60.0	62.5	65.6	68.2	64.8	62.8	60.8	57.8	61.2
902	56.4	54.8	54.8	57.2	60.2	62.2							
Mean	53.9	54.8	56.5	59.1	61.5	65.1	68.4	70.0	67.9	63.9	59.2	55.7	61.3

Monthly, seasonal and annual precipitation at San Diego, California.

YEAR.	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Annual	Season of	Season
1850	0.00	1.13	1.00	0.09	0.00	0.68	0.00	0.00	0.00	0.19	2.82	1.93	7.84	1849-50	8.41
1851	0.03	1.51	0.34	0.87	0.71	0.01	0.00	0.00	0.02	0.01	0.25	3.74	7.49	1850-51	9.88
1852	0.58	1.84	1.87	0.85	0.32	0.00	0.00	0.40	0.00	0.06	1.45	4.50	11.87	1851-52	10.85
1853	0.50	0.20	1.52	0.25	2.10	0.05	0.00	0.21	0.00	1.28	1.77	7.88	1852-53	10.99	12.17
1854	0.99	2.56	1.88	0.89	0.18	0.01	0.07	1.36	0.09	0.27	0.04	3.29	11.63	1853-54	9.85
1855	1.97	3.59	1.30	1.52	0.06	0.00	0.00	0.04	0.00	0.11	2.15	0.41	11.15	1854-55	7.56
1856	1.27	1.86	1.59	2.17	0.29	0.00	0.00	0.00	0.07	0.00	1.22	1.30	9.77	1855-56	6.59
1857	0.26	1.76	0.00	0.04	0.09	0.03	0.00	0.02	0.01	0.49	2.16	1.30	6.15	1856-57	7.76
1858	1.52	0.44	1.24	0.17	0.00	0.19	0.00	0.04	0.10	0.47	0.28	3.10	7.55	1857-58	6.70
1859	0.00	1.89	0.20	0.36	0.17	0.00	0.02	0.00	0.00	0.18	1.49	1.79	6.10	1858-59	7.76
1860	0.72	1.49	0.15	0.65	0.04	0.05	0.14	0.00	0.00	2.88	2.99	9.11	1859-60	15.75	3.76
1861	0.82	0.79	0.05	0.04	0.00	0.19	0.00	0.00	1.59	0.05	1.19	3.20	7.92	1860-61	5.25
1862	5.56	1.39	0.97	1.05	0.16	0.48	0.11	0.00	0.00	0.89	0.05	0.93	11.59	1861-62	9.63
1863	0.32	1.09	0.32	0.13	0.02	0.00	0.00	0.00	0.36	0.00	0.73	0.04	3.02	1862-63	11.63
1864	0.04	2.50	0.20	0.01	1.25	0.01	0.11	0.00	0.00	0.04	2.41	1.04	7.61	1863-64	13.93
1865	1.28	3.00	0.00	0.56	0.00	0.07	1.29	0.00	0.00	0.02	0.52	0.84	7.52	1864-65	11.44
1866	5.05	3.43	1.47	0.11	0.09	0.00	0.00	0.10	0.00	0.00	0.24	1.82	12.31	1865-66	11.22
1867	2.32	0.85	7.88	0.48	0.04	0.00	0.00	0.30	0.00	0.34	0.45	3.06	15.72	1866-67	5.54
1868	3.37	1.63	0.73	1.20	0.15	0.00	0.51	0.00	0.05	0.00	2.00	1.52	11.16	1867-68	5.06
1869	2.88	1.88	1.98	0.53	0.33	0.00	0.05	0.00	0.00	0.05	2.32	0.94	10.96	1868-69	7.36
1870	0.54	0.77	0.33	0.20	0.28	0.00	0.04	0.07	0.00	1.54	0.18	0.42	4.37	1869-70	8.18
1871	0.52	1.35	0.01	0.70	0.34	0.00	0.00	0.00	0.00	0.00	1.33	1.39	5.64	1870-71	15.07
1872	0.99	2.63	0.46	0.26	0.12	0.00	0.00	0.18	0.00	0.00	0.00	1.40	6.04	1871-72	10.91
1873	0.44	4.15	0.11	0.10	0.03	0.00	0.00	1.95	0.00	0.00	0.77	5.46	13.01	1872-73	15.07
1874	3.11	3.73	1.20	0.34	0.34	0.00	0.12	0.00	0.11	0.53	0.88	0.55	10.91	1873-74	5.82
1875	2.38	0.37	0.45	0.12	0.20	0.02	0.00	0.21	0.39	0.00	2.25	0.41	6.80	1874-75	9.99
1876	2.47	2.44	1.78	0.06	0.05	0.05	0.03	0.06	0.03	0.08	0.04	0.15	7.24	1875-76	3.66
1877	1.05	0.18	1.44	0.26	0.43	0.00	0.00	0.00	0.00	0.81	0.06	3.89	8.12	1876-77	16.10
1878	1.45	4.83	1.41	2.91	0.58	0.16	0.00	0.00	0.00	0.96	0.00	1.57	13.87	1877-78	7.88
1879	3.54	1.04	0.10	0.60	T	0.07	0.00	0.00	0.00	0.29	2.77	6.30	14.71	1878-79	14.77
1880	0.61	1.50	1.43	1.34	0.06	0.06	0.09	0.32	0.00	0.53	0.28	4.15	10.37	1879-80	9.26
1881	0.52	0.55	1.88	1.35	0.04	0.05	0.00	0.01	0.04	0.24	0.12	0.30	5.00	1880-81	4.92
1882	4.53	2.55	1.02	0.45	0.18	0.07	0.00	T	0.01	0.41	0.39	0.13	9.74	1881-82	25.97
1883	1.09	0.95	0.41	0.31	1.14	0.08	0.00	0.00	0.00	2.01	0.20	1.82	8.01	1882-83	8.80
1884	1.34	9.05	6.23	2.84	2.17	0.31	0.00	T	0.07	0.35	0.11	5.12	27.59	1883-84	16.83
1885	0.35	0.02	0.78	1.20	0.61	0.06	T	0.13	T	0.31	1.56	0.71	5.73	1884-85	8.33
1886	6.95	1.51	3.73	1.95	0.04	0.07	T	T	0.00	0.05	0.95	0.10	15.35	1885-86	9.82
1887	0.04	4.51	0.02	2.14	0.47	0.04	0.01	T	T	2.08	1.14	10.45	1886-87	11.05	14.98
1888	1.96	1.48	2.79	0.10	0.22	0.04	0.01	T	0.04	0.26	1.83	2.84	11.57	1887-88	10.47
1889	1.72	1.80	2.20	0.19	0.03	0.10	T	0.04	T	2.12	0.12	7.71	16.03	1888-89	8.65
1890	2.79	1.70	0.41	0.05	0.08	0.00	0.00	T	0.65	0.01	0.72	1.61	8.02	1889-90	9.21
1891	1.21	4.84	0.27	0.76	0.35	0.05	T	0.00	0.08	0.04	T	1.29	8.99	1890-91	5.01
1892	1.58	2.96	0.96	0.41	1.15	0.13	0.00	0.05	T	0.22	0.94	0.69	9.09	1891-92	11.86
1893	0.78	0.47	5.50	0.22	0.39	T	T	0.00	0.00	0.11	0.91	1.91	10.29	1892-93	6.34
1894	0.29	0.49	1.05	0.11	0.09	0.01	0.00	0.04	0.01	T	0.00	2.26	4.35	1893-94	11.66
1895	7.33	0.53	1.43	0.11	0.19	0.00	0.00	0.00	0.01	0.27	1.19	0.27	11.33	1894-95	4.98
1896	1.27	0.02	2.89	0.25	0.03	0.01	T	0.13	T	0.97	0.98	2.18	8.73	1895-96	5.31
1897	3.13	2.72	1.53	0.02	0.12	T	0.01	T	T	1.06	0.02	0.32	8.93	1896-97	10.45
1898	1.71	0.06	0.91	0.22	0.66	0.02	0.00	0.00	0.07	0.00	0.15	0.87	4.67	1897-98	6.22
1899	2.34	0.30	0.85	0.29	0.10	0.27	0.00	0.07	0.00	0.35	0.86	0.65	6.08	1898-99	9.55
1900	0.69	0.03	0.53	1.26	1.45	0.08	0.00	T	T	0.30	1.43	0.00	5.77	1899-00	9.55
1901	2.08	4.77	1.07	0.01	0.77	0.02	T	T	0.06	0.28	0.41	0.02	9.49	1900-01	6.22
1902	1.70	1.57	1.86	0.21	0.06	T								1901-02	9.55
General Average	1.75	1.88	1.37	0.64	0.34	0.07	0.05	0.10	0.07	0.33	0.95	1.96	9.51		

flabby muscles of the strumous individual and the lymphatic or adenoid child receive a marked benefit from long residence on the coast, combined with sea bathing. During a large portion of the year these baths may be taken in the open air directly in the sea or bay, at other times the very pleasant and attractive bath-houses may be resorted to. There is, I think, a general consensus of opinion in regard to the efficacy of a mild, equable seaside resort with outdoor life and sea bathing for the scrofulous and for cases of very early tuberculosis. The sea air itself, independent of the bathing, seems to be curative.

Those affected with tuberculous disease of the bones can live in the open air, even if confined to bed, or to the use of the various surgical appliances for rest of the parts or correction or modification of deformities. The little sufferers from Pott's disease may be carried out of doors on their cots in the early morning and not be brought into the house until afternoon, an inestimable blessing.

Renal disease will be markedly benefited by a residence in this climate; in the *Climatologist*, some years ago, I said that a residence in a suitable locality, while it will not, of course, cure well-marked

kidney disease, will at least prolong life to a degree far beyond the natural expectancy. The constant skin activity, much of which is manifested as insensible perspiration, lowers arterial tension and depletes in a most beneficial manner, relieving the overtaxed renal circulation and the diseased parenchyma. From sea-level to 2000 feet we can promise the patient suffering from chronic renal disorder marked prolongation of life in comparative comfort; and, if the change be made soon enough, when the connective tissue is yet embryonic, it is but reasonable to suppose that, with decreased tension and active skin, freedom from intercurrent renal congestion and a constant outdoor life, the disease may be arrested or removed.

Wilson and Loomis, in their paper read before this Society in 1889, state that there is reason to believe that low temperature, rapid change of temperature and high altitudes are unfavorable, whereas equability and warmth are favorable influences.

Those affected with the various urinary diatheses, so-called, and other troubles of kindred nature will find help in prolonged residence here; cystitis, so often an attendant on advanced years and so apt to be aggravated by damp, changeable weather, will be markedly benefited by the warm, equable coast

Maximum and minimum temperatures for a period of 31 years.

YEAR.	January		February		March		April		May		June		July		August		Sept.		October		Nov.		Dec.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1872.	73	37	68	44	71	44	74	43	83	52	80	55	75	58	86	60	80	54	87	45	81	42	72	40
1873.	75	41	77	37	72	40	82	42	78	52	75	58	77	60	78	63	82	55	76	49	85	49	68	44
1874.	71	42	64	41	63	41	71	43	74	50	76	52	79	59	83	56	78	54	90	46	75	45	82	39
1875.	68	42	70	44	71	39	77	39	82	50	77	53	79	61	83	63	88	57	88	53	78	50	75	38
1876.	65	39	77	39	75	43	87	43	76	50	88	51	78	60	81	60	82	54	80	48	79	43	71	43
1877.	78	42	75	45	70	48	67	44	68	51	94	55	86	59	82	58	91	58	73	47	78	46	78	40
1878.	68	38	69	44	68	42	77	44	73	48	76	51	77	56	80	55	100	53	87	44	77	40	79	35
1879.	76	35	74	38	99	44	82	45	94	47	93	52	75	58	81	54	92	54	92	46	79	43	71	32
1880.	73	32	63	35	69	38	80	42	84	46	73	52	73	54	84	56	82	50	81	48	78	40	77	40
1881.	70	36	82	39	72	40	82	51	72	51	76	53	80	57	82	56	86	52	72	46	76	38	77	40
1882.	64	34	70	37	79	39	70	43	73	48	75	55	78	57	83	62	80	50	81	49	80	42	78	41
1883.	76	32	83	36	71	48	85	42	89	45	84	56	80	59	84	60	101	59	80	48	82	43	78	42
1884.	78	39	79	38	68	43	69	45	72	47	81	50	84	54	92	54	78	51	87	47	74	42	68	36
1885.	68	38	76	40	81	42	83	47	73	52	74	52	82	58	89	62	90	56	88	47	76	42	79	40
1886.	74	35	80	44	68	41	71	45	72	50	75	54	81	57	82	61	78	60	75	47	77	40	76	40
1887.	74	38	76	38	82	44	80	44	79	48	78	54	79	60	77	51	79	58	85	50	82	44	74	40
1888.	64	33	67	42	72	41	93	47	70	52	76	54	77	55	82	57	82	58	80	53	75	46	73	36
1889.	78	36	85	37	80	45	83	47	80	50	72	56	84	59	89	62	91	54	80	52	83	46	69	40
1890.	66	35	77	38	74	41	85	45	75	46	93	51	80	56	89	58	83	60	90	49	91	46	79	47
1891.	76	35	70	34	76	41	77	44	67	53	78	53	88	58	85	60	89	55	84	50	82	44	72	32
1892.	75	38	68	42	73	44	80	41	87	47	75	51	75	57	80	57	80	54	83	46	84	40	71	36
1893.	80	38	75	40	75	40	78	43	88	49	75	53	79	57	81	59	77	53	88	50	83	40	82	38
1894.	69	32	69	34	72	36	83	43	72	45	73	50	77	57	90	55	90	52	87	45	78	45	70	41
1895.	77	36	82	39	74	38	81	44	80	51	77	51	74	57	78	54	90	54	84	54	85	38	79	34
1896.	77	39	83	39	85	41	74	42	98	48	89	54	80	56	88	59	80	54	79	52	76	43	76	46
1897.	73	40	76	38	70	40	88	46	67	50	70	54	79	59	89	60	83	58	76	51	83	45	80	36
1898.	78	36	75	42	77	38	86	45	69	51	88	54	77	60	83	63	91	56	81	51	76	43	79	43
1899.	74	43	76	34	86	44	93	46	66	48	70	55	78	57	76	58	92	55	93	48	81	50	80	46
1900.	79	46	76	45	80	46	67	45	75	49	87	56	84	60	80	59	87	53	72	50	89	51	79	44
1901.	75	40	83	44	82	47	66	46	67	51	86	53	74	57	79	58	72	56	96	51	80	49	76	35
1902.	81	36	71	39	76	43	69	47	78	50	76	52												

Temperature and weather summaries for a period of fifty-two years.

Temperature.	Jan.	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Annual.
Highest monthly mean and year	57.8 1900	58.5 1886	60.0 1901	63.8 1861	65.7 1861	69.1 1857-67	73.2 1852	75.1 1864	73.6 1852	68.8 1853	64.6 1900	63.3 1867	63.8 1867
Lowest monthly mean and year ,	49.5 1895	50.5 1894	52.1 1880	56.0 1872	57.7 2899	61.4 1894-99	63.4 1880	65.8 1880-99	63.1 1880	59.7 1886	56.0 1886	50.0 1856	58.4 1894
Absolute maximum and date	81 4, 1902	85 12, 1889	99 27, 1879	93 12, 1888	98 25, 1896	94 10, 1877	88 25, 1891	92 15, 1884	101 22, 1883	96 21, 1901	91 4, 1890	82 6, 1874	101 Sept. 22, 1883
Absolute minimum and date	32 *31, 1880	34 10-11 '94	38 6, 1880 14, 1898	39 7, 1875	39 7, 1875	50 14, 1884 13, 1894	54 16, 1894	54 29, 1879	50 18, 1882	44 30, 1878	38 8, 1881 24, 1895	32 25, 1879	32 Jan. 31, 1880 Dec. 25, 1879
Greatest daily range	35	37	43	40	36	35	22	28	35	37	34	40	43
Mean daily range	16.9	13.7	14.2	14.2	12.2	12.1	11.6	11.4	13.0	14.1	17.7	16.2	13.9
Mean variability	2.4	2.1	2.3	2.2	1.6	1.6	1.7	1.7	2.0	1.8	2.3	1.9	2.0
Mean of three consecutive warmest days .	65.7	69.2	71.3	74.3	72.1	75.8	78.0	81.1	82.9	79.0	75.6	75.6	82.9
Mean of three consecutive coldest days .	40.2	41.9	44.3	50.5	52.6	55.4	59.5	60.8	57.0	49.8	41.9	42.8	40.2
WEATHER													
Average number of clear days	17	14	11	13	9	8	14	12	16	18	19	17	178
Average number of partly cloudy days .	7	9	10	10	11	13	11	15	11	10	9	10	116
Average number of cloudy days	7	5	10	7	11	9	6	4	3	3	2	4	71
Average number of rainy days	6	8	7	4	3	1	0	0	0	2	3	5	39

* Also 21st, 1883; 7th. 1894.

climate. Insomnia in the young or old will find relief in the same region.

I have elsewhere said that advancing years and old age may be robbed of many concomitant infirmities by residence in this locality; they cannot with impunity change from a low to a high altitude, more particularly if they suffer from chronic pulmonary disease, bronchitis, bronchiectasis, fibroid phthisis or the like. A dilated fatty heart is safer at sea-level. On the whole, a marine climate is preferable for old people and, if it be warm and equable, so much the better.

This country is a veritable paradise for the growing child. There is no period during the entire year when it is necessary to house the little ones. There

are no badly ventilated, overcrowded or overheated rooms. The zymotic diseases are usually not at all prevalent. They are mild, run a very favorable course and are generally followed by complete recovery. The scrofulous child lives under the most favorable conditions to combat the inherited taint.

JOURNAL DES PRATICIENS.

June 21, 1902. (16me. Année, No. 25.)

- Reduplication of the Second Cardiac Sound With Hypertension. P. CUFFER and R. BONNEAU.
- Benzoin, Benzoic Acid and Sodium Benzoate in Disease of the Respiratory Passages. LIEGEOIS.
- The Treatment of the Wet-nurse in Relation to the Health of the Infant. O. MACE.
1.—In many cases of organic heart disease reduplication of the second sound was noted from time to time. This

may be due to cardiac symphysis, respiratory disturbance, mitral stenosis or some obstruction to the pulmonic circulation, with hypertension. As the last is the most frequent cause of this condition, hypotensive treatment is indicated. [M. O.]

2.—Benzoin is a better expectorant than benzoic acid or sodium benzoate. Sodium benzoate Liégeois places second, not considering benzoic acid at all active [M. O.]

3.—Macé advises against giving a wet-nurse any drugs to modify the quality of her milk, stating that alcohol, opium, belladonna, quinine, antipyrine, bismuth, iron, arsenic, salicylates, etc., should not be given, since they are excreted in the milk; but that phosphates, mercury or iodine may be given the nurse in order to affect her milk. The objection to this method is that the quantity of the drug given in this manner remains unknown. [M. O.]

June 28, 1902. (16me. Année, No. 26.)

1. Puerperal Eclampsia. MAYGRIER.

2. Mineral Waters for Cardiac Patients.

HENRI HUCHARD.

3. Little's Disease. MERY.

1.—Maygrier reports a case of puerperal eclampsia treated by venesection, hypodermoclysis, croton oil and chloral enemata. After 12 hours of unconsciousness with convulsions, a normal infant, the first, was born. Anuria and fever followed. The termination of the case is not stated. Maygrier discusses in detail the symptomatology of puerperal eclampsia. [M. O.]

2.—France is filled with mineral springs which may benefit cardiac patients. Huchard describes the cure at Bourbon-Lancy, where rest, baths and the springs, with massage, exercise and diet, are especially indicated for rheumatic valvular heart disease and functional cardiac troubles in young individuals and during the period of hypertension or presclerosis with cardiac excitation, accentuated second sound and polyuria. This treatment is contra-indicated in acute endocarditis, pericarditis and myocarditis, edema, hepatic or pulmonary congestion, thrombosis, aortic dilatation, advanced arteriosclerosis, angina pectoris and aneurysm. [M. O.]

3.—Méry, who showed a case of Little's disease in a child of 5½ years, a congenital condition of spasmodic rigidity especially affecting the legs, states that it must be differentiated from infantile hemiplegia following convulsions or fever. This child was premature and labor had been difficult. The child now walks on the toes. There were no marked cerebral symptoms. It may resemble Potts's disease or paraplegia. The cause of the condition is probably some injury at birth. The treatment consists in massage, active and passive motion, Swedish gymnastics and tenotomy. [M. O.]

July 5, 1902. (16me. Année, No. 27.)

1. Loss of Weight in Tuberculosis.

CHARLES SABOURIN.

2. Three Cases of Glandular Fever.

GRATTERY and MERIGOT DE TREIGNY.

3. Opening the Spinal Canal.

JUST LUCAS-CHAMPIONNIERE.

1.—Good food and a good assimilation form the key to the cure of phthisis. This is shown objectively by gain in weight. A thin patient with tuberculosis should gain what he lost and his weight should then rise above what he formerly considered normal. Those who have lost weight and gain in weight upon hygienic treatment may wholly recover. The prognosis is, however, bad in young individuals who have lost much weight during the beginning of phthisis, for they rarely gain again. [M. O.]

2.—Grattery and Merigot de Treigny report 3 cases of glandular fever in children, following a few days after follicular tonsillitis. In 3 weeks on quinine the children recovered, with slightly enlarged cervical lymphglands resulting. The characteristic symptoms of glandular fever are the fever lasting about 3 weeks and the enlarged glands throughout the body. These swollen glands rarely suppurate. It is undoubtedly a general infection, gaining entrance through the nasopharynx. [M. O.]

3.—Lucas-Championnière, who has performed laminectomy 3 times for fracture of the vertebra and radicular neuralgia, describes the technique of opening the spinal canal. He operates but once, not at two separate times, as does Chipault, and does not use the trephine. [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending October 11, 1902:

SMALLPOX—United States.

C. D.

COLORADO:	Denver.	Sept. 20-27.	3
ILLINOIS:	Chicago.	Sept. 27-Oct. 4 . . .	3
KENTUCKY:	Covington.	Sept. 20-Oct. 4 . . .	11
MARYLAND:	Baltimore.	Sept. 27-Oct. 4 . . .	1
MASSACHUSETTS:	Boston.	Sept. 27-Oct. 4 . . .	10
	Fall River.	Sept. 27-Oct. 4 . . .	2
MICHIGAN:	Detroit.	Sept. 27-Oct. 4 . . .	18
NEBRASKA:	Omaha.	Sept. 27-Oct. 4 . . .	1
NEW HAMPSHIRE:	Manchester.	Sept. 27-Oct. 4 . . .	2
	Nashua.	Sept. 27-Oct. 4 . . .	21
NEW JERSEY:	Hudson County. . . .	Sept. 28-Oct. 5 . . .	1
	Newark.	Sept. 27-Oct. 4 . . .	7
NEW YORK:	New York.	Sept. 27-Oct. 4 . . .	1
OHIO:	Ashtabula.	Sept. 27-Oct. 4 . . .	1
	Cleveland.	Sept. 27-Oct. 4 . . .	50
	Dayton.	Sept. 27-Oct. 4 . . .	1
	Hamilton.	Sept. 27-Oct. 4 . . .	3
	Toledo.	Sept. 13-27.	15
PENNSYLVANIA:	Altoona.	Sept. 27-Oct. 4 . . .	2
	Erle.	Sept. 27-Oct. 4 . . .	1
	Johnstown.	Sept. 27-Oct. 4 . . .	33
	McKeesport.	Sept. 27-Oct. 4 . . .	5
	Philadelphia.	Sept. 27-Oct. 4 . . .	3
	Pittsburg.	Sept. 27-Oct. 4 . . .	24
	Reading.	Sept. 22-29.	2
SOUTH CAROLINA:	Charleston.	Sept. 27-Oct. 4 . . .	2
TENNESSEE:	Memphis.	Sept. 27-Oct. 4 . . .	2
WISCONSIN:	Green Bay.	Sept. 21-28.	1
	Milwaukee.	Sept. 27-Oct. 4 . . .	8

SMALLPOX—Foreign.

AUSTRIA:	Prague.	Aug. 30-Sept. 20 . .	5
BARBADOS:		Sept. 1-15.	266
CANADA:	Amherstburg.	Sept. 27-Oct. 4 . . .	1
ECUADOR:	Guayaquil.	Sept. 6-13.	4
GREAT BRITAIN:	London.	Sept. 13-20.	4
	New Castle-on-Tyne . .	Sept. 13-20.	2
	Sunderland.	Sept. 13-20.	1
INDIA:	Bombay.	Sept. 2-9.	3
	Madras.	Aug. 30-Sept. 5 . . .	2
ITALY:	Palermo.	Sept. 13-20.	5
RUSSIA:	Moscow.	Aug. 31-Sept. 6 . . .	1
	Odessa.	Sept. 6-20.	3
	Warsaw.	Sept. 6-30.	5
SPAIN:	Barcelona.	Sept. 1-15.	2
STRAITS SETTLEMENTS:	Singapore.	Aug. 16-23.	3
SWITZERLAND:	Geneva.	Sept. 6-13.	1

YELLOW FEVER.

COLOMBIA:	Panama.	Sept. 22-29.	4
MEXICO:	Coatzacoalcas.	Sept. 20-27.	4
	Vera Cruz.	Sept. 20-Oct. 4 . . .	25

CHOLERA—Foreign.

EGYPT:	Alexandria.	Aug. 31-Sep. 20 . . .	612
INDIA:	Bombay.	Sept. 2-9.	1
	Calcutta.	Aug. 31-Sept. 6 . . .	15
	Madras.	Aug. 30-Sept. 5 . . .	1
JAPAN:	Nagasaki.	Aug. 31-Sept. 10 . .	46

PLAGUE—United States.

CALIFORNIA:	San Francisco. . . .	Sept. 23.	2
	One case from		
	..Oakland.		
	San Francisco. . . .	Sept. 26.	2

PLAGUE—Foreign.

EGYPT:	Alexandria.	Aug. 31-Sept. 20 . .	6
INDIA:	Bombay.	Sept. 2-9.	41
	Calcutta.	Aug. 31-Sept. 6 . . .	16
	Karachi.	Aug. 24-Sep. 10 . . .	10
TURKEY:	Smyrna.	Oct. 4, present. . .	3

Splenopneumonia.—Picot (*Le Bulletin Médical*, July 23, 1902) has recently lectured on this subject in Bordeaux, presenting the case of a young girl of 20, who complained of pain in the right side of the chest, without cough or expectoration. She vomited her midday meal every day. After 3 weeks the fever descended by lysis, while the symptoms continued to suggest pleurisy. There were lessened expansion, diminished fremitus, and absolute dullness over the lower two-thirds of the chest on the right side. Inspiration could not be heard, while expiration was soft and distant. Both egophony and pectoriloquy were present. Exploratory puncture was continually negative. A blister caused improvement. Fever disappeared, as did dyspnea, and the dullness diminished, with recovery. While the condition is benign, it leaves the affected lung susceptible to changes in the temperature, especially during winter. The diagnosis is difficult, but the treatment is simple. [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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See Advertising Page 8

VOL. X. NO. 17

OCTOBER 25, 1902

\$5.00 PER ANNUM

Dr. Welch's Huxley Lecture.—Dr. William H. Welch, of Baltimore, who was chosen to deliver the Huxley Lecture of this year, selected as his subject: "Recent Studies of Immunity with Special Reference to Their Bearing on Pathology." The issue of the *Medical News* of October 18, 1902, presents this lecture to its readers, and it will also be found in the current issues of the *Lancet* and *British Medical Journal*. The efforts which have been made to grasp the workings of the organism and its method of dealing with its invaders have taken two general lines—the study of the action of the cells and the properties of the fluids of the body.

Dr. Welch points out the natural interdependence of these lines of research and of the important facts concerning immunity to which their study has given rise. He pays high tribute to the work of Metchnikoff and his pupils in their development and defence of the phagocytic theory. Welch believes that this theory has been defended with a large measure of success, notwithstanding the attacks which have been made upon it. He mentions the researches of Nuttall on the antibacterial properties of the body fluids, particularly of the bloodserum, the studies of Buchner, Pfeiffer and Behring, with the latter's great discovery of antitoxic immunity and of the value and method of use of antitoxic serum. These have added largely to our knowledge of the important physiological capacity for defence of the healthy organism. Ehrlich's name must be closely associated with that of Behring in his study of this form of immunity. This power of the healthy organism lies in its ability to produce substances specifically antagonistic to all manner of foreign cells and cellular products and derivatives. This is Welch's statement, and he remarks that the substances capable of inducing this immunizing reaction appear to be mainly of an assimilable albuminous nature or intimately associated with it, although it has been proven that certain nonalbuminous derivatives of proteids have the same power.

It is not possible within the scope of this editorial to follow Dr. Welch through his admirable summary of this subject. The nature of the specific

bodies which are formed within the organism to battle with invaders varies with the nature of the foreign material. They may produce neutralization of poisons and of ferments, injury or destruction of cells, or various changes, such as the agglutination of cells, precipitation and coagulation. Depending on the effects are the corresponding antagonistic bodies or antibodies classified. Welch says truly that one of the most important results of recent work is the separation of the specific antibodies into two groups. In one, represented by the antitoxins, the antagonists are single bodies, while in the other the antagonistic effect requires the cooperation of two bodies. Ehrlich's theories of immunity have been brilliantly set forth in the recent Croonian lecture of that authority. The most important feature of Dr. Welch's address is the presentation of his hypothesis in which he aims to explain the source, the mode of production, and the nature of certain bacterial toxins. It is presented as a development of the receptor theory of Ehrlich and the recent work on cytotoxins. It is recognized that disturbed metabolism is an essential condition in infection, and Welch's hypothesis undertakes to explain in what manner the bacteria derange metabolism. The reactions on the part of the organism to invading factors have received great attention, but the possible response of a parallel nature on the part of the invading cells toward the host is deserving also of consideration. Welch expresses this by stating that the struggle between the bacteria and the body-cells in infections may be conceived as an immunizing contest in which each participant is stimulated by its opponent to the production of cytotoxins hostile to the other, and thereby endeavors to make itself immune against its antagonist. The important factors which will determine the result of the contest are the relative proportions and the distribution of the bacterial cytotoxins and those of the host. Dr. Welch is at present undertaking an experimental test of the tenability of this hypothesis.

The lecturer continues with a résumé of the work of Flexner and Noguchi upon snake venom in rela-

tion to hemolysis, bacteriolysis and toxicity. This interesting communication was presented by the investigators before the College of Physicians of this city. Their results have since been confirmed by Preston Kyes. Dr. Welch is of the opinion that the work of the last-named pathologist is of the most far-reaching importance, and he dwells at considerable length upon this subject of bacterial hemolysins, leukocidins and hemagglutinins. The lecture closes with the interesting observation that our researches on immunity, which at one time seemed to threaten the foundations of cellular pathology, have only served to strengthen them.

The Etiology of Rheumatoid Arthritis.—Three theories have been invoked to explain the origin of this remarkable affection. The first looks to the seat of the disease in the central nervous system, and was already advocated by J. K. Mitchell in 1831. The second teaches that the affection is identical with acute rheumatic fever, and is a variety of it; the third holds that it is an infectious process, entirely different from rheumatic fever.

The first, or neuropathic, theory depends upon the supposed identity between the joints in rheumatoid arthritis and the articular phenomena occurring in tabes dorsalis, syringomyelia, progressive paralysis, etc. The analogy is even more striking if it is considered that in these nervous diseases the joint affection is often symmetrical, proceeding from the periphery to the center, with early signs of muscular atrophy, contractures and dystrophies of the skin. This theory has even had supporters, such as Charcot and Senator. Upon close inspection, however, there is not such a great similarity between the slowly arising symmetrical deformities of rheumatoid arthritis, which often require years for their development, and those which occur rapidly in the before-mentioned neuropathic affections. Further, it must be remembered that the joints affected in diseases of the nervous system correspond to the segments diseased in the spinal cord, whereas the joint involvements in rheumatoid arthritis are bilaterally symmetrical from the upper to the lower extremity and only gradually reach the joints nearer to the trunk, and lastly affect the large joints, which often are even entirely spared.

The second theory relative to the identity with acute rheumatic fever, is not tenable. It must be admitted that there are some cases which show an acute onset, and after the large joints have been affected the smaller joints are attacked and finally lead to ankylosis, but the universal absence of cardiac complication in these cases proves that they are

of an entirely different nature. This is shown by the researches of Barjon (Paris, 1897), Garrod and Bannatyne.

The third theory appears to be gaining ground rapidly. It has been found that after tonsillitis, influenza, internal purulent collections (Blake and Shattuck), after scarlet fever, etc., a form of chronic arthritis appears which is essentially different from the process in acute rheumatic fever.

Chauffart and Ramon (*Revue de Méd.*, Vol. XVI, 1896), in a case of chronic arthritis, found in the joint in smear preparations a diplobacillus which would not stain according to Gram's method. It was not possible to cultivate the organism, and inoculation experiments were not successful. Other observers, such as Charrin, Le Roux and Bouchard, have found similar organisms. This germ, however, is entirely different from the specific organism discovered by Max Schüller, which was only found in cases of acute rheumatic fever. The infectious nature of this disease is still further borne out by the fact that it occurs particularly in young females who are subject to vaginal discharge. The French school of physicians regard this as the mode in which the organism finds access to the susceptible individual. Further, the disease is characterized by fever, gastro-intestinal disturbances, remissions and exacerbations, all of which symptoms point to an infectious process.

In view of these facts, showing that this affection is totally different from acute rheumatism, it were better in our nomenclature to drop the term "rheumatoid" altogether, and substitute for rheumatoid arthritis the other synonym of arthritis deformans.

Professor Lorenz and Congenital Dislocation of the Hip.—It is to be regretted that so distinguished an orthopedist as Lorenz, of Vienna, should, after coming to this country to operate upon the daughter of a multimillionaire, be placed in his present light before the American profession. We trust and believe that this presentation of the distinguished foreigner is more the result of the American newspaper reporter than of any act or speech of Lorenz himself. That he is enthusiastic over his method of reduction of congenital hip dislocations is both natural and commendable, but he should have tempered his utterances to the representatives of the press, who have now presented him in what to the medical profession must be a most unenviable light. In one interview he is reported as saying that the result in the patient operated upon will be perfect; that the dislocated limb will not only remain in its proper position but that it will possess a perfectly normal function. This will, however, not have taken place until a number of months

have passed and the cast is removed. If correctly reported, Lorenz certainly has confidence in his method, is of a hopeful temperament, or else he is playing for popularity. The papers speak of him as the "bloodless surgeon of Austria" and as being surrounded by hundreds of poor women bringing their crippled children to him for relief. The newspaper accounts of interviews and statements tend to give to the profession and to the public what we believe to be an entirely wrong idea of Lorenz. The mistake, and there has been a mistake somewhere, probably lies in the admission of reporters to the clinics. No self-respecting surgeon desires newspaper notoriety, if for no higher reason than because it does him more harm with his profession than it does him good with the indiscriminating public. Medical men the world over have suffered from newspaper accounts of their achievements, but probably in our own country, where aggressiveness on the part of the reporters and dispatch on the part of the publishers are so marked, is the evil most noticeable.

In the treatment of congenital dislocation of the hip Lorenz has elaborated the method first suggested by Paci, which consists in the forcible reduction by manipulation without an incision, and in holding the leg in a position of flexion and abduction by means of plaster-of-Paris until by pressure the head of the femur has once more opened up the acetabulum. A number of months are required in order to accomplish this object. Lorenz has reported better results by this treatment than other orthopedists have been able to obtain, but his failures have been more than a few. Lovett states that Lorenz's method "is attended with less risk than the open method, and is liable to prove a failure ultimately, even when apparently successful at the time." It is certainly a treatment which does not carry with it the absolute assurance of a cure. A number of months must elapse before the cast can be removed, and then an equal length of time before the child is proof against relapse. It is worth mentioning, too, in this regard that function, and not the X-ray, is the criterion by which to estimate the result obtained in a given case.

Reduction by the open method was first recommended by Hoffa, and later modified by Lorenz, so the layman's appellation of "bloodless surgeon" is not altogether descriptive.

The profession is much indebted to this distinguished Austrian for the work he has done to alleviate a condition which renders its victim a hopeless cripple, and we trust that in our belief, that he has been misrepresented by the daily press, we are correct.

Dr. Lorenz and His License.—In his recent address on "Chauvinism in Medicine," Dr. Osler inveighed against the petty provincial spirit in the practice of medicine which seeks to keep up the barriers against foreigners. In this country we even go farther, because we put up barriers between the States. The whole business is somewhat regrettable, but no worse in the United States than in Europe. It would be exceedingly difficult for the best educated American physicians to obtain licenses in some European countries. Until all the nations grow a little broader-minded and consent to recognize each others' licenses, there will continue to be many an unseemly exhibition of the chauvinistic spirit.

In spite of this we are thoroughly in sympathy with the Illinois State Board of Health in requiring Dr. Lorenz to take out a license. Dr. Lorenz is a Vienna surgeon, and he is now traveling in this country. He recently announced his intention of practising his profession for a period in Chicago. The law in such cases is explicit, and there was no reason why Dr. Lorenz should be made an exception. Dr. Egan, Secretary of the Board, made the following statement:

There is no clause in the State law regarding practice merely in consultation cases. Dr. Lorenz, as we understand it, came from Vienna to Chicago to operate on the child of Mr. Armour in consultation with Dr. Ridlon, and there was no objection to that; but we heard that he meant to remain here for some time and continue to practise. This is a different matter, for the medical laws of this State require physicians to get a license to practise in Illinois. There was no intention to impose any hardship, neither did we intend to make any exception of anybody. All must obey the law."

Some of the newspapers have been disposed to magnify the importance of this incident. We can see no occasion for so doing. The Illinois officials, on the one hand, and Dr. Lorenz, on the other, simply complied with the law.

The Ante-Bachelor's Degree.—President Butler's proposal to give the degree of A. B. to some particular students after only a two years' course is a lamentable sign of the times. It is in accord with the general tendency to cheapen education. It meets the commercial demands of the day and, if we must say so, it caters to a depraved taste. Coming from the President of Columbia University, it will receive more attention than it deserves, and it will probably do more mischief than it ought.

If medical men do not want a good, broad, sound general education, let them say so, and let them go without it. But they should at least not aspire to appear to be something which some of them are always affecting to despise. To give a man half an

education and then to give him the degree of A. B., is not to solve the problem of education. You cannot both have a thing and reject a thing. The child cries in vain for both his cake and his penny.

The A. B. degree means something—in spite of the flippant criticism that it has no significance. It is the symbol of a certain kind of education which has been evolved by centuries of thoughtful endeavor. Whether this education is worth having or not, is a question for each man to decide for himself and his ward. But if he decides that he does not want it, let him not try to appropriate the mere livery of it.

President Butler's emasculated degree is intended, we understand, for medical students and law students. We hope the better sort of them will have nothing to do with it. If the day has really gone by for a liberal education, let us know the truth and adjust ourselves to it. But let us not masquerade in borrowed academic gowns. What man of good sense would want an A. B. degree that marked him as an Ante-Bachelor?

"The Death-Bed of Darwinism."—Some writers in Germany are trying hard to kill "Darwinism," and they have seized upon the death of Virchow as an occasion for announcing that the doctrine of evolution, as taught by Darwin, is all wrong. Dr. Dennert is conspicuous among these writers, and has just issued a pamphlet entitled "Vom Sterbelager des Darwinismus" (At the Death-bed of Darwinism). We commend these writers to read again the history of science, and they will find that the doctrines of gravitation and of the revolution of the earth were also opposed. But still, as Galileo said of the earth, "it still moves."

We are not familiar with the grounds of Virchow's objection to Darwinism, but all the world knows that a much greater zoologist than Virchow was all his life a strenuous opponent of evolution. We refer, of course, to Agassiz. This scientist maintained the doctrine of special creation, and probably showed thereby the bias of his early religious training. He had been brought up in the school of Geneva Calvinists, and his mind was never freed from the limitations thus imposed upon it.

The same thing in a sense may be said of Pasteur, who is also quoted as being opposed to Darwin's theory. The contributions of Pasteur to science were of enormous extent and importance, but there was little in his studies to give his mind a broad view of the evolution of natural forms. No one can read his life without being impressed with the fact that Pasteur was a man of strict limitations. He was not a broad thinker, and was all his life

curiously bound by the traditions of his peasant origin and his early religious training.

The "grammar of assent," as applied to any system of doctrines, is often a matter of personal prejudice. Few men can free their minds entirely of prejudice, and even the greatest minds do not. Dr. Johnson believed in ghosts, Napoleon in his star, and Socrates in his demon. We do not disparage the work of Virchow, of Agassiz, or of Pasteur, because they rejected the doctrine of evolution; but neither need we reject the doctrine of evolution because it was not accepted by Virchow, Agassiz and Pasteur. What would it matter if all the world rejected the doctrine of gravitation? The earth would still move.

Infantile Mortality in Norway.—Axel Johannesen, in his exceedingly able article in a recent number of the *Jahrbuch für Kinderheilkunde*, (September, 1902) discusses the mortality among Norwegian infants during the first year of life. This depends largely upon the nourishment and care given them. The influence of climate, epidemics, racial characteristics, social position, surroundings, etc., is but secondary. Statistics from the different countries of Europe from 1801 to 1900 show that, while the death-rate for infants under one year of age for most countries keeps about the same, Norway has had a gradually decreasing infant mortality. This is also true of Sweden and Ireland, though the Irish statistics are incomplete. Württemberg, from 1862 to 1868, had a death-rate of 36%, the highest recorded; Norway, on the contrary, has the lowest, for from 1876 to 1898 the death-rate of infants under one year was only 9.8%. This was much lower in the country districts than in the cities; and it was highest in Northern Norway, reaching 22.69% in Kvalsund. During the first month it was greater than in the eleven other months together. The mortality among illegitimate infants under one year was 15%, as compared with 9% for legitimate children. This is in accord with the statistics both of Berlin and Paris. It is easily comprehensible that the mortality is greatest among infants fed upon animal milk and artificial foods. As a general rule there were more deaths in summer than in winter, yet in Northern Norway the mortality was highest in November and March. Many deaths were due to infectious diseases, especially in the North. A similar article upon infantile mortality in France appeared in the *Revue d'Hygiène* (August, 1902) by Bertillon. The death-rate for infants under one year in France has increased up to within a few years, and it is now about 15%. Bertillon, whose statistics relate to foundlings only, finds that the mortality among these infants is 60% higher than

in other French children under a year old. Their greatest mortality is in the second and third weeks of life, while among other French infants this is noted in the first week of life. The most common cause of death is diarrhea. Both of the articles have excellent, full tables appended, with charts which show that, while France, with a comparatively moderate infant mortality, has had but little variation during the last hundred years, Norway has an infantile death-rate which, moderate in 1801, has decreased considerably since. Comparatively, then, Norway holds the highest position, since the lowest number of deaths occurs there, among infants under the age of one year, of any country of Europe.

The Grand Army and the Pension Bureau.—The general public must often weary of the complaints of the members of the Grand Army that they do not receive enough pensions. The United States Government is paying out \$140,000,000 a year in this kind of largess. In view of these figures the assault on the medical officials of the pension office, made at the last annual meeting of the G. A. R. in Washington, was particularly ill advised. Because these officials exercise due care and vigilance, they are accused of acting with injustice, and are denounced for performing their duties. The Grand Army should be better advised, and cease these annual complaints. There are almost 1,000,000 pensioners on the pay-rolls, although it is now more than 37 years since the close of the war.

We believe it to be our duty to support the medical officers of the Government in the discharge of their responsible duties. The best authorities think that there has been more abuse on the side of liberality than on that of parsimony in our pension department. This is a form of public service in which medical men of the best knowledge and judgment, and of the most sensitive conscience, are required; and they should not be the target for annual abuse.

President Eliot's Latest.—The distinguished head of Harvard University has just made an arraignment of our public schools. He holds them responsible for almost all the evils under the sun, inasmuch as they have failed to eradicate these evils. This is a novel point of view, and reminds us of the boy who was whipped, not only for the evil that he did, but also for the good that he neglected to do.

We are particularly interested in President Eliot's arraignment wherein he says that the public schools have fallen short of the mark because they have "failed to suppress a taste for ephemeral reading, for improper plays and for patent medicines." The juxtaposition here is excellent. Patent medicines are classed with society novels and with our un-

speakable theatricals. Nothing could be better than this, for nothing could be worse than these.

Current Comment.

THE ATTACK ON THE MEDICAL ADMINISTRATION OF THE PENSION BUREAU.

It seems to us unfortunate that at every national meeting of the Grand Army of the Republic there should be an official, or more or less official, attack on the pension department of the government. No nation has ever been more generous to its defenders; there is nothing in history that compares with its course in this respect. Nevertheless, each year the representatives of the nearly one million pensioners attack the administration of the Bureau of Pensions for its watchfulness for the interests of the government. This year the medical officers of the bureau are the special objects of attack; they are charged with being narrow, according to the press reports, "even to the extent of requiring claimants to establish their right to a pension beyond all reasonable doubt."—*Journal of the American Medical Association*.

IS THE AMERICAN COLLEGE TO GO?

It seems only yesterday that we were shocked at President Eliot's proposal to give the bachelor's degree for three years' work at Harvard. And now comes President Butler with his plan for putting the same thing, or another "just as good", on the market at the price of only two years' work at Columbia. If this competition continues, some shrewd business-like university will soon be advertising first-class bachelor's degrees while you wait; near B. A.'s, which look like the real thing and wear better; already put up; sent to any address upon receipt of price; freight prepaid; club rates for large quantities; agents wanted.

"Is the American college to go?" was the caption of an editorial in the *New York Sun* on President Butler's move. It declared that it was in the "desultory reading" and "comradeship" which make up a part of their four years' course that college men in the world to-day got the best of their education. "The country can do without the graduate schools, without fourth-year law or fifth-year medicine, even without the important dissertations of doctors of philosophy, better than it can do without these two years of college life that President Butler wants to cut off."—*The Princeton Alumni Weekly*.

WOMEN DOCTORS IN GERMANY.

During the years 1901 and 1902 only one lady took her degree as a doctor at the Berlin University, but altogether during last year no fewer than fourteen ladies have taken medical degrees at German universities. Of these lady students only six were Germans. Five passed at the Halle University, three at Heidelberg, two at Göttingen, one in Berlin, one in Breslau, one at Freiburg and one at Munich.—*Medical Press and Circular*.

Correspondence.

THE TROOPS IN THE COAL FIELDS.

By W. A. N. DORLAND, M. D. Asst. Surgeon, 2d. City Troop.

To the Editor of *The Philadelphia Medical Journal*.

Five days ago the order came transferring us from Shenandoah to Wilkes-Barre. An all-night journey brought us from the bleak hills of the Indian Ridge to the low-lying

meadows on the banks of the Susquehanna. An agreeable change it was as far as scenery is concerned. We are now in the midst of a populous district. All around us the picturesque villages dot the hillsides or nestle in the valley, and when the wind blows we can hear the ringing of the church bells. The soil upon which the camp is pitched, however, is soft river loam, to which yearly additions are made by the spring freshets. We are told by the inhabitants that malaria is rampant here. Consequently, quinine has been added to the daily diet of the men as a precautionary measure. If it be in our power, we shall by this action prevent a break in the remarkable health record of the troop. My position as surgeon of the troop has been heretofore almost a sinecure. And right here I would emphasize the statement that has been made by other surgeons and demonstrated again and again in the war and field services of the country, namely, that the boys from the cities and larger towns endure the hardships of camp far better than those from the rural districts. Strange as this may sound, it is undoubtedly true. As far as I know, no explanation has been advanced, but I am inclined to believe that it is due to the hardening effect of the adverse conditions met with in the cities. Of all the organizations in the field we have had the cleanest record medically. The greatest difficulty I have had to contend with has been the deadly box from home filled with sweetmeats and delicatessen. Harmless as these dainties may be at home, here in the field they become endowed with peculiarly pernicious qualities. Our men have largely learned this in the forty-eight days' service, and the boxes are now becoming few and far between. We have had a "dry camp" this outing. Only during the fortnight of continuous rain was the hot toddy generously served to the tired and mud-besprinkled men, and with excellent effect in counteracting the wind and wet. There has been a total absence of beer, and in consequence its laxative influence has not been noted. It has been interesting to observe the enlivening and invigorating influence of activity in strike service upon the men. During two weeks of continuous rain the mental depression was marked. On the contrary, a ride of a few miles, or the dispersing of an angry mob, would result in an elevation of spirits that would persist for two days. A liberal diet, abstinence from alcoholics and indigestible dainties, and plenty of exercise are the main essentials for the health of troops in camp.

THE MARRIAGE OF LEPERS IN HAWAII.

By CHARLES R. BLAKE, M. D., of San Francisco, Cal.

To the Editor of *The Philadelphia Medical Journal*:—

Your editorial in the issue of October 4th., concerning the marriage of lepers in Hawaii, was of particular interest to me, as I have practised medicine in Hawaii the past five years. I have had the privilege of visiting Molokai, and would say in defence of the lepers, that they are absolutely separated from the rest of the world. They have two towns on the island, Kalawao and Kalaupapa, with streets laid out, stores, a police force to keep order, a justice, a very good band, schools and, of course, a hospital; in fact, nearly everything is there to make the place as nearly like a small town in any other place as possible. Of course, every person in the place, except the priests, superintendent and resident physician, is a leper; and the inmates are in all stages of the disease. They naturally enjoy more or less sociability, and even, as you mention in your editorial, get married, and have children in some cases; but it is felt in the islands by all the residents, that anything that can be done to help them and make their days more pleasant in their exiled condition, should be done; and when the fact is considered that they can never leave Molokai, it would certainly seem that there

can be no harm done in making them as happy and comfortable as possible. If any children are born, they are taken to Honolulu at an early age and kept directly under the watch of the Board of Health; and it is a well-known fact that the disease has seldom yet developed in any of the children born on Molokai.

JOHNSON'S OPERATION FOR TURNING OFF THE CAROTIDS IN OPERATIONS ON THE HEAD AND NECK.

By ROBERT W. JOHNSON, M. D., of Baltimore.

To the Editor of *The Philadelphia Medical Journal*:—

Your publication of September 27, 1902, contains an article by Dr. Mills, Dr. Pfahler and Dr. J. B. Deaver, on an "additional case of tumor of the brain localized clinically and by the "Röntgen rays." In the article Dr. Deaver says, among other interesting details, "It was decided to take additional advantage of the new method of temporarily closing the carotid arteries in order to control hemorrhages during cranial operation, recommended by Dr. George Crile, of Cleveland, Ohio."

Permit me to call the attention of yourself and subscribers to a paper read by me before the Clinical Society of Maryland, February 12, 1898, and published in the *Medical Record*, July 16, 1898, entitled "A device for turning off the carotids in operations on the head and neck." I further demonstrated the operation on a dog before a body of visiting physicians at the Centennial meeting of the Medical and Chirurgical Faculty of Maryland, April 27, 1899.

Dr. Crile's article appeared nearly four years after mine in the *Annals of Surgery*, April, 1902. It makes no mention of my paper, and though I sent him a reference to it at once, he has not favored me as yet with any notice of its receipt.

It is possible he never received it, and I have no reason to believe that the idea was any less spontaneous with him than with me. I happened to think of it first.

It is true he has published reports of experiments on human subjects as well as on dogs, and substituted clamps for broad ligature, and takes a more enthusiastic view of its effect in intracranial operations than I did, but the idea is the same, and if there be any credit due the operation, I think that it should go to the man who can clearly show priority in its development. It really is Johnson's operation, not Crile's.

Reviews.

Alkoholismus im Kindesalter. By Prof. Dr. Max Kassowitz. Karger, Berlin, 1902.

The conditions that gave rise to the production of this monograph do not exist in anything like the same degree on this side of the Atlantic. It must be remembered that among us the "Beercult" is not exactly a part of our religion as it is of some of the natives of Germany. It is necessary to live among them in order to realize what a national drink means, and how ready they are to repel any insinuation that it can be injurious, and to insist that it is of the greatest benefit in a variety of conditions. In pursuance of these views it is not surprising that the cure for almost all the ills of the flesh is more beer, or, if this is not considered sufficiently heroic, wine and brandy, and this applies not only to the sicknesses of adults, but also to those of children. Of course, it is not to be understood that the whole population of Germany is given to bibulous indulgence. On the contrary, even in Bavaria, there are physicians and laymen who raise their voices against alcohol as a beverage. Temperance cafés are found in almost all the large cities, and the prohibition propaganda

is being actively pushed, although, up to the present, without any tangible effect. And, besides this, there are many strictly temperate drinkers who deplore the excesses practised, especially by the lower classes, and realize the injuries they produce. It is particularly against the free administration of alcohol to young children that Kassowitz, an ardent temperance advocate, raises his voice; and the illustrations that he presents of the dire effects are certainly sufficiently startling. When one realizes that the 22 observations are personal and have occurred in the practice of a single man, it becomes possible to understand how popular is this method of treating weak children. Unfortunately it is not a mere perversion of the lay idea, but in many cases wine, beer and brandy in considerable doses are recommended by physicians. It is hardly necessary in this country to write a monograph to prove that to take 2 or 3 glasses of wine per day with a small amount of brandy is not beneficial for a two-year-old child; or that four or five glasses of beer per day do great harm to a young school-boy. But it is at least useful to know that a man who has had Kassowitz's experience believes that alcohol is practically always contra-indicated in childhood; indeed, the last part of his paper is a destructive criticism of the value of alcohol as a drug. [J. S.]

Einführung in die Farbstoffchemie für Histologen. Dr. L. Michaelis. 8vo. paper, 154 pages and index. Berlin. S. Karger.

This is in several respects an interesting book. It shows the extent to which specialism has gone, when so large a treatise can be presented simply on the question of the chemistry of the colors used in histological and pathological work. It also shows the high development of the theory of color formation and the deep hold that the views of the German school have upon the science. Seventy-four pages are devoted to elucidating the chemistry of the synthetic colors, all the elaborate theories of molecular structure being presented in a clear and vivid form. About sixty pages are given in explanation of the conditions determining dyeing and transformations of colors, after which follows a discussion of special points in tissue staining. The book is not a practical manual for the laboratory, but an essay upon the principles of staining as applied to organic tissues.

We have nothing but commendation for the book. The author thoroughly understands the subject and has presented theoretical matters in an attractive and clear form. The illustrations of structural formulas are well executed and the nomenclature is correct. We are, nevertheless, inclined to doubt whether such a book can find any considerable number of readers. Specialists in the chemistry of dyeing and coloring will be familiar with most of the data, through access to the standard text-books; students of histology and pathology will have no time for so elaborate a discussion of principles, nor indeed, does it appear to us necessary for them to have such knowledge. Clear as the text is, the intelligent perusal of it is possible only by those who have much familiarity with organic chemistry and the modern theories of synthetic compounds. We desire to say, however, that Dr. Michaelis has done his work well and deserves success. [H. L.]

A Manual of Instruction in the Principles of Prompt Aid to the Injured. Including a chapter on Hygiene and the Drill Regulations for the Hospital Corps, U. S. A. Designed for Military and Civil Use, by Alvah H. Doty, M. D. Health Officer of the Port of New York, etc., etc. Fourth Edition, Revised and Enlarged. New York. D. Appleton & Company, 1902. Page 302.

This well known manual is presented in an enlarged and improved form which fully brings its subject matter up to the present day methods. Especially is this improvement to be noted in the chapter on Disinfection, which the author tells us has been entirely rewritten in order to comply with the more recent scientific methods. The illustrations

throughout are numerous and instructive, and the methods of treatment adopted are those which are in vogue among the progressive surgeons of the day. A valuable addition to the book is the section devoted to the hospital corps drill regulations as used by the United States Army. This includes the manual of the litter, the fundamental principles of marching, the methods of removing wounded without litters and the ambulance and ambulance drills. We are not quite sure that it is altogether proper for any book to make use of the Red Cross symbol, however valuable the book or however laudable its motives. Such a symbol, we feel, should be religiously restricted to its legitimate use and its circulation indiscriminately is, we fear, apt to lessen its significance among the people. This is the only criticism we would offer. The book itself is all that could be desired. [W. A. N. D.]

Lea's Series of Pocket Text-Books. Materia Medica, Therapeutics, Medical Pharmacy, Prescription-Writing and Medical Latin. A Manual for Students and Practitioners. By William Schleif, Ph. G., M. D., Instructor in Pharmacy in the University of Pennsylvania. Series edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, New York; Visiting Surgeon, Bellevue Hospital, New York. Second Edition, Revised and Enlarged. Lea Brothers & Co., Philadelphia and New York.

The second edition of Schleif's *Materia Medica and Therapeutics* has been considerably revised and enlarged. The sections on Medical Latin and Prescription Writing have been much amplified and this edition contains a Therapeutic Index of New Remedies. These have been incorporated alphabetically, and we observe that the unfavorable effects have not been considered. We believe such mention should be made in a work which mentions at all the extrapharmacopoeial preparations. The author has followed the general classification of H. C. Wood rather than the newer pharmacological classification. The consideration of each drug, while brief, nevertheless covers the more important points. On the whole Dr. Schleif's work is a satisfactory compend and has been arranged with care and an eye to the practical needs of the student. [T. L. C.]

Typhoid Fever. By J. T. Moore, M. D., M. C. P. S., Professor of Theory and Practice of Medicine, Medical Department of Hamline University, Minn. Pages 159. Price, \$1.00 net. G. P. Engelhard & Co., 1902.

Professor Moore has prepared a brief treatise upon typhoid fever, compiled chiefly from some familiar text-books and monographs, and containing a moderate amount of personal experience. Aside from the chapter on complications and sequelæ, which is largely extracted from Keen's and Hare's monographs, it does not differ from such an article on typhoid fever as might be found in a good text-book. In the section on treatment Dr. Moore places himself strongly on the side of those who believe in intestinal antisepsis, because the intestines contain the largest number of micro-organisms and are the chief situation in which the ptomaines are formed. He especially prefers the carbonate of guaiacol and turpentine. There is little to criticize in the book and perhaps less to praise. The description of the Widal reaction might have been more thorough, but otherwise the subject is fairly well covered. The style is colloquial and occasionally exceedingly careless. A thorough revision of the English will do much to improve the second edition. As in all this series, the binding is substantial, the paper good and the printing excellent. [J. S.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

International Clinics.—Dr. Aloysius O. J. Kelly became the editor of this publication October 1, succeeding Dr. Henry W. Cattell.

Dinner in Honor of Drs. Keen and Wood.—A dinner will be given November 6, by a number of prominent physicians of Philadelphia, at the Hotel Bellevue, in honor of Dr. W. W. Keen and Dr. H. C. Wood, who have recently returned from a trip around the world. The committee in charge consists of Drs. Osler, Stelwagon, Dercum, Musser, De Schweinitz, Da Costa, Stengel and Hare.

Society Meetings Next Week.—The only society to meet next week at the College of Physicians, Philadelphia, will be the Neurological Society, on Tuesday evening, October 28, at 8.15 p. m.

The Health of Philadelphia.—For the week ending October 18, as for the preceding week, there was a marked decrease in the number of cases of typhoid fever reported. There was also a decrease in the cases of scarlet fever and diphtheria, and but 2 cases of smallpox were reported, one of them occurring in Moyamensing Prison.—A case of smallpox was also found in the Pottstown Hospital during the week.—A case of typhoid fever appeared October 14, in the camp of the 16th. Regiment, at Mount Carmel. The patient was removed to the Miners' Hospital, Fountain Springs.—Owing to the prevalence of diphtheria and scarlet fever in Williamsport, several public schools have been closed.

NEW ENGLAND.

Popular Education.—President Eliot, of Harvard, in his address, October 17, at the 56th. annual meeting of the Connecticut State Teachers' Association, speaking upon some failures of popular education due to inadequate school expenditures, said that Americans are curiously subject to medical delusions. They are the greatest consumers of patent medicines in the known world and the most credulous patrons of all sorts of medicine men and women of novel healing arts. Is it not a just inference from the openness of the American mind to medical delusions that the common schools have not done what they ought toward developing the power to reason justly?

Antitoxin in Diphtheria.—The Massachusetts State Board of Health states that in the past 7 years nearly 11,000 lives were saved by the use of antitoxin. This was first manufactured in Massachusetts in 1895. While the ratio of deaths to cases of diphtheria from 1891 to 1894 was 28.3, it fell in 1895 to 18.9, and in 1891 to 10.5. The recent report describes the method of preparation, the number of bottles distributed, and many details upon the good effects of antitoxin in the treatment of diphtheria.

Boston Dispensary.—This institution, incorporated in 1801, dependent altogether on private contributions for support, is badly in need of funds. The growth of the work has been such that the institution is cramped for room. Over a million and a half patients have been relieved since this dispensary was opened, 90,000 having received treatment last year, besides 20,000 visits paid.

Dr. Minot Honored.—Dr. Charles Sedgwick Minot, professor of histology and human embryology in the Harvard Medical School, received the honorary degree of doctor of science at Oxford, England, October 9.

Convention of State and Provincial Boards of Health of North America.—This conference will be held at New Haven, Conn., October 28 and 29, under the presidency of Dr. H. M. Bracken, of Minneapolis. The secretary is Dr. G. T. Swarts, of Providence. Among the delegates at this sanitary convention will be Dr. John Guiteras, formerly professor of pathology at the University of Pennsylvania, at present occupying the chairs of pathology and tropical diseases in the University of Havana, Cuba. He is expected to discuss yellow fever. A number of physicians prominent in sanitary affairs and delegates from both the Army and the Navy Medical Corps are expected to attend.

Bequests.—By the will of the late L. G. Burnham, \$150,000 were left to the Boston City Hospital for the construction and equipment of a new building.—The late Frank Jones,

of Portsmouth, N. H., left \$10,000 to the Portsmouth Cottage Hospital and \$5,000 to the Chase Home for Children and the Home for Indigent Women, Portsmouth.

SOUTHERN STATES.

Southwestern Tri-State Medical Association of Texas, Oklahoma, and Indian Territory.—At the last meeting, held at Dallas, Texas, October 9, the following officers were elected for the ensuing year: Dr. J. C. Loggins, Ennis, president; Dr. R. J. Grabill, South McAlester, Dr. J. B. Rolatin, Oklahoma City, and Dr. F. Paschal, San Antonio, vice-presidents; Dr. C. M. Rosser, Dallas, secretary and treasurer.

International Congress of Americanists.—After this congress, which was held in New York, October 20 to 25, a number of the delegates will visit Washington. Among these are Dr. Chavero, of Mexico, and Dr. Schmeltz, of Holland. Visits will be made to the Smithsonian Institute and the Army Medical Museum. Among the well-known anthropologists and ethnologists expected are Dr. G. M. Kober, Dr. D. T. Day, Dr. J. W. Fewkes, Dr. Walter Hough, Dr. D. S. Lamb, Dr. Frank Baker, Dr. G. M. Sternberg and Dr. L. O. Howard.

MISCELLANY.

Bubonic Plague and Fish.—The statement, made in our issue of October 11, page 490, that the people who live upon fish are first attacked by the plague, has not been confirmed in a thorough investigation recently made by the U. S. P. H. and M.-H. Service. A Japanese specialist, Nickaladi, has shown that the plague reported among the families living upon fish was not similar to bubonic plague, nor did germs from the fish cause plague in human beings. While it remains true that fishermen are most often affected by bubonic plague, this is not due to their living, as a rule, solely upon fish, but to the fact that these people go about without foot covering, and thus constantly receive abrasions of the feet and legs, offering an easy entrance of the plague bacillus.

Quarantine Against Cuba.—On account of the continued absence of any evidence of yellow fever on the Island of Cuba during the past summer, the quarantine restrictions against the island, usually effective until November 1, were removed this year, October 15.

Cholera.—The cholera is rapidly dying out in Manila, and in all of the provinces except Iloilo, Leyte and Zambales. In Cebu, where the cholera was very disastrous in its effects, it is now completely under control.—The epidemic is spreading rapidly in Palestine. Gaza reports from 30 to 40 deaths daily.—In Egypt the disease is rapidly decreasing. Between October 12 and 18, 706 cases, with 636 deaths, have been reported.

Yellow Fever in Ecuador.—At a meeting of the board of health, October 14, the city of Guayaquil was declared infected with yellow fever. A number of deaths have already occurred from the disease.

Plague in Turkey.—The State Department of the United States has received official information that the plague exists at Smyrna, Turkey.

The Health of Japan.—Yokohama is free from cholera and other quarantinable diseases. According to official returns up to September 13, the total number of cases of cholera reported in Japan since the outbreak this year was 7,360, 3,060 of which proved fatal.

Smallpox in Barbados.—Despatches from Barbados, October 11, state that smallpox is increasing, 968 cases of the disease having occurred in 6 days.

Porto Rico's Birth-Rate.—The report of the director of health of the Island of Porto Rico shows that during July, 1902, there were 1,247 living legitimate children, and 1,031 living illegitimate children born.

Obituary.—Dr. Morris J. Asch, at Irvington-on-Hudson, N. Y., October 5, aged 70 years.—Dr. Leander D. Tompkins, at Cassopolis, Mich., October 1, aged 85 years.—Dr. William A. Adams, at Fort Worth, Texas, October 16.—Dr. William Riddick Whitehead, at Denver, Col., October 13, aged 70 years.—Dr. Edward B. Rich, at Wytheville, Va., October 13, aged 23 years.—Dr. Edwin A. W. Harlow, at Quincy, Mass., October 12, aged 89 years.—Dr. William E. Doughty, at Hartsville, Pa., October 15, aged 66 years.—Dr. John A. Buflington, at New Windsor, Md., October 17, aged 40

years.—Dr. E. E. Carpenter, at Columbus, Ohio, October 19, aged 44 years.—Dr. James D. Wade, at Williamsburg, N. Y., October 20, aged 65 years.

GREAT BRITAIN, ETC.

Smallpox in London.—Last March there were about 1,600 cases of smallpox in the city of London. This number began to decrease in May and has continually decreased since, but 70 cases of smallpox being reported in the city of London and vicinity September 1. The quarantine against smallpox in London was discontinued September 5, 1902.—During the month of September but 3 cases of smallpox were reported in Scotland.

The Health of India.—According to the report of Lieutenant-Colonel W. G. King, of the British India Sanitary Service, the mortality for malaria was very high. It seems impossible in some localities of India to rouse the natives to any action against the mosquitoes. Besides, many physicians make no attempts at differential diagnosis between malaria and typhoid fever. Though rare among the natives, many true cases of typhoid fever have been found in different parts of India. With the introduction of a public water supply, the number of cases of fever have greatly decreased.—The triennial report on Burmese hospitals, 1901, describes the symptoms of beriberi in full. If the patient affected is removed from the locality where the disease was contracted, early, he generally recovers. The cause of the disease has not yet been found. It is rare among Burmans, occurring mainly among the natives of India. Dr. Holst, of Christiania, has been studying the disease in the Burman General Hospital. He believes that the food shows some causal relation to the disease, since fresh food is the best means of overcoming an epidemic.—A new hospital and dispensary for women and children was opened at Indur, Hyderabad, September 25.—The plague is still prevalent at Mysore, from 20 to 55 new cases being reported daily. The municipal government is preparing plans for the drainage of the city.

Hunterian Lecture.—The first Hunterian lecture, before the Hunterian Society, London, was delivered October 8, by Dr. S. J. Sharkey.

Annual Medical Services, London.—The annual Medical services, organized by the Guild of St. Luke, were held in St. Paul's Cathedral, London, October 22. The sermon was preached by the Bishop of Kensington. A great number of medical men attended in academic robes. Music was furnished by a choir of over 200 voices.

Maritime Disinfection Against the Plague.—Dr. Haldane, of Liverpool, believes that carbonic oxide, blown through all parts of the ship before the cargo is broken, destroys all rats on board, and thus prevents plague infection. The carbonic oxide is generated by blowing air through a bed of incandescent coke or anthracite in a special furnace. The result, known as producer gas, contains 3 parts of carbonic oxide to 7 of nitrogen. When a vessel comes into dock, the necessary apparatus is brought alongside, and the poisonous air is blown through the hold, entering through a ventilator in the upper part and passing out through an opening of the lower part into the next hold. The tarpaulins covering the hatches are not removed until the operation is completed. The poisonous air is then blown out with pure air, and the hatches are opened. To determine whether any poison remains, a small bird or a mouse is lowered into the different holds. Haldane's experiments showed that all rats were killed in 9 minutes.

Queen's College, Belfast.—Dr. T. H. Milroy, of Edinburgh, has recently been appointed professor of physiology in Queen's College, Belfast.

The Death-Rate of Durham, England.—For several years this has been 15 or 16 per 1000, and there have been but few infectious diseases reported. During August the death-rate was only 10.5 per 1000, and not a single infectious disease was found.

CONTINENTAL EUROPE.

French Congresses Held this Week.—The French Surgical Association held its meeting October 20 to 25; the French Urological Association, October 23 to 25, both in Paris. Dr. Guyon was president at the latter congress.

Institute for Colonial Medicine.—This has recently been founded, and is open to both French and foreign physicians. Both theoretical and laboratory courses will be given. The different professors are: Drs. Chantemesse, Blanchard, Le

Dentu, Lapersonne, Wurtz, Jeanselme and Brouardel. The dean of the institution is Dr. Debove.

Belgian Surgical Society.—At this year's congress, held in Brussels in September, a committee, consisting of prominent surgeons from all over the world, was appointed for drawing up plans for the foundation of an international surgical society.

Leprosy in Germany.—According to an official report, there were 37 lepers in the German Empire at the end of the year 1901. Of these 25 were in Prussia, 8 in Hamburg, 2 in Bavaria, one in Mecklenburg-Schwerin and one in Alsace-Lorraine. In all cases the disease was contracted abroad.

The Health of European Armies.—Professor Kende, of Budapest, has been engaged in exhaustive inquiries as to the relative sanitary condition of the armies of various nations. He has come to the conclusion that the state of health of the German and French armies is the most satisfactory in Europe. The general condition of the French is less strong than that of the German army, the individual constitutions being more feeble. Austria suffers great waste in consequence of disease, and in Italy the whole sanitary condition is bad. He states that for every contingent of a thousand men Italy loses 9, Austria 6, France 5 and Germany only 4.

Suspected Yellow Fever in Spain.—As we announced September 20, a number of cases of suspected yellow fever occurred in the province of Pontedevra, early in September. As pointing to the possible origin of these cases, it has been noted that a Spanish steamship left Porto Rico, September 18, for Spanish ports, after leaving the body of a passenger who died of a disease suspiciously like yellow fever in its symptoms. The latest recorded occurrence of yellow fever in Spain was in 1878, the disease occurring in Madrid, among soldiers who had arrived from Havana. The latest appearance of yellow fever in Europe was in 1894, when 2 cases occurred at Trieste, Austria, in seamen from Brazil. (U. S. P. H. and M.-H. S. Report.)

Bubonic Plague in Europe.—The *London Times* is the authority for the statement that many cases of the plague are still occurring in Odessa. The city authorities of Odessa reported 18 cases of suspected plague, with 6 deaths, September 10. The municipality has decided to employ rat typhus cultures, instead of strychnine, for the destruction of the rats in the city. \$250,000 have been appropriated for increasing the hospital accommodations.—The *Messaggero*, of Rome, states that several cases of suspected plague have occurred at Ponticelli, near Naples. This report, however, is discredited by the authorities.

University Notes.—**Agram:** Dr. Anton Lobmayer, a former pupil of Billroth, celebrated the anniversary of 25 years as professor of obstetrics, September 21.—**Berlin:** It is rumored that Professor von Jaksch, Prague, will succeed the late Dr. Gerhardt as chief of the second medical clinic.—The meeting of the Verein für innere Medizin, October 20, was in memory of Virchow and Gerhardt, von Leyden delivering the address.—The Berliner medicinische Gesellschaft also held its meeting October 29, in Virchow's memory.—**Cadiz:** Dr. J. L. Hoehr y Rodriguez has been appointed professor of therapeutics.—**Erlangen:** Dr. Oskar Schultz, first assistant in the Physiological Institute, has been appointed director of the chemical department.—**Graz:** Among those mentioned as the possible successor of Dr. Escherich in the chair of pediatrics are Drs. Pfandler, Graz; Raudnitz, Prague; and Keller, Breslau.—**Heidelberg:**—Dr. von Rosthorn, of Graz, has become director of the obstetrical clinic.—**Moscow:** Dr. S. Tschirwinsky, of Dorpat, has been appointed professor of pharmacology.—**Prague:** Dr. F. Vejdosky, professor of embryology and comparative anatomy, has been appointed professor of zoology, replacing Dr. Anton Fric, recently retired.—**Vienna:** Dr. Isidor Neumann, professor of dermatology, has been retired, having reached the age limit. His successor will be Dr. Franz Mracek.

International Conference on Tuberculosis.—Among those present at this meeting, which was held at Berlin this week, were Dr. William H. Welch, of Baltimore, Dr. Dennison, of Colorado, and Dr. J. M. Eager, passed assistant surgeon U. S. Public Health and Marine-Hospital Service.

Obituary.—Dr. Eduard Mayer, the well-known Parisian ophthalmologist, died recently in Falkenstein, aged 68 years.—Dr. Albert Sigel died in Stuttgart, aged 63 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

October 4, 1902. (No. 2179.)

1. The Treatment of Wounds in Naval Actions. GILBERT KIRKER.
2. The Duties of Medical Officers in Connection With a Naval Action. W. J. COLBORNE.
3. A Discussion on the Prevention of Scurvy. A. TURNBULL, G. A. HUTTON, GILBERT KIRKER and DUKE.
4. Voluntary Aid to the Sick and Wounded in War. With Special Reference to Hospital Orderlies. G. A. HUTTON.
5. The Treatment of Abdominal Wounds in War. C. ROBERTS.
6. A Few Observations Mainly Concerning the Red Cross Badge. PORTER.
7. Consumption in the Navy. GERALD SICHEL.
8. The Position of the Volunteer Regimental Medical Officer. A. E. LARKING.
9. The Brigade Medical Unit. P. B. GILES.
10. Reform in the Army Medical Service. J. B. HAMILTON.
11. An Ambulance Stretcher. C. MANSFIELD.
12. Contract Medical Fees in Hydropathic Hotels. A. H. BAMPTON.
13. A Discussion on Contract Medical Practice. B. W. HOUSMAN, WM. M. SMITH and ALFRED COX.
14. Coventry Public Medical Service as a Model for the Regulation of Professional Contract Work. W. R. RICE.
15. The Preliminary General Education of Medical Students. WM. GORDON.
16. Better Organization of Medical Relief. C. S. LOCH.
17. Hospital Abuse and Its Effect on the General Practitioner. E. H. T. NASH.
18. Reform in Hospital Management. D. F. ANDERSON.
19. The Organization of a Political Bureau in the British Medical Association. VICTOR HORSLEY.
20. Medical Unions: How to Form Them, and How to Maintain Them. EDWARD JEPSON.
21. Hints on Local Medical Organization. J. H. HUNTER.
22. Vaccination Acts—1867 to 1898. R. F. TOMLIN.

1.—Kirker believes his "ambulance sleigh" to be the safest and most useful appliance for the transportation of wounded through the passages of men-of-war. The wounded in naval actions may be conveyed from the fighting decks to the lower part of the ship by means of the ammunition hoists, as these are practically the only channels open during a battle. In those ships not fitted with ammunition hoists the ordinary hatchways and skylights would have to be utilized. By these means the surgeon would find plenty to do during an action, but the principal work would have to be done after the fighting was over. An operating room fitted up to meet the requirements of asepsis should be included in the internal arrangement of every modern ship and cruiser. The preservation of the surgical appliances and of the lives of the surgeons should receive adequate attention. Each ship should be medically equipped to deal with her own wounded, as hospital ships cannot be relied on to deal with the injured during active service. Men whose clothes are likely to be ignited by explosives should dispense with as many articles of clothing as possible, as many of the burns which occur are due to the patient's clothing having taken fire; while men, like stokers, who are exposed to the bursting of steam pipes, should have their bodies as completely covered as possible. [F. T. S.]

2.—Colborne speaks of the danger of total destruction of the surgical outfit during a naval battle and suggests that two suitably protected compartments be selected in which to store the instruments and dressings in the time of action. Two compartments well protected and easily accessible should also be selected as dressing stations, so that if one be destroyed the other will be available for use. The surgeon should not expose himself to injury or death. Because of the impossibility of using stretchers during an action, place should be designated on deck where the wounded

could be placed by their comrades. First aid packages should be available for the application of temporary dressings. [F. T. S.]

3.—Turnbull opened a discussion on the prevention of scurvy in the Section on Navy, Army and Ambulance of the British Medical Association. He says the absence of scurvy in Nansen's Arctic Expedition of 1893-96 has not attracted the attention it deserved; particularly because the last British Arctic Expedition, 1875-76, was virtually a failure owing to this disease. Nansen and Johansen were detached from their vessel in the Arctics for 15 months. They were housed in poorly-ventilated and damp huts, without change of clothing, and they underwent great exertions. For about a year they were dependent upon their rifles for their food, and they not only did not have scurvy but also gained in weight. They had no lime juice and the author believes it is because the food they had was pure that they had no scurvy. Hutton believes that the absence of scurvy in the Royal Navy is owing to the short voyages and the ready way in which fresh provisions can be secured. Kirker does not agree that scurvy is due to decomposing food, but thinks that it is caused by the absence of fresh organic substances from the diet. There is not the slightest doubt but that lime juice has been an invaluable boon to the navy. Duke said that fresh meat, fresh fish and fresh vegetables are absolutely necessary in naval and military war. [J. M. S.]

4.—Hutton says that hospital orderlies during war-time are expected to pitch tents, dig trenches and nurse complicated cases. Candidates do not require any previous knowledge of medicine or nursing, although after enlistment they receive a certain amount of training in the military hospitals. He thinks the recruits for hospital service might be obtained from such organizations as the St. John Ambulance Association, which teaches first aid to the injured, etc. [F. T. S.]

5.—Roberts concludes an article on the treatment of abdominal wounds in war as follows: As a rule the conditions in a field hospital are not suitable for performing laparotomy. Many patients with penetrating abdominal wounds recover without operation, and in the majority of those who die the nature of the injury is such that death must result whatever be the conditions of operation, and an exploratory laparotomy may add fresh danger to the patient. When occasions arise in which the conditions approximate those in civil practice, laparotomy should be undertaken for increasing intraperitoneal hemorrhage endangering life, and when there is evidence that perforation of the stomach or bowel probably exists, provided that the patient is seen early enough. [F. T. S.]

7.—Sichel quotes from the health of the navy for 1900, as follows: "There were 305 cases of tuberculous disease in the navy, of which 206 were invalided and 49 terminated fatally." He believes it is the duty of naval surgeons, particularly on board ship, to carry out examination of the sputum systematically. He also believes that every medical man, whenever he gets the opportunity, should urge the necessity for the compulsory notification of tuberculosis throughout the country. [J. M. S.]

11.—Mansfield publishes several illustrations of an ambulance stretcher which he has devised. It consists of an ordinary stretcher with the cross bars fitted to fall in line with the side poles when desired. A combined perineal and chest support runs from the middle of the canvas on which the patient is extended to be attached over the shoulders at the upper extremity of the stretcher. The feet are placed in a canvas bag at the bottom of the stretcher. [F. T. S.]

LANCET.

October 4, 1902.

1. Introductory Address on the Power of Observation in Medicine. THOMAS T. WHIPHAM.
2. Introductory Address on the Advance in Surgery during 30 Years. A. W. MAYO ROBSON.
3. An Address on Knowledge and Wisdom in Medicine. DYCE DUCKWORTH.
4. The Medical Treatment of Appendicitis, with Notes of 3 Illustrative Cases. JAMES BURNET.
5. Myelopathic Albumosuria. T. R. BRADSHAW.

6. Multiple Typhoid Abscesses; Secondary Hemorrhage; Ligature of the Profunda Femoris; Recovery. HERBERT C. JONAS. With a Note on the Agglutinative Power of the Blood in the case.

C. G. SELIGMANN.

7. Notes of 3 Cases of Inoperable Cancer of the Breast Treated by Removal of the Ovaries.

D'ARCY POWER.

2.—Robson discusses the advance made in surgery during the past 30 years in his introductory address before the students of the Yorkshire College. He speaks of the great benefit to be gained from observing the work of others, and refers to the good which he derived from visits to France and America. It is advised that in the early years of a medical career some attention should be given to laboratory work, since in an active practice time cannot be given to this work in later years. He speaks of the excellent work done in American laboratories. The remaining portion of the address is devoted to the comparison of the surgery of 30 years ago with that of to-day.

[J. H. G.]

4.—Burnet discusses the medical treatment of appendicitis, with notes of 3 illustrative cases. He argues that in private practice operation for appendicitis is often refused by the patient or his friends, hence it becomes necessary to institute another method of dealing with the case. For the local pain he advises turpentine fomentations kept constantly applied, a fresh one being substituted as soon as the former one cools. He thinks the application of ice has certain disadvantages. Blisters and iodine are of doubtful utility, and poultices are most objectionable. He thinks morphine in appendicitis is altogether unscientific, as it deranges digestion, interferes with the pulse-rate and obscures the symptoms. For the sickness and vomiting, which sometimes persist for a few days, he recommends ice given at frequent intervals, or iced potash water given in small quantities. The vomiting can best be held in check by giving 15 minims or even 20 minims of the liquid extract of cascara every 6 hours until 45 or 60 minims have been taken. For the frequent micturition, which is sometimes a distressing symptom, he has found the tincture of hyoscyamus in 30-minim doses helpful. Too much attention cannot be given to feeding. He orders a teaspoonful of beef jelly every 2 hours alternately, with a teaspoonful of whiskey at the same intervals. Milk and barley water or milk and potash water he gives in addition. For the thirst, sips of hot water or cracked ice are grateful to the patient. The remainder of his article is devoted to a description of 3 cases. [F. J. K.]

5.—Bradshaw describes a new disease named *myelopathic albumosuria*. He points out that, when it has been established that 2 morbid entities have been included under a common designation, it is usual to regard one of them as a new disease and to mark its individuality by labeling it with a new name. About 12 years ago a case was studied which afterward proved by necropsy to be one of multiple myeloma. In the urine of this patient a peculiar body was found chemically allied to albumin and known as Bence Jones's albumose. At a still later date it was shown that not all the cases of multiple myeloma were accompanied with albumosuria, and the author applies the term *myelopathic albumosuria* to a condition in which albumose is present in the urine and in which affection of the marrow exists. He has collected about 20 cases from personal observation and from the literature. Little is known in regard to its etiology. It is common in the second half of life and has been met with more often in males than in females. The changes in the skeleton found in these cases consist in invasion of certain bones by a soft mass of new growth, the proper osseous tissue undergoing absorption. He considers the condition of the urine pathognomonic of this disease. It contains a proteid closely resembling albumin, but it differs in certain par-

ticulars. (1) It coagulates at a remarkably low temperature, viz., 52°C.; (2) the coagulum is to a great extent dissolved at the boiling-point and reappears on cooling; (3) the coagulum which forms on treatment with cold nitric acid also dissolves on boiling and returns on cooling; and (4) it is readily coagulated by hydrochloric acid. He also describes the symptoms, prognosis, the chemistry and pathology. [F. J. K.]

6.—Jonas reports a case of multiple typhoid abscesses which occurred in a male, 25 years of age, a resident of Ramleh, Alexandria, which resulted in recovery. [F. J. K.]

7.—Power briefly reports 3 cases of inoperable cancer of the breast treated by removal of the ovaries. In 2 instances the patients had passed the menopause, and in these the operation was attended with no benefit. In the third case, however, in which the menopause had not been passed, the operation was followed by an arrest and apparently a retrocession of the cancerous process. [J. H. G.]

MEDICAL RECORD.

October 18, 1902.

1. Statistical Report on Creosote in Pneumonia. I. L. VAN ZANDT.
2. The Results of Treatment of Laryngeal Cancer by Means of the X-Ray. D. BRYSON DELAVAN.
3. Varicocele. CHARLES CHASSAIGNAC.
4. The Early Diagnosis of Pulmonary Tuberculosis. SEALE HARRIS.
5. Some Reflections on Cases of Acute Intestinal Obstruction. H. BEECKMAN DELATOUR.
6. Dulness in Appendicitis. H. T. MILLER.
7. The Doctor and the School Teacher, Can They Not Work More in Harmony? RICHARD COLE NEWTON.
8. Foreign Bodies Accidentally Left within the Abdominal Cavity; How to Prevent the Occurrence. HOWARD LILIENTHAL.

1.—Van Zandt states that in response to a number of queries sent out relative to the value of *creosote* in *pneumonia* he has received more than 75 replies. From a study of these answers and from his own observations for more than 8 years he reiterates his opinion that the use of *creosote*, or carbonate of creosote, in the treatment of acute pulmonary inflammation is one of the greatest life-saving discoveries of the nineteenth century. [T. L. C.]

2.—Delavan is of the opinion that from the meager details which he has been able to secure it would appear that no positive deduction as to the value of the X-ray in laryngeal cancer can be made until the method has been tried upon a larger number of cases than at present, and a considerable period of time must elapse in the study of a given case before it can be pronounced cured. So far results indicate that *lupus* and various other lesions of the surface have responded more satisfactorily than have deep-seated malignant growths. This appears to be true of laryngeal cancer in which the effect of the X-ray has apparently been less satisfactory than in other directions.

[T. L. C.]

3.—Chassaignac presents the following summary of his discussion of *varicocele*: Varicocele is a common disease, from 10 to 15% of males above puberty being affected to a noticeable extent. In the majority of instances it causes little or no trouble. In a considerable proportion it leads to more or less pronounced symptoms, physical or psychical, direct or reflex. Palliative measures are sufficient when the symptoms are not severe. The only radical cure is by operation. Open scrotal ligation and resection is the operation of choice. Suprapubic ligation and resection may be substituted by those who prefer. Subcutaneous ligation is proper in selected cases. [T. L. C.]

5.—Delatour presents a study of cases of acute intestinal obstruction. His conclusions are as follows: The sudden

onset of obstruction of the bowels does not always mean the presence of a recent lesion, especially in those at or beyond 40 years of age. In many cases the symptoms may point to an attack of appendicitis, as the appendix becomes distended by gas or fecal matter. It is best in all cases in which a new growth is suspected, or in which there is much distention, first to make an artificial anus, and to use the cecum for this. At this time do not spend valuable time, and produce some shock, by making a thorough exploration of the entire abdomen, in order to satisfy yourself of the exact condition. Always open the intestine immediately, as it is needful to give relief as soon as possible, and there is no danger of leakage of feces back into the abdomen, provided the exit at the anus is not blocked by too tight dressings. It is better to leave the wound exposed, the nurse being instructed to clean away the fecal matter as it appears. Do not be content to leave these cases with the artificial opening, unless at the primary operation the tumor has been found immovable and anastomosis impossible, for many cases may live months with the tumor *in situ* if the current of fecal matter is diverted by placing the loop of intestine containing it out of the fecal current. [T. L. C.]

8.—Lilienthal states that he never inserts a whole packing or sponge within the addominal cavity. He uses gauze cut in lengths sufficient to permit at least two-thirds of each piece to remain outside the wound and, if no more than one-third of each strip is used as a packing, it is obvious than none can be lost. [T. L. C.]

MEDICAL NEWS.

October 18, 1902. (Vol. 81, No. 16.)

1. The Huxley Lecture on Recent Studies of Immunity. With Special Reference to Their Bearing on Pathology. WILLIAM H. WELCH.
2. Drug Habit; Review of Articles by Drs. Hare and Lott. GEORGE E. PETTEY.
3. Polyhydramnios; Its Differential Diagnosis and Treatment, With the Report of Cases. EDWARD P. DAVIS.
4. Recent Discoveries in the Domain of Etiology. D. H. BERGEY.

1.—Treated editorially.

2.—Petty states that hyoscine does not materially affect the vital functions, or leave after-effects on either the mind or the body of the patient, therefore it should be given until its full physiological effects are manifested if necessary. The administration of this agent should not be left to a nurse, but the physician should remain with the patient in person. The dosage in one case is no index to what will be required in the next. Hyoscine can be safely administered until its full physiological effects are manifested, but there is a vast difference between the physiological or remedial effects of a drug and its toxic effects. The toxic effects of hyoscine are exceedingly dangerous. Another peculiarity of this drug, or of persons taking it, is that in some cases prolonged administration begets intolerance instead of tolerance. [T. M. T.]

3.—Davis says that the treatment by drugs is without value. When polyhydramnios is slight and not increasing, the patient's health remaining good, pregnancy should not be interrupted. When distention increases rapidly and the patient's death is impaired, under thorough antiseptic precautions the cervix should be dilated sufficiently to admit the finger. A pair of uterine dressing forceps, closed, should be inserted, the membranes ruptured, the forceps opened, and a rent made sufficiently large to permit the introduction of the finger. Fluid should be allowed to escape very gradually until the presenting part descends firmly against the cervix. Firm pressure must be made over the abdomen by a many-tailed abdominal binder or broad bandage held by assistants. The patient must be watched, as labor is often precipitate, and the fetus may assume unfavorable positions. Labor should not be hurried in the interests of the child, because the fetus is often deformed. [T. M. T.]

4.—Bergey's investigations upon variola and vaccinia have led him to the opinion that variola is caused by an animal parasite belonging in the class of sporozoa, and that vaccinia is due to a modified form of the same parasite. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

October 18, 1902.

1. Shoe Deformities. E. H. BRADFORD.
2. The Treatment of Prolapse of the Rectum. JOSEPH M. MATHEWS.
3. The Evolution of Urology. An Opening Address Delivered at the Annual Meeting of the American Urological Association. RAMON GUITERAS.
4. The Clinical Value and Treatment of Atonic Dilatation of the Stomach. B. C. LOVELAND.
5. Observations on Muscular Relaxation in its Relation to Women's Diseases. D. ERNEST WALKER.
6. Studies in Stethophonometry. ALBERT ABRAMS.
7. A Case of Acute Diabetes in a Child, Three Years of Age. FRANK B. SWARTZLANDER.

1.—In an extensive article profusely illustrated, Bradford notes the common deformities due to shoes. He describes the correct shoe, which should neither crowd the little toes, cause hallux valgus, nor cause dorsal pressure on account of elasticity of the upper part of the shoe. [M. O.]

2.—Mathews describes the technique of the operation of colopexy in the treatment of prolapse of the rectum, reporting a case in detail. [M. O.]

3.—After describing urology, its scope and history, cystoscopy, catheterization of the ureters, radiography, antiseptics and asepsis, Guiteras notes the advance made in urological therapeutics. After giving the drugs in general use, showing their effect, he discusses the treatment of strictures, prostatic operations, stone in the bladder and renal operations. [M. O.]

4. Atonic dilatation of the stomach is a symptom, not a disease, and is usually found in nervous exhaustion or nervous dyspepsia. In the treatment, Loveland advises correct hygiene, electricity, strong diet and but few medicines. The case histories of 3 patients, with recovery from this condition, follow. [M. O.]

5.—A neurasthenic or neurotic patient with anemia and muscular relaxation generally complains of discomfort and pain not found in a stronger woman. These patients frequently have uterine prolapse, chronic uterine engorgement and endometritis. In the treatment Walker advises massage, electricity and exercise with attention to sleep, rest, diet, fresh air, exercise, digestion and excretion. [M. O.]

6.—Abrams reports a number of experiments in stethophonometry. The stethophonometer has shown that the tonometer is not reliable in measuring bloodpressure. It is of service in distinguishing the overaction of hypertrophy from the delirious action of disturbed compensation. He has also used it in studying the acoustic phenomena associated with the lungs and in determining the value of the different forms of respiratory exercises. [M. O.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

October 16, 1902. (Vol. CXLVII, No. 16.)

1. Annual Oration Before the Maine Medical Association. JAMES R. CHADWICK.
2. Pelvic Cellulitis as a Complication of Uterine Fibroids. A. T. CABOT.

2.—Cabot believes that it is wise in any case of hysterectomy for fibroids that are or have recently been inflamed to inspect the pelvic wall with great care to see if any swelling or induration can be discovered. This search should be directed especially toward the bases of the broad ligaments, where they spread out on the pelvic wall and where their lymphatics enter the glands that lie along the iliac vessels. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

October 18, 1902.

1. Low Lateral Pharyngotomy, for Approach to the Lower Portion of the Pharynx, Upper Portion of the Esophagus and Posterior Surface of the Larynx, With an Illustrative Case. JOSEPH D. BRYANT.
2. The Symptomatology of Calculous Renal and Ureteral Disease. CHARLES LESTER LEONARD.
3. Infrapubic Section of Prostatectomy.
E. WYLLYS ANDREWS.
4. The Disappearance of Opacities of the Crystalline Lens.
WALTER L. PYLE.
5. The Anatomy of the Ocular Muscles and Their Accessory Structures and the Phorias and Tropias.
J. ELLIOTT COLBURN.
6. The Physiology of the Ocular Muscles. E. C. ELLETT.
7. The Association of Graves's Disease With Glycosuria and Diabetes Mellitus. HEINRICH STERN.
8. Endocarditis as a Complication of Pneumonia.
EDWARD F. WELLS.

9. Excision of the Gasserian Ganglion, With Reports of Ten Cases Operated on by the Hartley-Krause Method. JOHN B. MURPHY and JESSE M. NEFF.

1.—See *Philadelphia Medical Journal*, June 21, page 1100.
 2.—See *Philadelphia Medical Journal*, June 21, page 1102.
 3.—See *Philadelphia Medical Journal*, June 21, page 1102.
 4.—Pyle contributes an article entitled the disappearance of opacities of the crystalline lens. He summarizes as follows: (1) There is no question as to the authenticity of many reports of the spontaneous disappearance of senile cataract, and these cases may be explained and classified in 5 groups as follows: (a) Cases in which there was absorption after spontaneous rupture of the anterior or posterior capsule. (b) Cases in which there was spontaneous dislocation of the cataractous lens. (c) Cases in which there was intracapsular resorption of the opaque cortex and sinking of the nucleus below the axis of vision after degenerative changes in Morgagnian cataract, without rupture of the capsule or dislocation of the lens. (d) Cases in which there was complete spontaneous resorption of both nucleus and cortex without reported history of ruptured capsule, dislocation or degenerative changes of the Morgagnian type. (e) Cases of spontaneous disappearance of incipient cataract without degenerative changes or marked difference in the refraction. (2) It is not uncommon for opacities of the crystalline lens or its capsule, the result of traumatism, to disappear, even when the capsule has been penetrated. (3) Too much stress cannot be laid on the value of personal hygiene, treatment of associated local and general disorders, careful and repeated refraction, and the proper use of the eyes in arresting the progress of incipient cataract. (4) In certain complicated cases secondary to nutritional disturbances, lenticular opacities may entirely disappear under appropriate treatment. (5) Generally speaking, the so-called "non-operative" treatment of cataract as practised by advertising charlatans and irregular physicians is worthless, often distinctly dangerous, and consists in no beneficial measures not known and appropriately used by all reputable oculists. [F. J. K.]

5.—Colburn has made observations of 200 patients examined for errors of refraction with the following object in view: To determine the relation of the orbits to the plane of the face in the anomalies of refraction, and the relation of the visual lines to the varying positions of the axes of the orbit, also to obtain suggestions for a possible anatomical cause of the varying so-called anomalies of the extra-ocular muscles and to explain the anomalies of the line of regard. The results of his study were that, as a rule, the visual lines are modified in their directions by the relations of the orbital cavities to the plane of the face, and that their bases are, as a rule, guides to their direction. The exceptional cases prove the rule. Stevens and Risley and others have pointed out the relations between certain types of cranial development to certain anomalies of refraction or direction. The author has, however, been unable to find any measurements which bear upon this subject from the point of view from which it has been his endeavor to present it, and it may be summed up in the following: The atypical development of the bony structures, connective tissue bands and the muscles of direction are the predis-

posing anomalies of the lines of regard; modifications of innervation are the exciting causes. [F. J. K.]

- 7.—See *Philadelphia Medical Journal*, June 21, page 1094.

- 8.—See *Philadelphia Medical Journal*, June 21, page 1096.

9.—Murphy and Neff present a complete review of the subject of excision of the Gasserian ganglion, and make brief reports of 10 cases operated upon by the Hartley-Krause method. After briefly speaking of the anatomy they deal with the pathology, etiology, symptomatology and prognosis of tic douloureux. The pathological changes are both varied and inconstant, ranging from slight irregularities in the size and shape of the nerve cells and fibers to the grosser lesions, such as tumors, endarteritis of the vessels supplying the ganglion, and marked connective tissue hyperplasia. Tumors are rare, Keen being able to find but 2 in addition to his own. After enumerating the various causes of the conditions and mentioning its greater frequency in women than in men, the authors state that probably in the great majority of cases the disease process is ascending, beginning in the peripheral nerve filaments and later progressing to and involving the ganglion. Heredity plays no part in the etiology. Without operation the condition goes from bad to worse, becoming finally intolerable. Castor oil and strychnine are the remedies which accomplish most good, but these at best afford only temporary relief. In the latter stages mental derangement is not uncommon. Dana takes a more optimistic view of the prognosis than that just given. Removal of the ganglion in the great majority of cases effects an immediate and permanent cure. The authors present a résumé of the various operative procedures devised for the relief of tic. Neurotomy was first suggested by Albinus and Galen and was carried out on the infra-orbital branch by Schlichting in 1748. Neurectomy was first performed by Abernethy in 1793. The removal of the Gasserian ganglion was first recommended by J. Ewing Mears in 1884. This operation was first performed by William Rose, of London, in 1890. The Hartley-Krause operation and the operation of Cushing are minutely described. The most serious complication in the performance of intracranial operations is hemorrhage. This may arise from the middle meningeal artery, from the venæ Santorini and from the cavernous sinus. For venous hemorrhage the tampon is all-sufficient whether the blood comes from the venæ Santorini or from the sinuses. Bleeding from the middle meningeal artery should not be controlled by tampons except when the tampon is inserted in the foramen and allowed to remain. When the artery runs in a canal in the bone, the canal wall can be readily compressed with a punch; when a tampon is employed to control this arterial bleeding, it only serves to cover the point of hemorrhage. The ligation of the external carotid is legitimate and rational in case of hemorrhage, but is not thought necessary as a preliminary procedure. It is thought that the greatest trauma to the brain has been produced by tampons during and after operation. Sepsis is a complication which has occasionally arisen after operation. One of the patients reported by the authors died of a septic meningitis. Recurrence of pain after the removal of the ganglion is extremely rare. The mortality of the operation is about 15%. The operation should always be considered a grave procedure and only justifiable when one of the following indications is present: (1) When all internal medication and the removal of external irritants have failed. (2) When all branches of the nerve are involved in the pain. Here it should be a primary operation. (3) When individual branches only are involved and relief has not been secured after the peripheral operation. (4) In cases in which formerly divisions at the base were indicated.

AMERICAN MEDICINE.

October 18, 1902.

1. Ruptured Pus-Tubes.

CHARLES GREENE CUMSTON.

2. Pericarditis as a Terminal Infection of Chronic Bright's Disease. HERMAN B. ALLYN.

3. The Discovery of Astigmatism and Eyestrain.

GEORGE M. GOULD.

4. Types of Infection Produced in Man by Intermediate Members of the Typhoid-Colon Group of Bacilli.
WARREN COLEMAN.
5. Laryngeal Symptoms Complicating a Case of Purpura Hemorrhagica. JOSEPH S. GIBB.
6. Heatstroke Followed by Nonfatal Lightning Stroke; Report of a Case, with Sequels.
GEORGE H. TORNEY and WILLIAM E. MUS GRAVE.

7. A Case of Multiple Gunshot Wound of the Intestines; Laparotomy; Recovery. E. B. MARSH.
8. The Teaching and Practice of Surgery in the Vienna Allgemeine Krankenhaus. NICHOLAS SENN.

1.—Cumston discusses the condition of ruptured pustules. He reports 4 cases in his own experience.

[T. L. C.]

2.—Allyn contributes an article on pericarditis as a terminal infection of chronic Bright's disease. He reports an interesting case in which the pericarditis was of a hemorrhagic type and in which the diagnosis was by no means simple. He discusses the differential diagnosis of pericarditis with effusion, dwelling especially on 3 points in this condition: (1) Dulness in the fifth interspace to the right of the sternum, (2) the value of fluoroscopic examination, and (3) the presence of pulsation in the vessels of the neck which may be as marked as in aortic disease.

[T. L. C.]

3.—Gould contributes an article of historical nature dealing with the discovery of astigmatism and eye strain.

[T. L. C.]

4.—Coleman concludes in this issue his study of the types of infection produced in man by intermediate members of the typhoid-colon group of bacilli. He discusses the psittacosis type. Psittacosis is defined as an infectious disease transmitted to man by parrots affected with the same disease. Clinically this condition is easily mistaken for typhoid fever. [T. L. C.]

5.—Gibb presents a clinical note on the laryngeal symptoms complicating a case of purpura hemorrhagica. The pathological condition which existed in this patient was without doubt an hemorrhagic edema of the submucosa of the larynx similar to the subcutaneous purpuric spots which occur in the simple cases of purpura. An interesting feature of the case was the nature of the infection. Three weeks before he was admitted to the hospital he had been vaccinated, and ten days afterward the legs became swollen and a hemorrhagic rash appeared on them. The condition proved fatal. [T. L. C.]

6.—Torney and Musgrave present a clinical note of a patient who suffered from heatstroke, followed by a non-fatal lightning stroke. Profound nervous symptoms have followed these misfortunes. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

July 31, 1902.

1. The Number of Leukocytes in the Blood of Pregnant, Child-bearing and Puerperal Women.
W. ZANGEMEISTER.
2. A Symptom of Aneurysm that has Previously Been But little Noted. DORENDORF.
3. On the Effect of Ticks upon Animal Blood.
P. GRUETZNER.
4. A Number of Instances of Successful Bottini Operations in Persistent Complete Retention of Urine.
A. FREUDENBERG.
5. A Contribution to the Statistics of Bottini's Dissection of the Prostate. RÖRIG.

1.—A study of nonpregnant women was carried out first, and it was found that the leukocytes varied from 4,000 to 21,330, even when digestive leukocytosis was excluded. These women were all well and strong, and hard workers. In the latter months of pregnancy, it was found that the leukocytes were within the same limits as in health. At

the time of labor, almost all subjects showed an increase in the leukocytes; and during labor, the numbers constantly increased at repeated counts. This increase, however, stopped toward the end of labor. Especially large counts were obtained in patients that had difficult labor, or in whom there were particularly active pains. The leukocytes at this time went as high as 30,000 or over in hard cases. In the puerperium, very high counts were found only when there was marked absorption of decomposed lochia; but even when there were evidences of slight infection, the leukocytes often did not rise. The authors believe that there is no prognostic or diagnostic value to be placed upon leukocyte counts in the puerperium. [D. L. E.]

2.—The sign discussed by Dorendorf is the absence of the groove above the left clavicle—the groove, indeed, often being replaced by a prominence; at the same time, the left external jugular is often much fuller than the right. Pressure from above downward temporarily overcomes the swelling. The prominence is due to obstruction to the on-flow of the blood in the veins emptying into the left innominate vein. Mediastinal tumors also cause this symptom, but it is more likely to be bilateral; the prominence may likewise be seen in emphysema of the lungs, but this is unilateral only with extreme rarity. [D. L. E.]

3.—If one examines a tick that has sucked itself full of blood, one finds a thick, dark-red mass, which has the color of completely reduced blood, and under the microscope proves to contain large numbers of hemoglobin crystals. The digestive juices of the tick, then, appear to have deprived the blood of its oxygen and to have dissolved all the bloodcorpuscles. The animal evidently lives upon the free hemoglobin. [D. L. E.]

4.—In the cases reported the retention of urine had persisted for a very long time; in one case for over ten years, and in another for over 27 years. In one case there had been complete retention of urine for over 5 years, and the operation had produced a cure that had, at the time of the report, persisted for over 4 years. The operation is strongly recommended. [D. L. E.]

5.—Rörig has operated upon 23 cases of hypertrophy of the prostate, 4 with chronic absolute retention and 19 with chronic relative retention. Of the 4 of the first variety, 3 were cured and one unimproved. Of the 19 relative cases, 9 were cured, 6 improved and 4 unimproved. There were no fatal cases. [D. L. E.]

August 7, 1902.

1. Pearl Disease and Human Tuberculosis. M. WOLFF.
2. Fistula Between the Sigmoid Flexure and the Bladder, Resulting from a Perforated Diverticulum of the Intestine. WALDVOGEL.
3. The Subcutaneous and Submucous Use of Paraffin.
ECKSTEIN.
4. Two Cases of Scalding of the Ear. TREITEL.

1.—Wolff reports a case of primary tuberculosis of the intestine in which there was no question that the disease was purely of intestinal origin. Injections of the pulp of the spleen into guinea-pigs produced tuberculosis. The organs of these guinea-pigs were then injected into a calf that had previously been tested with tuberculin and been found free from tuberculosis. A mass developed at the point of injection, and a month after the injection the animal reacted to tuberculin. There were subsequently repeated reactions to tuberculin. Eighty-three days after the injection the animal was killed, and it presented all the usual signs of pearl disease. The course of the disease and the results of the post mortem were entirely in accord with the usual conditions in pearl disease; and the author believes that the case shows definitely that a human tuberculosis, primary in the intestine, can cause pearl disease in animals. He thinks that the apparently rare occurrence of primary intestinal tuberculosis is no proof that food tuberculosis is itself rare. He insists that all the regulations possible to control tuberculosis in animals must

be made and continued. He also reports the injection of sputum from human cases of tuberculosis into a calf, with the production of a local area of tuberculosis and tuberculosis of the neighboring glands. This is evidence that animals are not entirely resistant to human tuberculosis.

[D. L. E.]

3.—Eckstein reports a series of cases in which he has injected paraffin subcutaneously, especially for the purpose of overcoming deformities of the nose. He finds it much more satisfactory than vaseline, as there is no probability at all of its being absorbed. He also describes certain cases in which, without deformity, he operated in order to provide patients with features that were more satisfactory to themselves than those with which nature had provided them. [D. L. E.]

August 14, 1902.

1. Technique and Results of the Resection of the Ankle Joint. KOENIG.

2. The Closing of Defects of the Skull by Bone Plates Taken From the Neighborhood. E. HOFFMANN.

3. Contribution to the Question of the Present Distribution of Malaria in Northwest Germany. P. MUEHLENS.

4. A Case of Tumor of the Cauda Equina. E. VOLHARD.

1.—König contributes some remarks concerning some work that he has had done by Mass, which appeared in the *Archiv für klinische Chirurgie*. [D. L. E.]

2.—Hoffmann's method is distinctive chiefly in the point that he takes his bone-plates from the neighborhood and turns them with the smooth surface downward, the plates in the process of removal assuming a somewhat concave, instead of a convex, surface. In this way smooth surfaces are turned inward, instead of the rough ones. The author recommends it in trephining the intact skull, when Wagner's method cannot be carried out or the resected bone cannot be re-implanted; also to close defects produced by subcutaneous trauma or by tumors: in the treatment of complicated fractures, when parts of the skull have been lost or when they do not seem aseptic, to close openings left by suppurating fractures; and to close defects produced by syphilis, tuberculosis and other suppurating processes. [D. L. E.]

3.—Mühlens finds that malaria has recently increased in the neighborhood of Cuxhaven, that a number of cases have been very carelessly treated, and that it is probable that a further spread of the disease will occur in this region. Anopheles were found in large numbers in the vicinity. In the neighborhood of Zetel and Bockhorn, also, he found a series of cases and discovered numerous anopheles.

[D. L. E.]

4.—Volhard reports at length a case of glioma of the cauda equina in a man of 47, in which the most marked objective symptoms were paralysis of the bladder and of the levator ani, weakness of the urinary and anal sphincters, disturbance of ejaculation, incomplete erection, paresis of the flexors of the leg and of the dorsal flexors of the foot and toes, paralysis of the plantar flexors, paresis of the peroneals, reduction in the bulk of the muscles whose function was disturbed, and quantitative reduction in the electric irritability. The adductors, the inward rotators, the flexors of the thigh, and the extensors of the leg were undisturbed. The vesical and rectal reflexes and the Achilles-tendon reflex on the left were absent. The plantar reflexes were present on both sides, as was the cremasteric reflex. The sensory changes were very slight. The diagnosis of tumor of the cauda equina close to the conus was made. Operation was advised and agreed upon. Soon afterward, however, the patient went into uremia and died. The post mortem showed that the diagnosis had been entirely correct, and that it would have been possible to remove the tumor readily. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

July 29, 1902. (No. 30.)

1. The Autolysis of the Puerperal Uterus.

L. LANGSTEIN and O. NEUBAUER.

2. Stenosis in Amyloid Degeneration of the Trachea.

W. COURVOISIER.

3. The Disinfection of the Hands.

C. LAUENSTEIN.

4. Modifications of the Subcutaneous Employment of Arsenic According to Ziemssen-Speth. J. JESIONEK.

5. Diagnostic and Therapeutic Remarks Upon Ulcer of the Stomach. AGERON.

6. The Spinal Reflex in Hysteria. STEINER.

7. Injuries to the Breast, Especially to the Heart.

WETZEL.

8. The Clinical Significance of Movable Retroflexed Uterus. A. THEILHABER.

9. Notes Upon the Article "Intention Spasm of Speech, the So-called Aphthongia." W. BECKER.

10. When Did Aretaeus of Cappadocia Live?

R. KOSSMANN.

11. The Prussian Medical Council. J. NEUBERGER.

1.—Langtein and Neubauer obtained the uterus from a woman who had aborted in the seventh month of pregnancy and died 2 days later from insufficiency of the heart. The organ was removed, hashed, one-half cooked, both halves placed in water and toluol and put in an incubator. At the end of 6 weeks an analysis showed that the noncoagulable magnesia was increased in the portion that had been subjected to autolysis without cooking. Another uterus in normal condition obtained from a multipara was treated in the same way and also showed an increase of the noncoagulable over the coagulable nitrogen. The authors conclude that autolytic functions are a property of uterine tissue. [J. S.]

2.—Courvoisier reports the case of a woman, 66 years of age, who had a cough with some hoarseness. Finally this increased until she had severe dyspnea with cyanosis. This was relieved by injections of morphine, but later recurred and tracheotomy was performed. This gave little relief and the patient finally died. At the autopsy there was found thickening of the posterior wall of the larynx, due to amyloid degeneration. There was also brown atrophy of the heart, a sclerotic focus in the medulla and bilateral bronchitis. A few similar cases of this condition from the literature are mentioned. [J. S.]

3.—Lauenstein discusses disinfection of the hands and states a remarkable instance in which he operated upon a phlegmonous inflammation of the leg and a few hours later did a laparotomy in which it was necessary to handle the intestines extensively. Subsequently he developed infection of the hand due to the same micro-organism that had caused the phlegmon in the leg and which was evidently acquired during the first operation. The second case, however, never developed any symptoms of infection. The son of the first patient also developed a severe infection of the leg which he had scratched after assisting the physician at the operation upon his father. Before each operation the author sterilized his hands according to the Ahlfeld method and he considers that the results show its efficiency. [J. S.]

4.—Jesionek states that the preparation of arsenic for subcutaneous injection according to the Ziemssen-Speth formula has certain essential differences from that suggested by Kobner. It is prepared as follows. To one gram of arsenous acid one cc. of water containing 0.2 gm. of sodium hydroxide are added. A combination results which is precipitated as a white, fine powder on the addition of absolute alcohol. This powder dissolved in water forms the basis of the injection. It is very slightly alkaline and does not produce much local reaction. It can be rendered absolutely sterile. The effect of the arsenic medication is much prompter when used hypodermically. The dose usually is about 0.01 sodium arsenate, which, however, must not be given in the beginning. [J. S.]

5.—Agéron has observed several cases of gastric ulcer in which free hydrochloric acid was absent. Even when the pylorus was not obstructed there may be interference with the motor functions of the stomach. Often the patients complain of pain and discomfort for a long time, although there may be no objective symptoms of ulcer. However, in these cases there are often signs of motor insufficiency. Therefore it seems reasonable carefully to test motor capacity of the stomach in all suspected cases. He mentions 2 patients, one of which, a young girl, had had pain and vomiting for some time, which was supposed to be due to chlorosis. One morning, however, she was found dead in bed as a result of a severe gastric hemorrhage. The second patient, a woman of about 35 years, had had period-

ical severe gastric pain supposed to be due to some nervous hysterical basis. She also died suddenly as a result of gastric hemorrhage. In the treatment of gastric ulcer it is necessary to keep the patients for a long time on a liquid diet, and sugar is an important constituent of this. The patient is best kept either flat upon the back with the pelvis elevated or in a position half lying on the right side. Under these circumstances the patient often improves remarkably. The same position is valuable in gastroptosis. The liquid treatment consists in the ingestion of considerable quantities of bismuth suspended in oil. [J. S.]

6.—Steiner reports a case of hysteria; patient had received a severe injury, with probable cerebral concussion, on the railroad. He had headache, pain in the back, weakness of memory and was very emotional. There were no muscular atrophies, no disturbances of motion. The reflexes were generally present, but the left knee jerk was stronger than the right and on the left side there was an indication of foot clonus. A year and a half later the patient's condition was about the same with the exception of very marked sensory disturbances consisting in anesthesia to touch and pain in the legs with the exception of the soles of the feet, hyperesthesia on the anterior surface of the body, normal sensation on the back and head, loss of sensation in the arms. The triceps and knee reflexes had completely disappeared and could not be elicited by re-enforcement. Nine months later there were still further changes in sensation but the reflexes were about the same. The case shows that the cutaneous reflexes may persist when there is anesthesia of the skin, whereas the tendon reflexes may be lost. The disappearance of the knee jerk is not necessarily a proof that hysteria is not present. [J. S.]

7.—Wetzel reports some interesting medicolegal necropsies. In 2 cases, although the ventricle was penetrated by stab-wounds, there was little blood in the pericardium. In the first case the wound was over a centimeter long but its edges were firmly glued together by clot. In other cases apparently slight injuries produced fatal results. In one case 2 costal cartilages were incised on the right side and the patient died of suppurative pericarditis and pleuritis. In 2 cases in which the cardiac ventricle was injured there was inflammation of the muscular tissue of the heart around the wound. Occasionally a wound produced by a stab shows a long triangular flap of skin due to the fact that the knife is held with the hand prone and the edge is turned outward. He mentions several such cases. In other instances the ribs were penetrated by the blade. Often there are apparently 2 parallel wounds, one smaller than the other. This is probably due to the movements of the injured man backward and then forward. Not infrequently the wounds produce injuries of the bloodvessels of the thorax, either the intercostal arteries, the axillary arteries or the mammary arteries. In one interesting case of stab wound of the heart it was found that the whole vascular system was hypoplastic. In another case there was situs transversus visceræ and a wound that presumably would have injured the right, had actually penetrated what corresponded to the left ventricle. In one case, in spite of a double wound penetrating the wall of the right ventricle, partial adhesion had occurred. In another the wound penetrated not only the right ventricle but also the intraventricular septum. In another case, a man who shot himself in the breast with a revolver, it was found that the bullet had penetrated the upper lobe of the lung, the pericardium, the anterior and posterior walls of the right auricle and the whole of the lower lobe of the right lung. Notwithstanding this severe injury the patient had lived three-quarters of an hour, being able to leave his bed and walk 12 steps from it and return. Finally he mentions a case of severe contusion of the heart-region followed by pain, the patient recovering enough to resume work, but finally some months later he became weak, melancholy and died. There were found pleuritic lesions on the left side and symptoms of an old valvulitis. [J. S.]

8.—Theilhaber, commenting upon Wormser's article, states that incarceration of the pregnant retroflexed uterus is exceedingly uncommon. The earliest symptom is of course the discomfort of urination. He states that many authorities have claimed that the disturbances are chiefly neurasthenic in character. [J. S.]

9.—Becker believes that the patient with intention spasm

of speech described by Stenert is really an instance of extreme stuttering and he mentions several points of similarity between the two conditions. [J. S.]

10.—Kossmann believes that Aretæus probably lived before Archigines, and that therefore we must believe that he lived at a much earlier time than that usually given. [J. S.]

August 5, 1902. (No. 31.)

1. Prophylaxis of the Septic Infection of the Eye, Particularly Occupation Injuries. Contribution to the Extirpation of the Tear Gland. T. AXENFELD.
2. Report upon a Ruminating Family. L. MUELLER.
3. The Treatment of Extra-uterine Pregnancy. A. RIECK.
4. A Case of Carcinoma of the Cervix as an Obstruction to Birth at the End of a Normal Pregnancy. BAMBERGER.
5. The Question of the Effectiveness of Collargol. R. TROMMSDORFF.
6. The Etiology of Eczema. HEUBEL.
7. Medical and Botanical Notes. III. Menabea Venenata (Baill) Rediviva. A. MODEL.
8. The Widal Serum Reaction in Weil's Disease. L. ZUPNIK.
9. Social Legislation and Ear Disease. O. KOERNER.
10. The History of the Extraction and Expression of the After-Coming Head. G. KLEIN.

1.—Axenfeld, after a discussion of various causes that lead to inflammation of the eye, lays particular emphasis upon any interference with the outflow of the tears. When operating for cataract he is in the habit of washing out the tearducts thoroughly in order to be sure that no obstruction exists. In those cases in which such an obstruction is present he believes that extirpation of the tearsac offers one of the best prophylactic measures against infection. In cases of infection due to occupation it frequently happens that the tearsac is diseased, and under these circumstances the therapeutic measure is its extirpation. He describes very carefully the improved technique for this operation, which is simple, practical, without danger and is usually not followed by an interference with the outflow of the tears. [J. S.]

2.—Müller reports three cases of rumination occurring in a father and two sons. In the case of the father death occurred as a result of carcinoma of the wall of the stomach. The cardia was found to be abnormally wide, and the whole esophagus showed cylindrical dilatation. The second case was carefully studied, and it was found that a short time after eating, a mouthful of food was brought up from the stomach accompanied by a very slight effort. On one occasion the food brought up was collected in a beaker, and it was found that in the course of half an hour the entire meal was returned. The reaction of these particles was slightly acid, but no free acid was present. A test-meal withdrawn one hour after ingestion showed free hydrochloric acid, pepsin and an acidity of 55. The stomach was considerably dilated. The patient was in the habit of eating rapidly and large quantities. The rumination was rather agreeable than otherwise. His brother was not observed, but wrote that he had practically the same symptoms. Müller does not believe that we have sufficient proof that rumination is an atavistic phenomenon. [J. S.]

3.—Rieck discusses the treatment of extra-uterine pregnancy. He believes that, considering the various methods, in ordinary cases the best mode of procedure is vaginal incision. In 1,000 cases operated upon by Martin it was not necessary to extirpate the uterus on account of hemorrhage. All the disagreeable results of an abdominal incision are avoided by this method, and when the operator is sufficiently practised in vaginal operations it is really easy. Among the advantages are the fact that it is not necessary to place the pelvis in a high position, the organs of the abdominal cavity are not handled, and there is no opportunity for cooling the body. He mentions 2 cases in which he operated successfully by this method, although there appeared every indication of fatal hemorrhage. [J. S.]

4.—Bamberger mentions the case of a woman pregnant for the seventh time in whom birth did not occur for 5 days after the rupture of the membranes. He was then called in and was able to determine a carcinoma of the cervix. As the child appeared to be healthy, and as the mother was already infected, he made a sufficiently deep cervical incision to enable him to do version and extraction. The mother died on the third day of septic peritonitis, but the child lived. He agrees with the majority of authors that in all such cases the life of the child is the first consideration. [J. S.]

5.—Trommsdorff has performed a number of experiments upon animals in order to determine whether collargol is an efficient general antiseptic. He employed rabbits, and in 9 cases had only negative results, using doses which would have been maximum doses for human beings. He therefore does not believe that it is efficient. [J. S.]

6.—Henbel reports an interesting case of eczema occurring in a young child which was cured by cutting off an excessive supply of salt which was given to the cow from which the child's food was obtained. The second attack was apparently due to an excessive quantity of salt given to a herd of cows from whose mixed milk her food was obtained. This was cured by the same method. There therefore seems every reason to believe that in this case the eczema was caused by the employment of milk from cows who received an excessive supply of salt. [J. S.]

7.—Model gives a careful description of the *menabea venenata*. It is doubtful whether this plant will be used with advantage in medicine. [J. S.]

8.—Zupnik has obtained a positive Widal reaction in 4 of 6 cases of Weil's disease, 6 of cholelithiasis, one of cholangitis and one of carcinoma of the liver, all of which were complicated by icterus. He believes that Eckhardt is mistaken in thinking that a positive Widal reaction in Weil's disease indicates its relation to typhoid fever, and himself considers it rather a symptom of the presence of icterus. [J. S.]

9.—Körner discusses the relation of the medical profession to ear disease in connection with certificates regarding the nature and degree of injury, capacity for work, etc. [J. S.]

10.—Klein gives a careful history of the extraction of the aftercoming head, and the various procedures employed for its accomplishment from the time of Hippocrates to the present day, particularly studying the works of Guillement, father and son. [J. S.]

August 12, 1902. ((No. 32.))

1. Contribution to the Knowledge of the Secretion of Hydrochloric Acid. M. CLOETTA.
2. The Production of Hemolysis Amboceptorum by the Injection of Serum. P. MUELLER.
3. Treatment of the So-Called Plastic Induration of the Cavernous Bodies of the Penis.
E. GALEWSKY and W. HUEBENER.
4. The Induction of Labor in Narrow Pelves. KROENIG.
5. A New Laxative 'Purgatin.' K. v. HOESSLIN.
6. The Etiological Relations of Chorea Minor to the Infectious Diseases, Particularly Rheumatic Disease.
G. KOESTER.
7. Experience in the Application of Turpentine Oil in Inflammation of the Appendix and Related Conditions.
M. MAYER.
8. Fatal Hemorrhage in the Omental Bursa with the Clinical Picture of Acute Obstruction of the Intestine.
K. GRASSMANN.
9. The Toxicology of Phosphorus. K. STICH.
10. Cystoscopic Technique. F. SCHLAGINTWEIT.
11. Intention Spasm of Speech: The So-Called Aphthongia.
Reply to Dr. Becker's Criticism of My Article in No. 27. H. STEINERT.
12. Disappearance of the Patellar Reflex in Pneumonia.
LUTHJE.
13. Remarks Upon the Article: "Investigations Upon the Physiology and Pathology of the Functions of the Ureters and Kidneys, with Especial Consideration of

the Diluting Activity of the Kidneys After the Ingestion of Liquids.

G. KOEVESI and W. ROTH-SCHULZ.

14. Professor Dr. Richard Foerster. EVERSBUCH.

15. An Old Enemy to Physicians.

16. The Relations of the Royal District Physicians.

HEISSLER.

1.—In order to determine whether there were any histological changes associated with alteration in the gastric juice, Cloetta took 4 dogs of the same litter and fed 2 exclusively upon fat milk and 2 upon raw meat. The gastric juice of the first pair was persistently deficient in hydrochloric acid. The gastric juice of the other pair showed 2.5 per mille of free hydrochloric acid, and the hemoglobin in both pairs was normal. At the end of 15 months the 4 dogs were killed and specimens removed from different parts of the stomachs. It was then found that there was absolutely no difference in the histological characteristics of the mucous membrane of the stomach, or in the development of the glands, or in the character of the cells composing the glands. It seems unlikely then that there is any necessary histological basis of hyperacidity or subacidity, and that any improvement which may be produced in the character of the gastric juice by diet, is not likely to persist after the diet has been discontinued. The examination of portions of the gastric mucous membrane obtained by the sound from living persons can be of no value. It is not possible, however, from these experiments to state definitely whether there may not be some slight alteration in the parietal cells of the glands in cases of hyperchlorhydria. If there is any such association, the excessive secretion of gastric juice may be regarded as a neurosis. [J. S.]

2.—Müller has shown that certain normal blood serums possess antihemolytic qualities with reference to the hemocytolytic qualities of other normal serums, and that not infrequently it was necessary to warm the active serum to 55° or 60° before its antihemolytic qualities were evident. The explanation which Müller suggests is that the fresh guinea-pig serum contains an antihemolytic substance that is united to the thermolabile complement which is destroyed or split off by warming, and that, when it is rendered inactive, the haptophore group occur in the guinea-pig serum, which is capable of anchoring and neutralizing the hemolysin of the rabbits. If this explanation is true, it should be possible to immunize the antihemolytic bodies by the injection of serum that has been rendered inactive. Müller therefore took some pigeons, injected into them the fresh guinea-pig serum thus, into one group the active, and into another inactive serum. It was found that the blood of pigeons treated with inactive serum possessed the capacity of inhibiting the action of the guinea-pig serum, and it appeared at first as if there actually was an anti-antihemolysin. However, if the serum was warmed, and a quantity of rabbit serum insufficient to produce solution added, it was found that solution, nevertheless, occurred. Therefore the apparent anti-antihemolytic action was really a true hemolytic action, and the only quality that had developed was an amboceptor that acted against guinea-pig blood. As this amboceptor must unite with the receptor according to Ehrlich's theory, it follows that the blood contains receptors similar to those found in the blood corpuscles. This serves to explain why the inactive guinea-pig serum has antihemolytic qualities, because it contains receptors similar to those found in the red blood corpuscles which unite with the amboceptors of the hemolytic serum. It must be noted, however, that the results of these experiments are somewhat variable. [J. S.]

3.—Galewsky and Hübener report a case of induration of the corpora cavernosa, occurring 23 years after luetic infection, which caused intense pain. All other measures proving futile, the indurated area which consisted of connective tissue, was carefully dissected out, and the patient recovered completely, after having been under observation 3 years. [J. S.]

4.—Krönig discusses the liability to injury and the different methods of treating contracted pelves. For this purpose he has carefully collected the statistics of about 1000 cases of contracted pelvis occurring in 15,000 women in the Leipsic maternity service. He divides these into various groups, according as the true conjugate is more or less than 7 cm. Those more than 7 cm. he again subdivides into those with the true conjugate between 9.5 and 8.5 in the first degree, and those with the true conjugate between 8.4 and

7 cm. in the second degree. His statistics show that in 127 primiparæ of the first degree operations were only required in 7 cases, the others being delivered spontaneously. In 228 multiparæ operations were required in 21 cases. In those of the second degree of 42 primiparæ operations were required in 12, and in 84 multiparæ operations were required in 38. These operations were as follows: Prophylactic version, high forceps, induced early labor, symphyseotomy, and Cesarean section. Krönig discusses these operations as follows. The first 3 are of doubtful utility; the last 2 of certain benefit to the child. Prophylactic version does not appear to be of much advantage; at least, the statistics of clinics in which it is employed compared with those in which it is not employed do not show that it prevents injury to the mother, or that it saves the life of the child. High forceps are theoretically of little use excepting in those cases in which the head is already engaged in the superior strait and there is evidence that the child is becoming asphyxiated. However, they are dangerous to the mother, and Krönig believes that whenever the larger diameter of the head has not engaged in the superior pelvic ring, forceps should not be used. The low forceps, however, are of considerable value in hastening the birth after the head is fully engaged. Artificially induced premature labor is now being generally abandoned, because it gives the child a much less chance to survive. The operations of symphyseotomy and Cesarean section nearly always serve to save the child. The technique is now so perfected that the mortality in either is about 2%; the advantage of the symphyseotomy being that it is possible to wait until the last moment before undertaking any interference. Symphyseotomy, however, cannot be employed if the true conjugate is less than 6.5 cm. Cesarean section is a much simpler operation, and it is possible to remove the child in the space of a very few minutes. The question often arises whether it is justifiable in cases of difficult labor to destroy the living child for the purpose of saving the mother—the danger of one of these 2 operations. This is, of course, a question which can only be answered in individual cases. It appears, however, that at present the German law is that the physician is liable for murder if he destroys the living child, and for manslaughter if a woman dies upon whom he has performed either of these operations. [J. S.]

5.—von Hösslin discusses purgatin, which he finds possesses many advantages as a laxative. The patient does not become accustomed to it; it usually produces a soft movement even when there has been much fecal impaction, and small doses serve to keep the intestines in good condition. The regular dose is about one gm. taken at night, but as a persistent laxative 0.5 gm. is often sufficient. The only objection is that it often takes 24 hours to act. [J. S.]

6.—Köster, after a discussion of the literature regarding the association of chorea with infectious diseases, gives in tabulated form the results of his investigations in 86 cases. It appears from these that, although articular rheumatism, endocarditis and sore throat are frequently associated with chorea, there is often some other infectious process present. In 35 other cases that were under his care it was impossible to detect any relation to infectious processes excepting in 4 cases in which there were evidences of old chronic tonsillitis, one having in addition valvular heart disease. He concludes that as long as it is impossible to isolate from the blood of patients suffering from chorea any organism that can be supposed to be the cause of the disease, it is not permissible to suppose that other active etiological factors may not be present, such as psychical shock, the nervous disturbances that occur at puberty, during pregnancy, etc. [J. S.]

7.—Mayer, having used turpentine oil with much success in a case of empyema, and believing that it possesses an antiphlogistic and absorbing quality, has employed it in cases of inflammation of the appendix. He uses it in doses of several drops 3 or 4 times a day, given either in an emulsion with the yolk of eggs, or in mixtures with brandy, sugar, tincture of cinnamon or other substances. It has certain disadvantages, particularly the production of strangury, or in cases of infiltration of the lung having a tendency to cause pulmonary hemorrhage. Its advantages are that it diminishes the pain, causes the exudate to appear early, and probably stimulates the organism to remove the cause of irritation. The histories of 12 cases are appended. [J. S.]

8.—Grassmann reports the case of a man, 54 years of age, apparently healthy, who suddenly, while sitting at a

table, was seized with severe pain in the abdomen. Three hours later he was obviously collapsed, responded to stimulation, but presented all the symptoms of intestinal obstruction. The following day laparotomy was performed and a large amount of blood found in the great omentum. This was evacuated, the cavity packed with gauze, but the patient died the following day. At the autopsy the hemorrhage was found to come from the liver, in the Spigelian lobe of which a large adenoma was found. These cases are exceedingly rare. [J. S.]

9.—Stich discusses some of the relations of phosphorus to various substances, particularly turpentine which he believes prevents its oxidation and will for a time hold it in solution. From this solution it may crystallize into spermaceti-like masses. It is possible that the administration of turpentine in phosphorus poisoning is of advantage. [J. S.]

10.—Schlagintweit states that he believes that in tumors of the bladder the cathetercystoscope is of value, although he complains that Goldberg has expressed a contrary opinion. He mentions the excellent results he has had in a series of 400 cystoscopic investigations. [J. S.]

11.—Steinert replies to Becker that the difference between intention spasm and stuttering is that in the former the spasm occurs whenever an attempt is made to utter any sound whatever, whereas in the latter it is much worse with some consonants than with others. [J. S.]

12.—Luthje has also observed the disappearance of the patellar reflex in a number of cases of acute pneumonia. He does not believe that this sign would be of any value in the differential diagnosis. [J. S.]

13.—Kövesi and Roth-Schultz insist that they were the first to call attention to the value of the disturbances in dilution of the urine after the ingestion of liquids, as a sign of renal disease. [J. S.]

14.—Eversbusch contributes a sympathetic tribute to Dr. Richard Foerster, calling particular attention to his great service in the field of ophthalmology. [J. S.]

August 19, 1902. (No. 33.)

1. The Persistence of the Effect of the Sanatorium Treatment of Cases of Pulmonary Tuberculosis. F. REICHE.
2. The Relations of the Movements of the Body, the Warmth of the Body and Albumosuria to One Another and to Fever in the Course of Tuberculosis. G. SCHROEDER and T. BRUEHL.
3. The Diagnosis of Congenital Tuberculous Infection. G. STICKER.
4. The Question of the Genesis of Tuberculosis. G. SCHMORL.
5. The Influence of Chronic Tuberculosis of the Lungs Upon the Mind and Nerves. H. ENGEL.
6. The Difficulties in the Selection of Cases for the Sanatoria for Pulmonary Diseases, and the Method of Their Acceptance. R. ROBERT.
7. The Sanatorium Treatment of Tuberculosis. E. MEISSEN.
8. Experiences in the Treatment With Petroleum in General Practice. KATZENSTEIN.
9. Subcutaneous Injections of Arsenic in the Treatment of Phthisis. H. CYBULSKI.
10. Postscript to My Article: "The Prophylaxis of Septic Infections of the Eye, Especially Occupation Injuries. T. AXENFELD.

1.—Reiche reports the results of the treatment in sanatoria of 1571 cases of pulmonary tuberculosis out of 2273 patients that were examined for admission. Many of these returned several times, and altogether there were 1773 individual cures. Patients left the hospital 1364 times apparently capable of returning to work. Three hundred and forty-two times they were less able to work than usual; 66 times they left incapacitated, and one died. The tabulated results show that a considerable proportion have remained capable of working for periods ranging from 7 to 2 years. Of 56 persons treated in 1895, 29 are still capable of working and 15 have died; the proportion was somewhat more favorable for succeeding years. Total cure seems rarely to have been obtained; in only 118 cases was there a complete disappearance of all objective signs, and in 60% of these fresh signs appeared in the course of a year. It therefore appears that true cure rarely is obtained in sanatoria, but that in many cases the patients are so improved that they are capable of returning to their work. [J. S.]

2.—Schröder and Brühl have carried on a series of experiments in order to determine what effect exercise has upon the body temperature and upon the presence of albumoses in the urine in cases of phthisis. The exercise consisted in walking for an hour or an hour and a half at such a rate that the subject felt a slight degree of fatigue. A series of normal persons was first tested, and slight increase in the rectal temperature was noted that disappeared in the course of half an hour. In 5 tuberculous patients who did not have fever the elevation of temperature after the exercise was somewhat less on the average. In 5 cases with yellow fever there either was no rise of temperature after exercise, or a rise that was slighter than a normal person's. The paper is still unfinished. [J. S.]

3.—Sticker, after discussing the difficulties in diagnosing the tuberculous diathesis, describes some methods which he has employed which may give approximate results. One consists of an ingeniously arranged scale by which can be measured the amount of lifting force of the thorax, indicating the vital capacity. He found that in young men from 19 to 25 years this should be from 32 to 46 kg. for a single effort, and from 30 to 44 kg. after repeated effort. The dynamometer reading for these patients, indicating the strength of the hands, varied from 31 to 44 kg. The most important factor in tuberculous cases is the marked disproportion between the force of the grip and the lifting power of the lungs. In 2 cases supposedly normal in which this disproportion existed there were evidences of pulmonary involvement, and one in the course of a month showed the presence of tubercle bacilli in his sputum. As soon as the tuberculosis of the lungs has become evident, the lifting power of the breast is much diminished, falling to 12, 10 or even 3 kg. In a series of young men from 17 to 24 years those with normal lungs showed a breast force of 22 to 33 kg. and a grip force of 18 to 39 kg. In 7 person with evidence of pulmonary disease, 2 of them having tubercle bacilli in the sputum, the grip force was 23 to 28 and the breath force 19 to 31 kg. for a single effort, decreasing markedly upon repeated effort. [J. S.]

4.—Schmorl replies to Ribbert who suggested that the majority of cases of tuberculosis of the lungs are due to hematogenous infection. Schmorl holds to the Weigert doctrine of inspiration infection. He replies in detail to Ribbert's arguments, and believes that local conditions are of the greatest influence in the development of the disease, particularly in the development of chronic localized miliary tuberculosis. [J. S.]

5.—Engel discusses the psychical influence of pulmonary tuberculosis in various conditions, and speaks of the extreme degree of shock often suffered by the patients who suppose themselves cured and have a relapse. He calls attention to the peculiar emotional character of many subjects of pulmonary tuberculosis which manifests itself not only in their social life, but also in their business or professional life. He also calls attention to the sufferings of those who watch their symptoms closely, measure their own temperature and continually inspect their sputum. [J. S.]

6.—See editorial.

7.—Meissen replies to Hammer, who has apparently shown that the treatment of pulmonary tuberculosis in sanatoria is not of great advantage. He believes that the number of cases studied by Hammer is too small upon which to base any reliable conclusions. The most important feature is the early commencement of the sanatorium treatment. It is now well known that many patients, if not cured, have been restored to their ability to work. [J. S.]

8.—Katzenstein reports the results of the treatment of pulmonary tuberculosis with hetol. He does not believe that this is particularly valuable in ordinary hospital practice, but causes great improvement when combined with sanatorium treatment. He mentions a number of cases in which this treatment was used to advantage. It seems to check loss of weight, to steady the temperature, and is not contra-indicated by pulmonary hemorrhage. It is particularly valuable in pulmonary tuberculosis in childhood. None of the patients that he has treated and discharged as cured has shown any tendency to relapse. The solution is prepared according to the description of Landré. The dose consists at first of 0.3 cc. of a one per cent. solution, gradually increasing in adults to 0.3 cc. of a 5% solution. Rarely slightly more may be given, the number of injections varying from 20 to 72 for each case extending over a period of from 2 to 6 months. In the early cases hetol may

be employed upon patients remaining in their own homes. [J. S.]

9.—Cybulski has employed hypodermic injections of arsenic in the treatment of tuberculosis. The preparation consists of 0.2 gm. of sodium arsenite dissolved in 20 gm. of a 0.5% solution of carbolic acid. The injection consists of 0.1 gm. of this solution (1-70 of a gr. of sodium arsenite) every second day, gradually increasing until about 10 times this dose has been given. Altogether about 20 injections should be employed and the treatment completed in the course of 2 or 3 weeks. He collects the histories of 10 cases, and concludes from a study of them that the arsenic diminishes the temperature, increases the body weight, improves the appetite, diminishes the unpleasant subjective symptoms, does not cause disturbance of the gastro-intestinal tract, diminishes sweating, does not cause albumin in the urine, that is to say, it does not irritate the kidneys, does not affect the heart and does not produce any alteration in the pulmonary process. [J. S.]

10.—Axenfeld calls attention to the suggestion of Ranser to use antiseptic serum against ulcer of the cornea, which is produced by the pneumococcus. He believes that this serum gradually decreases the route of infection. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

August 11, 1902. (39. Jahrgang, No. 32.)

1. Recovery from Phthisis. D. von HANSEMAN.
2. The Agglutination of Plague Bacilli.
ALADAR AUJESZKY and JOHANN WENHARDT.
3. Some New Drugs: Aspirin and Digitalis Dialysate.
GEORGES.
4. Statistics on Tertiary Syphilis. ERNST ADLER.
5. Cancer Statistics from the Pathologico-Anatomical Standpoint. W. RIECHELMANN.
6. An Addition to his Article on the Topical Diagnosis of Gastric Tumors. KARL GLAESSNER.

1.—Phthisis may be bronchiectatic or fibrous, generally in the apex. The process frequently begins in the bronchial mucous membrane. Caseous hepatization may be lobar or lobular. Miliary tuberculosis should never be confused with phthisis; it is an absolutely different condition. Recovery may occur when the phthisical process ceases to increase and causes scar formation. In some cases the affection is cured, although tubercle bacilli still are found in the scar tissue in the lungs post mortem. Autopsy has shown cases in which recovery was complete, others with caseous masses and others with cavities in the scars. Care must be taken to differentiate the scars from those of syphilis, pneumonia, etc. [M. O.]

2.—Aujesky and Wenhardt found by experiments that bloodserum from a healthy horse will agglutinate plague bacilli; that plague serum will agglutinate plague bacilli and other bacteria; that blood from healthy, tubercular and feverish persons will not agglutinate plague bacilli; that, after immunization with plague serum, human blood may sometimes agglutinate plague bacilli, while bloodserum from a healthy rabbit will not agglutinate plague bacilli, that from one immunized by plague serum will agglutinate the bacilli well; while the urine from a healthy man will not agglutinate plague bacilli, after injections of plague serum the urine may agglutinate the bacilli; that bloodserum from a rabbit will not agglutinate plague bacilli, even after Haffkinization, and that, while the Haffkin serum will give agglutination, the reaction is more marked when living plague bacilli are employed. [M. O.]

3.—Görges has used aspirin in articular and muscular rheumatism, rheumatic endocarditis and pericarditis, and chorea in childhood, with great success. He also found digitalis dialysate of value in heart disease and heart weakness in children. [M. O.]

4.—Out of 1,676 cases of syphilis examined, 224 had tertiary lesions. While more men were affected than women, the proportion of the latter to the total number of syphilitic women was greater than that of the former to the total number of men. The majority were between 20 and 30 years old when they contracted syphilis; though tertiary symptoms in most cases appeared 3 years after infection. In over one half of the cases the skin only was affected. Gummata were most frequently observed on the legs; tuberoseriginous syphilides on the face and extremities. Sixty-eight per cent. of cases had had no treatment before tertiary symptoms developed. [M. O.]

5.—Riechelmann found 711 cases of cancer among 7,790

autopsies. Post mortem examination raised the number of cancer cases 22%. The poor condition of nutrition of these subjects is due to the impossibility of taking or digesting nourishment, to ulceration or suppuration of the tumor, and the position and number of metastases. Cachexia was noted in 76% of cases, in which cases metastases were most often found. [M. O.]

6.—Glässner reports another case of pyloric cancer, in which the tumor was localized by his method of topical diagnosis. [M. O.]

August 18, 1902. (39. Jahrgang, No. 33.)

1. Crêde's Method of Preventing Ophthalmia Neonatorum. G. LEOPOLD.

2. Recovery from Phthisis and the Production of a Joint in the Cartilage of the First Rib. W. A. FREUND.

3. The Prognosis of Tuberculous Meningitis.

ALFRED GROSS.

4. Extensive Pyometra in a Uterus Bicornis, with Recovery after Operation. EMIL SENGER.

5. A Case of Serous Osteomyelitis of the Occiput, Simulating Meningocele. W. SCHRANK.

6. A Foreign Body in the Bladder. von BRUNN.

7. Strabismus Operations for Congenital Paralysis of the External Rectus Muscle. F. SCHOELER.

1.—In spite of the certainty, lack of danger, and simplicity of Crêde's method of preventing gonorrheal ophthalmia, Leopold finds that it is comparatively little used in Germany, since statistics show 31% of blind children under 10 years of age from this cause. The technique of the method follows. Leopold contends that, in the cases in which serious accidents have resulted, Crêde's method was not followed. [M. O.]

2.—Freund has noted a very short cartilage to the first rib, post mortem, which had undergone the changes incident to joint formation, in some cases following recovery from phthisis. He considers the diagnosis of this condition an indication for operation. The condition is compensatory, and may be found in some cases in which the phthisical lesions have healed. [M. O.]

3.—Gross reports a case of tuberculous meningitis in a boy of 17, with recovery. Lumbar puncture was performed 4 times to relieve headache. The cerebrospinal fluid was cloudy, containing many polymorphonuclear leukocytes. Once only were tubercle bacilli found. A blow on the head was the evident predisposing cause. Fever lasted 16 days, then bronchitis developed, localized to the apices. No tubercle bacilli have yet been found in the sputum. The treatment consisted in increasing doses of calomel. [M. O.]

4.—Senger reports a case of pyometra in a woman of 25, following 5 weeks after her first labor, which had been normal. A large, circumscribed, peritoneal abscess was found, extending from the uterus, the diagnosis being confirmed by puncture. Operation showed that this was in one horn of a bifid uterus. Recovery followed extirpation of the affected part of the uterus. Menstruation has been regular since. [M. O.]

5.—Schränk reports a case of serous osteomyelitis of the occiput in a boy of 4½ years, which simulated meningocele. Operation showed typical sequestra. Recovery followed. The case is unique in the literature. While the first swelling contained serum, after tapping the fluid became purulent. The pressure of the fluid under the skin caused alopecia, the first symptom noted. [M. O.]

6.—von Brunn reports the case of a man of 25, into whose bladder an entire catheter had passed per urethram. Suprapubic cystotomy was performed, the catheter removed and cystopexy performed, to prevent abscess following. Recovery followed, all signs of cystitis disappearing. [M. O.]

7.—Out of 2,330 strabismus operations, 2,018 were tenotomies, 1,435 upon the internal rectus, 583 on the external rectus. The latter was advanced in 184, the former in 120. Only 30 cases were paralytic, 11 of them being congenital. In 8 of these there was abducens paralysis, making the operations dangerous. Schöler's technique is given in full, with several case histories. [M. O.]

August 25, 1902. (39. Jahrgang, No. 34.)

1. What is the Pearly Disease of Cattle? J. ORTH.

2. The Relations between Pernicious Anemia and the Gastro-intestinal Canal. H. STRAUSS.

3. Assimilation in Tuberculosis Patients.

MIRCOLI and SOLERI.

4. Two Cases of Lysol Poisoning. TAUSCH.

5. A Contribution to the Differentiation of Typhoid, Dysentery and Colon Bacilli. MARTIN KLOPSTOCK.

1.—Dupuy, in 1817, considered the pearly disease of cattle tubercular. Histological examination later showed the great similarity between the conditions found in human tuberculosis and the pearly disease of animals. Even the bacilli found are identical. Both processes are spread by disease products and by anything bearing bacilli. Morphologically, bacteriologically and experimentally, pearly disease is to animals what tuberculosis is to man. The latest experiments made by Esser and Orth show that human tubercle bacilli caused tuberculosis in different animals. Baumgarten showed that human tubercle bacilli, after passing through iodoform vapor, caused pearly disease when inoculated into rabbits. Nor has anything as yet been discovered to prove that the bacilli of the pearly disease of cattle and human tuberculosis are not identical. [M. O.]

2.—Will be abstracted when concluded.

3.—Will be abstracted when concluded.

4.—Tausch reports 2 cases of attempted suicide by the ingestion of lysol. While one patient recovered rapidly after having the stomach washed out, and after injections of camphor, the other died of double pneumonia. In both cases mouth, throat, esophagus and stomach were injured. [M. O.]

5.—With the Barsiekow nutrose media, dysentery bacilli cause the production of acid alone; typhoid bacilli cause the production of acid and clotting, while colon bacilli cause the production of acid, clotting and the production of gas. When this test is performed after the lacmus-whey test has been used, these micro-organisms can readily be differentiated. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

August 7, 1902. (XV. Jahrgang, No. 32.)

1. The Relation between Structure and Function of the Spleen. KONRAD HELLY.

2. A Remarkable Case of Neurofibromatosis. C. ADRIAN.

3. Six Cases of Induced Abortion with the Knapp Elastic Metal Bougie. A. SCHEIB.

4. The Reaction of the Prostatic Secretion in Chronic Prostatitis. C. PEZZOLI.

1.—Helly states that the functions of the spleen are the production of leukocytes and the retention of foreign bodies, dead or diseased erythrocytes. This may be followed by disease and hypertrophy. Besides, when other lymphglands are affected, the spleen may be affected. Morphologically, the spleen is a lymphatic gland. Helly concludes that the spleen is a regionary lymphgland of the blood, since it supplies leukocytes to the blood and removes foreign bodies from the blood. [M. O.]

2.—Adrian reports in detail a remarkable case of neurofibromatosis in an unmarried woman of 56. She claimed that some of her many tumors existed at birth. At 26 years of age she had one removed, weighing 1½ pounds. They covered her entire body, as is shown by photographs, and finally caused pressure symptoms. Death occurred during an operative attempt to remove a tumor. The autopsy showed multiple fibromata of the skin, neurofibromata and neuromyxomata, especially of the cervical, brachial and gastro-intestinal nerves. Full details are given. [M. O.]

3.—Scheib reports 6 cases of abortion induced successfully with the Knapp elastic metal bougie. He prefers this to the Krause bougie, because it can be well sterilized, is more flexible and causes immediate labor. [M. O.]

4.—Pezzoli insists that the secretion in chronic prostatitis is alkaline, as his experiments have shown, in spite of what Lohnstein says to the contrary. [M. O.]

August 14, 1902. (XV. Jahrgang, No. 33.)

1. Measuring Bloodpressure in Human Beings.

S. FEDERN.

2. Hesse's Method of Increasing Tubercle Bacilli in Sputum. ROBERT KOENIGSTEIN.

3. The Symptomatology of Syringomyelia and the Skin. Disturbances in that Disease. PAUL FLEGER.

1.—It has been shown that stimulation of the splanchnic nerves, peripherally or reflexly, causes an increase in blood-pressure. Clinical investigation shows that bloodpressure may be greatly raised reflexly, by intestinal intoxication, and this increase causes changes in the other organs. There may or may not be pain. Human bloodpressure in the radial artery varies from 50 to 60 mm. of mercury at the lowest. But no researches have as yet shown what is normal. In animals abnormally increased bloodpressure is the same in the different arteries, but is never normal. Federn, who discusses the physiology of the subject, explains the changes in bloodpressure found during menstruation, using the von Basch sphygmomanometer. He considers the estimation of the bloodpressure of value in all cases. [M. O.]

2.—Hesse found that all sputum which showed tubercle bacilli contained some bacilli which were capable of reproducing their species. Königstein's investigations, which are given in full, show that the Heyden agar and bouillon are especially adapted to the development of tubercle bacilli. In sputum tubercle bacilli rapidly multiply, though all are not capable of reproduction. The addition of human blood to the cultivating media does not hasten the development of the bacilli. Mucus plays an important role in the multiplication of tubercle bacilli in sputum when the Hesse media are used. [M. O.]

3.—Will be abstracted when concluded.

August 21, 1902. (XV. Jahrgang, No. 34.)

1. The Technique of Producing Ne-arthrodeses in Ankylosed Joints. DOMINIK PUPOVAC.

2. Appendicitis with the Cecum on the Left Side of the Body. NIKOLAUS DAMIANOS.

3. The Symptomatology of Syringomyelia and the Skin Disturbances in that Disease. PAUL FLEGER.

1.—Animal experiment has shown that, by placing absorbable plates between resected ends of bones in ankylosed joints, a new joint can be formed in time, after operation. The amount of motion which will result depends on the condition of the muscles about the joint, and the functional result will depend upon the condition of the joint-capsule. Pupovac reports the case of a woman of 24 with ankylosis of the elbow-joint following gonorrheal arthritis, in which he chiseled out a new joint and left a small plate of magnalium between the ends of the humerus and ulna. The result was excellent a good functional elbow joint resulting. The technique is fully described. [M. O.]

2.—Damianos reports the occurrence of appendicitis in a boy of 18, who recovered upon medical treatment. Operation disclosed that the cecum was on the left side of the abdomen, near the descending colon, the appendix lying to its right. This was easily extirpated, but death followed in collapse 2 days later. Not only was the cecum abnormal in position, but there was only one mesenteric attachment supplying both small intestine and cecum. Other cases with symptoms causing the diagnosis of left-sided, localized, purulent peritonitis, with the appendix on the left side in some, on the right in others, follow. Left-sided symptoms are not conclusive proof that the appendix lies on the left side. The entire subject of the abnormally placed cecum is well reviewed. An abnormal position of the cecum makes the diagnosis of appendicitis even more difficult. [M. O.]

3.—Fleger reports a case of syringomyelia in a man of 20, showing symmetrical muscular atrophy of the upper extremities, analgesia and thermo-anesthesia with the sensation of touch unchanged, scoliosis, unilateral bulbar symptoms, diminished reflexes in the upper extremities, increased reflexes in the lower extremities, and trophic skin changes, with bullæ, etc. The skin conditions greatly resembled hysterical skin lesions. These may be urticaria, dermatography, erythema, ecchymoses, edema, eczema, pem-

phigus, ulceration, symmetrical gangrene, hyperidrosis and other anomalies of sweating. Herpes zoster is but rarely noted with syringomyelia. The literature is well reviewed, all cases of skin conditions associated with syringomyelia having been noted in detail. [M. O.]

August 28, 1902. (XV. Jahrgang, No. 35.)

1. A Diagram of the Action of the Muscles of the Eyeball. ELSCHNIG.

2. The Clinical Uses of Esophagoscopy. L. HARMER.

3. A Rare Case of Late Recurrence of Cancer.

HANS HABERER.

1.—Elschnig describes a small diagram by means of which the actions of the various muscles of the eyeball are easily understood. The effect of paralysis of any one muscle is plain at once from this diagram. [M. O.]

2.—Will be abstracted when concluded.

3.—Haberer reports a most interesting case of recurrence in cancer. A man of 75 noted a tumor in his mouth in July, 1887, when 60 years old. This was extirpated in December, 1887. When seen in May, 1888, February, 1892, September, 1896, and June, 1901, he showed no signs of recurrence. But in February, 1902, he began to notice pain in his mouth again, dysphagia, disturbances of speech, etc. Examination in July, 1902, showed cachexia, but nothing abnormal in his body. His face was asymmetrical and he could not wholly close his mouth. There was no facial paralysis. A hard, superficial ulcerating tumor covered the entire left side of his mouth, cheek, gum and hard and soft palate. The lower lips was not affected. Haberer believes this to have been a recurrence and not a new growth, in spite of the time, 14 years, since the original cancer had been extirpated. This case illustrates the impossibility of making a correct prognosis, after removing a carcinomatous growth. [M. O.]

DEUTSCHE ZEITSCHRIFT FUER NERVENHEILKUNDE.

Band 21, 1902, Hefte 3 u. 4.

7. A Case of Asthenic Bulbar Paralysis, With the Results of Autopsy. LIEFMANN.

8. The Psychological Disturbances in Tumors and Injuries of the Frontal Lobes. MUELLER.

9. The Centrifugal Impulses in the Sensory Terminal Neurons. KOHNSTAMM.

10. Operative Interference in Choreic Epilepsy.

von BECHTEREW.

11. The Results of Almost Complete Strumectomy.

LUNDBORG.

12. Bulbar Paralysis and Sarcomatosis. HENSEN.

13. Tuberculous Meningomyelitis. HENSEN.

14. The Localization of Reflex Pupillary Immobility.

WOLFF.

15. Partial Myotomy With Muscular Wasting. SCHOTT.

16. A Contribution to the Question of Infantile Tabes.

IDELSOHN.

17. Remarks Upon the Clinical Observation of Skin and Tendon Reflexes of the Lower Portion of the Body.

SCHOENBORN.

18. The Changes in the Spinal Cord as a Result of Intracerebral Pressure. FINKELNBURG.

19. Brief Communication: (1) Contribution to the Knowledge of Reflexes. BICKEL. (2) Peculiar Associated Movements of the Paretic Palpebral Elevators and Sphincters. HIGIER.

20. Book Reviews.

7.—Liefmann reports the case of a girl, 19 years of age, who had neuropathic heredity and who, 5 years after an attack of diphtheria in which she was severely ill, developed pareses of some of the muscles of the face and particularly of the left eyelid. A year later there was bilateral paralysis of the muscles of the face and finally paralytic manifestations in all the motor cranial nerves giving rise to external ophthalmoplegia, facial diplegia and disturbances of speech, swallowing and mastication. At the same time the patient had fatigue of all the muscles of the body, atrophy of the right half of the tongue and some quantitative alteration in the electrical reactions of the muscles supplied by the facial nerve, that is to say, the patient pre-

sented the characteristic picture of asthenic bulbar paralysis. She died rather suddenly and macroscopical changes were not found in the central nervous system. The histological examination showed practically no changes in the walls of the central nervous system, with the exception of some peculiar homogeneous masses resembling colloid, which were found in the perivascular spaces of the capillaries and scattered through the nervous system. The muscles of the tongue showed considerable infiltration with fat. Liefmann discusses the nature of asthenic bulbar paralysis and quotes a number of cases from the literature. He believes that the disease may be associated with atrophy of the muscles, and that this atrophy may be due to a peculiar noxious substance that interferes with the function of the central nervous system. This substance is probably toxic in character. [J. S.]

8.—Müller discusses particularly the case reported by Welt, which is supposed to indicate that **disturbances of intelligence** are apt to follow in the frontal lobes. He believes that in all such cases a diffuse disease of the cortex of the brain should be excluded and the patient should be proved to be not of a neurotic character before the injury or tumor developed. In the case reported by Welt there was every reason to believe the patient was hereditarily defective, and in many other cases the proof is entirely inadequate that the frontal lobes are particularly involved. With regard to the frequency with which a tendency to make puns occurs in cases of disease of the frontal lobes, Müller, after admitting it, attempts to explain it by various hypotheses: (1) That the tumor may produce a general dementia; (2) that it may be the result of epilepsy; (3) that certain mechanical substances may be generated by the tumor or administered as a remedy; (4) it may be simulated and appear excessive on account of the general apathy and indifference of the patient. He therefore holds that it is only a general symptom of tumors of the brain and is caused by the progressive dementia, produced by the tumor, and is more common in tumors of the frontal lobes, because their course is relatively less acute. The difficulty in the discussion of this subject lies in the fact that a very small amount of material has been used for statistical purposes, and that much of this material is not sufficiently conclusive. The majority of brain tumors in this region are gliomata or gliosarcomata, that is to say, they are probably congenital in nature. These tumors may be associated with psychical symptoms in 3 ways: Either by infection with the general nutrition of the brain or the psychical condition, and the tumors may arise from the same cause; or the psychosis may pre-exist and by predisposing to injury, act as a remote cause of tumor formation. In conclusion Müller urges that in future all cases of brain tumor be carefully studied in order that our information regarding the relation of these tumors to mental defects may be more correct than it is at present. [J. S.]

9.—Kohnstamm believes that the **centripetal neurons** may be irritated by the central nervous system. The arguments in favor of this may be summarized as follows: (1) The phenomena of the reflexes which may extend from one posterior root to another. (2) Atrophic disturbances which occur in organic disease and in normal experiences. (3) The pathology of herpes zoster. (4) The fact that groups of nerve fibers exist in the mass of sensory neurons, carrying impulses toward the periphery. (5) The changes in the spinal ganglion cells after section of their peripheral fibers. (6) The fact that ganglion cells apparently may conduct impulses in 2 directions. Each of these points is discussed in a separate paragraph and Kohnstamm finally concludes that the hypothesis is sufficiently clear. [J. S.]

10.—von Bechterew reports the results of an operation upon a patient afflicted with **choreic epilepsy**, a condition that he has previously described. The patient showed cramp-like twitchings in various parts of the body occurring before the epileptic attacks, the latter frequently giving rise to serious injuries. At the operation the skull and dura were permanently removed from the Rolandic region on one side. The irritability of the cortex was carefully tested and then small portions of the gray substance of the central convolution removed in 3 places. There were no signs of paresis after the operation, and the patient was so remarkably improved that he was ready to submit to an operation upon the opposite side. A second operation was

therefore performed, but unfortunately, as a result of erysipelatos infection of the wound, the patient died.

[J. S.]

11.—Lundborg, in discussing the results of **strumectomy**, involving 4/5 of the thyroid gland or more, states that there may be 6 terminations. (1) Acute tetany followed by death; (2) acute tetany followed by recovery; (3) chronic tetany; (4) chronic tetany and myxedema; and (5) entire recovery. He reports the case of a woman, 24 years of age, with a neuropathic heredity, who in childhood had developed goiter of both sides of the neck. Even as early as her eleventh year she had tremor and tachycardia. At the age of 15 a portion of the left lobe was removed; at the age of 17 the right lobe was removed. Almost immediately after the second operation the patient developed acute tetany, which gradually passed into a tetanoid condition and then improved. A certain amount of renewal of the tumor occurred. The attack of tetany, however, continued to occur, especially at the menstrual periods. They were preceded by an uncomfortable feeling in the arm and then by spasm. These clonic movements involved all the extremities and sometimes even the whole body. The patient was given thyroid tablets and finally improved, although she did not entirely recover. [J. S.]

12.—Hensen reports the case of a girl, 19 years of age, who had an attack of some acute condition accompanied with fever and vomiting. Three weeks later she felt as if the lips were thickening and a week after that there was paralysis of the left side of the face associated with paralysis of the abducens nerve, atrophy of the tongue, a nasal and harsh voice, difficulty in swallowing and slight paresis of the right side of the face. The liver and spleen were enlarged, but otherwise, with the exception of the total cessation of menstruation, no pathological condition was discovered. The patient improved slightly, but developed a necrosis of the right tonsil associated with slight fever. She then became anemic, rapidly grew weaker and died. At the autopsy there were found **sarcomata** of both ovaries with **metastasis to the spinal column**, the liver, kidney, intestines, uterus and vagina. The central nervous system was peculiarly firm in consistency; there were some grayish-white layers in the white substance of the brain, slight hydrocephalus and a doubtful tumor-like formation upon the outer side of the dura. The microscopical examination showed peculiar changes in the central nervous system, particularly in the medulla, which led to the suspicion that there might be beginning metastasis. A small focal lesion, extensive secondary degeneration of the nerve fibres, could be traced. As, however, these focal lesions appeared to be more recent than the symptoms, it is possible that some other cause was acting at the same time. [J. S.]

13.—Hensen reports the case of a woman, 40 years of age, who had chill, headache, severe pains in the back, difficulty in urination and, when brought to the hospital, showed slight paresis of the right abducens, paralysis of the bladder, hyperesthesia of the legs and slight increase of the patellar reflexes. The patient improved slightly and then developed numbness in both legs with paralysis of both. She had girdle pain and gradual ascending anesthesia along the body and reactions of degeneration in some of the muscles of the body. The patient finally died, and at the autopsy tuberculous basilar meningitis was found, almost to the middle of the dorsal region, which produced almost complete destruction of the cord. The case is a rare one and apparently commenced as a **meningitis of the spinal cord followed by myelitic changes**. (A note by the editor states that the author of these two articles died of tumor of the brain before they were published.) [J. S.]

14.—Wolff reports a case of a man, 45 years of age, who a few months previously had had pain in the back between the shoulderblades, which gradually extended to the neck and head. The patient then developed diplopia and twitching in both left extremities. Memory was much impaired. He gradually developed paresis of the left leg and then recovered almost entirely after employing potassium iodide. He then became much worse, was completely irresponsible, both pupils were of the Argyll-Robertson type, and there was paresis of the whole left side of the body. The patient gradually grew weaker, developed cough with expectoration and finally died. At the autopsy a large tumor was found in the right cerebral hemisphere extend-

ing almost to the wall of the third ventricle, and involving the corpora striatum and the anterior portion of the optic thalamus. The central portion of the brain was stained by Weigert's method and 2 other gummata were found by this method, one on the ventral surface of the brain at the junction of the pons and medulla, and the other in the upper portion of the cervical cord, extending from the third to the fourth segments. Wolff discusses the difficulties in locating lesions that give rise to the Argyll-Robertson pupil. Theoretical explanations are unsatisfactory. In his case Westphal's nucleus was not involved, and there seemed perhaps more reason to suppose that the cervical lesion had something to do with it than any of the others. He admits, however, that at present we know nothing at all about it. [J. S.]

15.—Schott describes the case of a boy, 18 years of age, who had myotonia commencing in the tongue and then involving the hands. The symptoms were more pronounced in cold weather than in warm, otherwise the patient was normal. The electrical reactions showed no particular abnormality excepting in some of the muscles of the fingers when there was slight prolongation of the contraction, a marked reduction of faradic irritability and an inversion of the galvanic formula. The disease does not appear to have occurred in any other members of the family. [J. S.]

16.—Idelsohn reports the case of a girl, 6 years of age, whose mother and father suffered from syphilis, and who had Argyll-Robertson pupil. The tendon reflexes were lost, station and gait were normal, there was hypalgesia in the legs, and the child slept more than usual. There seems little reason to suppose that the case is anything but *tabes*. Altogether Idelsohn has been able to collect 6 other cases of *tabes* occurring in young children, and in all there was luetic infection of the parents. [J. S.]

17.—Schoenborn, after discussing the individual reflexes and the methods in which they are elicited, in the course of which he touches upon several interesting topics, as, for example, whether the knee jerks are ever present in *tabes*, mentioning an interesting case in which the symptoms were fairly typical, but in which very marked improvement subsequently occurred, and also the infrequency with which he has been able to obtain patellar clonus—then proceeds to a discussion of the skin reflexes of which he mentions a considerable number, and among the most important the Babinski phenomenon. He then gives in tabular form the results of his investigations in 100 persons who were apparently not suffering from nervous disease. These are as follows. Patellar reflexes, Achilles tendon reflexes, abductor reflexes, tibialis posterior, abdominal reflex, upper, middle and lower; the cremasteric reflex, and the scrotal reflexes. [J. S.]

18.—Finkelnburg reports 3 cases of cerebral tumors occurring in children, all three in the cerebellum. The common characteristics of these cases were extreme intracranial pressure with papillitis, loss of knee reflexes, early death, in 2 cases, and at the autopsy characteristic changes in the posterior and anterior roots. The ganglion cells in the anterior cornua, however, showed no changes, and there was no reason to suppose that any toxin was acting on the spinal cord, because all the changes could readily be explained by the supposition of increased intraspinal pressure. Finkelnburg is now attempting to discover by experiment whether intraspinal pressure is sufficient to account for all the changes found. [J. S.]

19.—(1) Bickel reports an interesting experiment performed upon a dog. The posterior roots coming from the posterior extremities were cut, and it was found that there was total anesthesia in the hind legs with loss of the tendon reflexes. After this condition had persisted for 5 months, transverse section was made in the dorsal spine, when it was found that irritation of one of the posterior roots caused movements in the extremity and in the tail. Microscopical examination showed that no regeneration in the posterior roots had occurred. Bickel believes that the results are best explained by assuming that fibers from the hind legs enter the spinal cord at a higher level and that the irritation of these produces in the hyperexcitable motor tracts the movements of the extremities. [J. S.]

19.—(2) Hliger describes some peculiar movements in the eyelids occurring in a man, 32 years of age. Under normal conditions the right eye was closed and the left

eye abnormally wide open. When he began to chew, the right eye opened and the left closed. The patient had paresis of the right levator palpebrae and of the left orbicularis oculi. Otherwise his muscles were normal, excepting that the ptosis had existed from birth and the lagophthalmia only for 9 months. As the right eyelid could not be voluntarily raised, and was only elevated when the mouth was opened, a careful study of the muscles was made, when it was found that the pterygoids and the muscles of the hyoid bone were the ones the contractions of which were of special influence. The closure of the left eye is probably to be regarded as an associated movement. [J. S.]

DEUTSCHE ZEITSCHRIFT FUER CHIRURGIE.

June, 1902. (Volume 64, Nos. 1-3.)

1. The Surgical Relations of Influenza. G. PEREZ.
 2. Intestinal Occlusion Due to the Rarer Forms of Volvulus. BLECHER.
 3. Fracture of the Femur with Lengthening.
W. DIETZER.
 4. Osteosarcoma of the Femur. ADOLF JENCKEL.
 5. Transection of the Sympathetic Nerve in a Stab-Wound.
GEORG van der BRIELE.
 6. 23 Cases of Renal Injuries. WALDVOGEL.
 7. Spontaneous Rupture of the Vagina with Colossal Intestinal Prolapse. R. ROMMEL.
 8. A New Steam Sterilizer for Surgical Bacteriological Purposes. R. BECKMANN.
 9. Pneumotomy for Foreign Bodies. PAUL BECKMANN.
 10. Autoplasty after Radical Operation for Cancer of the Breast. RUDOLF GOEBELL.
 11. Subcutaneous Intestinal Rupture after Abdominal Contusions. A. NEUMANN.
 12. Gastric Hemorrhage in Appendicitis. E. NITZSCHE.
 13. The Protracted Action of Chloroform with Fatal Result. MAX COHN.
 14. The Operative Treatment of Old Luxations of the Elbow. F. WEBER.
 15. Tuberculosis of the Pubic Symphysis. PAUL HERZ.
 16. Pulsating Tumors of the Supraclavicular Fossa.
GUSTAV SCHRADER.
 17. Resection of the Stomach for Carcinoma.
O. KAPPELER.
 18. A Weight Support for the Volkmann Extension Apparatus. CARL RITTER.
 19. A Large Tuberculous Mesenteric Tumor. E. W. BAUM.
- 1.—Perez describes the effects of influenza upon the nervous system, central and peripheral, on the brain, cord, meninges and nerves, and upon the eye, in this number. [M. O.]
- 2.—Blecher reports 2 cases of intestinal occlusion due to volvulus, in one affecting the jejunum, ileum, cecum and ascending colon; in the other due to the passage of a loop of ileum through a hole in the mesentery. While the former died, the latter recovered, after operation. But 17 somewhat similar cases were collected from the literature. [M. O.]
- 3.—Dietzer reports a case of fracture of the neck of the femur in a man of 50, followed by recovery with 2 cm. lengthening. He explains this strange result as due to the straight neck of the femur, which was observed by radioscopy. [M. O.]
- 4.—Jenckel, who reports 35 cases of sarcoma of the femur, lost 4 by death soon after operation and 21 by death from metastases. In 5 nothing further is known, and in one the femur was amputated later. Four patients have recovered, 3 after amputation and one after evidentment. The operation occurred from 6 to 15 years ago. Permanent recovery is rare. Yet high amputation of the femur is to be preferred to exarticulation at the hip-joint. [M. O.]
- 5.—Van der Briele reports a case of isolated transection of the sympathetic nerve above the upper ganglion, in a boy of 19, stabbed in the neck. He quickly recovered. The symptomatology follows in full. [M. O.]
- 6.—The case-histories of 23 patients, only 4 of them

women, who suffered renal injury, are reported by Waldvogel. Seven patients were run over, the others falling or being knocked down. Hematuria occurred in all but one patient in whom both liver and kidney were found ruptured at autopsy. Only 3 patients died, 2 of them after laparotomy, one with nephrectomy. [M. O.]

7.—Rommel reports the case of a woman of 38, who ruptured the posterior wall of the vagina while carrying a heavy bowl. A huge vaginal prolapse followed and death in collapse occurred the next day, in spite of reposition of the mass of intestines. But 5 similar cases were found in the literature. [M. O.]

8.—Beckmann describes his new steam sterilizer for surgical and bacteriological purposes, with details upon its use and several diagrams. [M. O.]

9.—Beckmann reports the case of a boy of 5, upon whom he performed pneumotomy to remove a blade of grass which had been inspired. The incision was made between the tenth and eleventh ribs and the foreign body was removed, in a mass of green pus, found in the lung tissue. Uneventful recovery followed. [M. O.]

10.—The radical operation for mammary cancer includes extirpation of the breast, axillary glands and affected muscles. Göbell reports 2 cases in which, after radical operation, a secondary autoplasmic operation was performed on account of the loss of substance, and to cover the denuded ribs. His technique is given. [M. O.]

11.—Out of 133 patients with abdominal contusions, internal viscera were injured in 62. In 21 of them intestines and bladder were ruptured. In one case the stomach was ruptured. Of the 21 cases, 17 died after laparotomy; 3 died without operation; and one recovered after operation. [M. O.]

12.—Nitzsche reports the case of a man of 62, with abdominal pain, hematemesis, constipation, hiccough, tympanites, pain and resistance in the right iliac fossa, with death in 3 days. The autopsy showed gangrenous appendicitis. The stomach had localized necrotic areas from which the gastric hemorrhage had occurred. These followed chronic gastritis, the ulceration being due to the digestive action of the gastric juice. [M. O.]

13.—Laparotomy was performed on a girl of 21, with the removal of both tubes and ovaries, which were diseased, under chloroform. The operation lasted one hour, and 175 gm. of chloroform were employed. She was excited after operation, then grew jaundiced, showed signs of acute nephritis, fever, heart weakness and coma, death occurring in 4 days. The autopsy showed that death was not caused by operation, its effects, sepsis, etc. From the conditions found Cohn believes that chloroform was the probable cause of death. [M. O.]

14.—Weber, who reports 2 cases of old luxation of the elbow, treated by arthrotomy, with the removal of all fragments and osteophytes, considers this the correct operative treatment. An external incision is best. If arthrotomy fails, resection should be done. This should be the primary operation when fracture with much dislocation of the internal condyle is found. Total resection of the elbow-joint is indicated to prevent ankylosis when there are several fractures. Resection between the ages of 15 and 25 years gives a good functional result when done subperiosteally. It is, however, contra-indicated in childhood. [M. O.]

15.—Herz reports 2 cases of tuberculous disease of the pubic symphysis in boys of 15 and 18 years, neither of whom had a tubercular family-history. Typical caries was found. Symptoms vary; the disease is chronic; and the prognosis is good with operation. The diagnosis is difficult early. Incision and drainage will effect a speedy cure. [M. O.]

16.—Schrader reports a case of sarcoma of the brachial plexus, a tumor situated among the fibers of the plexus, in the supraclavicular fossa, pulsating, and causing pain in the hand. Pressure on the tumor caused an increase in

the pain. The tumor was removed by operation. The patient, a woman of 43, rapidly recovered. There has been no recurrence in the 11 months since operation. [M. O.]

17.—Kappeler has resected the stomach for carcinoma ventriculi in 30 patients. The majority had been ill over 7 months. A tumor was palpable in all cases, while vomiting, pain, etc., were noted. In 29 cases he performed gastroduodenostomy by the Billroth-Rydygier method; in one by the Kocher method. His technique follows in detail. Eight patients died immediately after operation; 22 lived over 3 weeks after operation, 10 of them dying from recurrence inside of 4 years after operation. Only 3 patients are still living, though the others lived from 3 weeks to 4½ years after operation. [M. O.]

18.—Ritter describes an easily arranged weight support for applying the Volkmann extension dressing. [M. O.]

19.—Baum reports the case of a large tuberculous mesenteric tumor in a man of 24, removed by operation, with perfect recovery resulting. [M. O.]

ARCHIV FUER KLINISCHE CHIRURGIE.

1902. (Volume 67, No. 2.)

8. The Effect of Arterial Hyperemia on Regeneration. ERWIN LIEK.
9. Two Hundred Operations for Chronic Recurrent Perityphlitis. JOSEPH KOCH.
10. A Rare Form of Senile Calcification. HEINRICH WOLFF.
11. Resection of the Thorax for Neoplasms. RUDOLF TRZEBICKY.
12. The Microscopical Examination of the Gasserian Ganglion in Lexer's 15 Cases. HERMANN COENEN.
13. The Structure, Position and Anomalies of the Human Patella. JOACHIMSTHAL.
14. Operations on the Seminal Vesicles and Their Surroundings. KESSLER.
15. Laying Open a Wounded Heart. HANS LORENZ.
16. The Symptoms and Diagnosis of Stone in the Bladder. MAX MELCHIOR.

8.—Liek reports a long series of experiments upon animals which show the influence of arterial hyperemia on regeneration. Where hyperemia is induced, the wound heals rapidly, the arterial hyperemia being easily caused by resecting the sympathetic nerve. [M. O.]

9.—Koch reports 200 radical operations for chronic recurrent perityphlitis, 58 of whom had previous operations. Care must be taken to differentiate chronic perityphlitis from diseases of the female sexual organs and those of the gall-bladder and bile-ducts. The technique of the operation for resecting the appendix and for fecal fistula follows. He advises radical operation 4 or 5 weeks after fever has subsided. The pathological changes in the appendices removed are described. In about 16% the condition had healed before operation. [M. O.]

10.—Wolff reports the case of a man of 60, in both of whose thighs most of the semitendinosus muscle had become calcareous. One long hard mass was extirpated. Both tendon and muscle contained masses of lime, following necrosis, as was shown by microscopical examination. The old appearance of the patient caused Wolff to attribute this rare condition of symmetrical calcification to senility. The entire bony skeleton showed atrophy. Similar cases are quoted. [M. O.]

11.—Trzebicky reports 6 full case-histories in which resection of the thorax was performed for new growths. Of these 2 were chondromata, with recovery; one was a fibromyoma, with recovery; and 3 were sarcomata, with one recovery and 2 deaths from pneumonia. [M. O.]

12.—Coenen gives the histological findings in the 15 Gasserian ganglia extirpated recently by Lexer. Twelve of them showed swelling and vacuolization of the cells,

changes in the nuclei, granulation, atrophy and secondary increase in the connective tissue. In 2 patients, in whom excision of the ganglion was the primary operation, no changes at all were observed. [M. O.]

13.—The human patella is peculiar in that its posterior surface has an upper cartilaginous and a lower noncartilaginous portion. Its normal position was well demonstrated by skigraphs, its structure by sections. Several anomalies were then described, a case of double patella, congenital division of the patella, etc. [M. O.]

14.—Kessler, after describing his experiments on the cadaver, concludes that the best means of **extirpating the seminal vesicles** is by the Schlange-Levy temporary resection of the sacrum. It is not dangerous, but little blood is lost, and it is quickly performed. Drainage works well, and good functional recovery results. A case-history follows in detail. [M. O.]

15.—Lorenz reviews the anatomy of the heart and its surroundings, and cites the literature in full. **When the heart is wounded**, operation is immediately imperative. A large thoracic opening must be made, with as little assistance as possible, and care must be taken not to injure the pleura. The methods of operating already carried out by different surgeons are described. From his experiments on the cadaver Lorenz believes that it is most important to find the endothoracic fascia in the third intercostal space, by laying free the mammary vessels, and entering by separating this fascia from the sternum. This proceeding will least injure the pleura. Resection of the sternum is not, as a rule, necessary. The article is full of details. [M. O.]

16.—Melchior reports 4 cases of **stone in the bladder**, in which the diagnosis was exceedingly difficult. The most important sign of stone in the bladder is the occurrence or an increase of symptoms upon motion. Urine analysis and the history of the case help somewhat in forming the diagnosis. [M. O.]

1902. (Volume 67, No. 3.)

17. The Symptoms of Secondary Hemorrhage.
ARTHUR FROMMER.
18. The Etiology of Cancer. O. ISRAEL.
19. The Symptomatology of Spinal Tumors. MAX JAFFE.
20. The Limits of Successful Extirpation of the Kidney and the Diagnosis of Nephritis by Cryoscopy.
HERMANN KUEMMELL.
21. Infection with Gas-Producing Bacteria.
PAUL ALBRECHT.
22. The Pathology of Circulatory Disturbances in the Mesentery. SPRENGEL.
23. The Artificially Deformed Feet of Chinese Women.
GEORG PERTHES.
24. The Development of Callus under the Influence of Stasis. ANTON BUM.
25. The Course of Gastric Cancer with Operative and Non-operative Treatment. KROENLEIN.
26. The First Dressing on the Battlefield. von BRUNS.
27. Aseptic and Antiseptic Dressings with Pastes and Ointments. HONSELL.
28. Acute Nonpurulent Thyroiditis. F. de QUERVAIN.
29. Intramuscular Bone Formation after Traumatism.
OSCAR VULPIUS.
30. Complications and Difficulties in Excision of the Appendix in the Interval between Attacks of Appendicitis. ROUX.
31. The Permanent Results of Tendon Transplantation in Arthrogenous Contractures of the Knee Joint.
L. HEISNER.
32. Isolated Paralysis of the Quadratus Menti Muscle.
MAX JAFFE.

17.—Frommer reports 8 cases in which the main arteries of the extremities were ligated for **secondary hemorrhage**. In these cases suppuration from the wound reached the bloodvessels, causing degeneration and necrosis, with hem-

orrhage. The disposition to hemorrhage from erosion of the bloodvessel walls seems to depend upon the virulence or intensity of the infection. Compression usually stopped the bleeding. [M. O.]

18.—Israel fully reviews the theories of the **etiology of cancer**. Anything which causes a break in the covering of an organ produces cell proliferation. If this persists, these hypertrophic cells lose all other functions, being able only to reproduce cells of their kind. When connective tissue increases beyond its limits, benign tumors result. Should the endothelial or epithelial cells predominate over the connective tissue formation, malignant tumors result. Depending on the space nutrition, etc., of the part, metastases follow. Thus any injury which affects the covering layer of cells will cause a destructive new growth and may produce cancer. The injury may be mechanical, thermal, chemical or parasitic. All proliferative tumors result in just this way, by cytogenesis, whether changed by endogenous or ectogenous effects. While cancer cannot as yet be placed among the simple infectious diseases, it was only by a misunderstanding that protozoa came into the question at all. [M. O.]

19.—Jaffé reports the case of a **spinal cord tumor**, in a woman of 52, in whom he correctly localized the tumor in the second dorsal segment of the cord. She had paraplegia, anesthesia, spasticity of the paralyzed lower extremities, which occasionally moved as if in epileptic convulsions, increased reflexes without contractures and total paralysis of the bladder and rectum. According to Jaffé, who reviews the literature and differential diagnosis, the correct localization of spinal tumors should be more frequently made than has hitherto been the case. [M. O.]

20.—See *Philadelphia Medical Journal*, May 24, 1902, page 925.

21.—Albrecht reports 7 cases of **infection with gas-producing bacteria**, and a number of experiments on animals. He concludes that gas-producing anaerobic bacteria may enter wounds at operation, from the dust of the room. When this is a pure infection, local symptoms are few or absent. When mixed infection occurs, typical gaseous gangrene follows. His patients all recovered by evacuating the secretion freely. All cases were due to the bacillus of gaseous gangrene, called by Koch the "bacillus of malignant edema," and by Schattenfroh and Grassberger "putrefaction butyric acid bacillus." [M. O.]

22.—See *Philadelphia Medical Journal*, May 10, 1902, page 834.

23.—In a long and thorough description of the **feet of Chinese women**, Perthes states that 2 processes combine to cause the development of this deformity, the passive changes of form during the period of growth, and the reactive, functional changes for accommodating the organism to the former changes. The result is a pressure deformity. [M. O.]

24.—Bum reports many experiments upon animals to show the **development of callus under the influence of stasis**. Histological details are given. Stasis seems to produce removal of lime salts. The narrow callus is markedly affected; the degree to which the immediate callus is affected could not be determined; but the periosteal callus is first and most affected by stasis. The periosteal callus is most important in the healing process, following fracture. [M. O.]

25.—See *Philadelphia Medical Journal*, May 3, 1902, page 788.

26.—See *Philadelphia Medical Journal*, May 3, 1902, page 787.

27.—See *Philadelphia Medical Journal*, May 24, 1902, page 926.

28.—See *Philadelphia Medical Journal*, May 24, 1902, page 925.

29.—See *Philadelphia Medical Journal*, May 24, 1902, page 926.

- 30.—See Philadelphia Medical Journal, May 10, 1902, page 834.
31.—See Philadelphia Medical Journal, May 24, 1902, page 926.
32.—See Philadelphia Medical Journal, May 24, 1902, page 925.

1902. (Volume 67, No. 4.)

33. The Operative Treatment of Large Rectal Prolapse.
von EISELSBERG.
34. Dupuytren's Contractures of the Fingers.
PETER JANSSEN.
35. The Treatment of Infectious Purulent Processes in the Peritoneum. RHEN.
36. Experimental Investigations on Peritonitis Caused by the Injection of Gastric Contents.
KONRAD BRUNNER.
37. The Operative Treatment of Epilepsy. G. J. WINTER.
38. The Treatment of Small Caliber Gunshot Wounds in the Field. HILDEBRANDT.
39. Splenectomy and Talma's Operation for Banti's Disease. IGINIO TANSINI.
40. The Plastic Closing of the Choledochus with Omentum and Flaps from the Stomach or Gall-Bladder.
HANS KEHR.
41. A New Artificial Leg for Carrying the Knee Flexed.
W. ENGELS.
42. The Treatment of Intraperitoneal Rupture of the Bladder. LEDDERHOSE.
43. A Case of Hydronephrocystoneostomy.
W. F. SNEGUIREFF.
44. The Operative Treatment of Chronic Constipation.
FELIX FRANKE.
45. Intestinal Occlusion and Enterostomy in Peritonitis.
L. HEIDENHAIN.
46. Bacteriological Examination of the Blood in Surgical Suppuration with Relation to the Beginning of General Infection. BERTELSMANN.
47. The Parasites of Cancer. H. NOESSKE.
48. The Results of Intestinal Experiments; a Study of Indicanuria. W. PRUTZ and A. ELLINGER.
49. Intestinal Diverticula. ERWIN PAYR.
50. Subacromial Bursitis. E. KUESTER.

33.—See Philadelphia Medical Journal, May 10, 1902, page 834.

34.—Janssen, who has observed 16 cases of Dupuytren's contractures of the fingers, reviews the subject in full. The condition is due to local hyperplasia of the connective tissue, starting from the walls of the capillaries and becoming sclerotic. Contracting fibers run from the fascial aponeurosis. Though the etiology remains obscure, traumatism or other specific cause has not been found. The treatment of the condition is an operation in which the entire hypertrophic tissue is freely dissected off. [M. O.]

35.—See Philadelphia Medical Journal, May 10, 1902, page 834.

36.—See Philadelphia Medical Journal, May 24, 1902, page 925.

37.—Winter reports his results in 9 cases of essential epilepsy in which he performed total bilateral resection of the cervical sympathetic nerves, according to the Jonnesco technique. Five of his patients remained unchanged. Out of 122 cases fully published, 67, or 54.9%, were unsuccessful. Winter's case-histories follow. [M. O.]

38.—See Philadelphia Medical Journal, May 3, 1902, page 787.

39.—Tansini reports a case of Banti's disease in a woman of 46. The enlarged spleen, marked anemia and ascites led him to perform Talma's operation and splenectomy simultaneously. The patient recovered after operation and has kept well since. [M. O.]

40.—See Philadelphia Medical Journal, May 24, 1902, page 925.

41.—See Philadelphia Medical Journal, May 24, 1902, page 926.

42.—See Philadelphia Medical Journal, May 24, 1902, page 926.

43.—Snequireff reports a rare case of hydronephrocystoneostomy, performed on a girl of 19. First an ovarian cyst was removed by laparotomy; then by a lumbar incision the renal cyst was incised, evacuated and sutured to the abdominal wall, with drainage. When she urinated, urine also flowed through the fistula. Later laparotomy was again performed, and the hydronephrotic sac was sutured into the bladder. The fistula then healed rapidly, and the patient has been well since the operation, 6 months ago. [M. O.]

44.—See Philadelphia Medical Journal, May 24, 1902, page 925.

45.—See Philadelphia Medical Journal, May 24, 1902, page 925.

46.—Bertelsmann examined the blood for bacteria in 91 cases and found bacteria in 47. Of the 54 negative cases 43 recovered. Of the 47 in whose blood bacteria were found, 26 recovered. Streptococci existed alone in 27 patients; staphylococci alone in 15. Fever shows when the bacteria enter the blood, causing general infection. When the bacteria exist in the blood, some other tissue is generally also affected. That bacteria are not more often found in the blood depends upon the filtering properties of the surroundings of the local infection and upon the peculiar bactericidal properties of the blood. Several case-histories are given. [M. O.]

47.—See Philadelphia Medical Journal, May 3, 1902, page 788.

48.—See Philadelphia Medical Journal, May 10, 1902, page 834.

49.—See Philadelphia Medical Journal, May 10, 1902, page 834.

50.—See Philadelphia Medical Journal, May 24, 1902, page 926.

REVUE DE CHIRURGIE.

June, 1902. (22me. Année, No. 6.)

1. Fibrous Strictures of the Small Intestine.
E. QUENU and H. JUDET.
2. Hematoma of the Radial Tendons. E. JUVARA.
3. Tubercular Exostoses. MAURICE MAILLAND.
4. Strangulated Hernia in Infants Under Two Years of Age. E. ESTOR.

1.—Quénu and Judet report in full the case-histories of 2 patients operated upon for fibrous strictures of the small intestine, with minute histological details and diagrams. In both cases entero-anastomosis was performed with successful recovery. In spite of the absence of tubercle bacilli, even with inoculation, they believe that these fibrous, anodular strictures may be due to tubercular enteritis. The onset is insidious, without diarrhea. Later colic, increased peristalsis, borborygmi and diarrhea with the passage of flatus occur. There is localized tenderness with tympany. This syndrome of König will aid in the diagnosis. It must be differentiated from sarcoma, carcinoma, typhoid and syphilitic strictures. The treatment is entero-anastomosis with resection of the stricture. [M. O.]

2.—After a minute description of the anatomy of the radial tendons and their sheaths, with especial reference to the bloodvessel distribution, Juvara discusses the occurrence of hemorrhagic effusion into the sheaths of the radial tendons. The cause of the condition is always traumatism, the wrist generally being struck. He reports 3 case-histories, the patients ranging from 10 to 30 years. The hematoma is always small, as was shown by his experiments on the cadaver. After puncture, with evacuation of the blood, a compress was applied and recovery followed rapidly. When the patient will not allow aspiration, compression alone will result in recovery, but more slowly. [M. O.]

3.—Mailland divides tubercular exostoses into the exostoses of bony tuberculosis and tuberculous osteophytes without previous bony lesions, reporting 4 case-histories. He concludes that tubercular patients often present small exostoses, purely periosteal in structure, not showing any

signs of tuberculosis. These osteophytes may appear on bones formerly affected by tuberculous osteitis, but at some distance from the site of the previous lesions. Or they may appear in subjects with purely medical tuberculosis. In either case their structure is identical. While the former result from the reaction of the periosteum to the neighboring osteitis, the latter are due to true tuberculous osteomyelitis following internal tubercular disease. The bone-marrow does not participate in these changes, because it has generally undergone fatty degeneration. This explains the absence of sequestra. [M. O.]

4.—Estor, who reports the case-histories of 3 infants with **strangulated inguinal hernia**, aged 3, 4 and 10 months, the last only surviving operation, has collected a table of 232 cases in infants under 2 years of age, from the literature. The condition is relatively rare, one being found to 131 in adults. On the other hand, inguinal hernia without strangulation occurs relatively frequently in infancy. Umbilical hernia shows strangulation more rarely, crural hernia very rarely, in infants. Strangulation is generally seen in pre-existing hernias. It is rare because the inguinal canal offers little resistance and the impelling force determining strangulation is of feeble intensity. Most of the hernias contained only small intestine; next came cecum and appendix; next the appendix alone, generally found perforated. The cecum, omentum, tubes, ovaries, etc., were also found in some strangulated hernias. Symptoms varied, though bloody stools and retention of urine were frequently noted. The operation for the **radical cure** is the only treatment, and it is much less grave in infancy than in adult life. As the strangulation is less tense, the time during which kelotomy may be done successfully is longer than in adults. Appendicular hernia is more serious than strangulated enterocele. Besides, the general condition of the infant enters into the prognosis. [M. O.]

ANNALS OF SURGERY.

August, 1902.

1. Intestinal Obstruction Due to Gall-Stones. Report of Three Cases, With Summary of Five More Cases From the Records of the London Hospital. 1893-1901. H. L. BARNARD.
2. Angiotripsy as a Substitute for the Ligature in Routine Work of General Surgery. OSCAR J. MAYER.
3. Morrison's Operation for Ascites Due to Laennec's Cirrhosis. F. TILDEN BROWN.
4. Congenital Dislocation of Hips. With Report of Cases and Descriptions of a Pelvis Obtained Three Years After Successful Reduction by the Lorenz Method. EDWARD H. OCHSNER.
5. On the Use of the Abdominal Route for Approaching Rectal Tumors. ROBERT ABBE.
6. A Case of Perforating Gunshot Wound of the Stomach and Liver with Posterior Drainage and Recovery. ROSWELL PARK.
7. Complications Following Gastro-enterostomy. WILLIAM J. MAYO.
8. Report of Five Cases of Laparotomy for Intestinal Obstruction. AUGUST SCHACHNER.
9. On a Case of Splenectomy for Leukemic Enlargement. THEODORE A. MCGRAW.

1.—Barnard reports 8 cases of **intestinal obstruction due to gall-stones**. Seven were operated upon and of these 4 died, making a mortality of 57.12%. The frequency of intestinal obstruction due to gall-stones is once in every 45 cases according to the statistics of the London Hospital. A fistula bimuscosa was found in each of the fatal cases. The site of obstruction is usually the lower part of the ileum and the ileocecal valve. As a rule, gall-stones less than one inch in diameter pass spontaneously. The onset is sudden, but the constipation is often not complete. Collapse develops late. The most prominent symptom is severe, continuous, profuse, bile-stained vomiting. Tenderness and distension of the abdomen are not marked. In one case the calculus could be felt through the abdominal wall. [F. T. S.]

2.—Mayer has devised a specially constructed pair of hemostatic forceps and a pair of pressure forceps for the performance of **angiotripsy as a substitute for the ligature in general surgical work**. The vessel to be compressed is grasped by the hemostatic forceps and the crushing supplemented by the pressure forceps applied to the hemostatic forceps. The use of these forceps renders the work of the surgeon more expeditious, obviates the danger of ligature

infection, causes less pain because of the complete crushing of the nerve filaments, and produces a smaller amount of wound secretion because of the perfect hemostasis. The tissues thus treated are not devitalized but are only powerfully compressed. Angiotripsy should not be applied to a friable organ like the liver or kidney or to a dural sinus. [F. T. S.]

3.—Brown reports a case of **epiploxy for cirrhosis of the liver associated with ascites**. The patient is well after an interval of 2½ years. Brown concludes as follows: (1) The more rapid have been the accumulations of ascitic fluid, the greater the reason to provide for long-continued drainage which is to follow the operation, and to expect that very gradual improvement in all symptoms is the most and best which can be hoped for. (2) In these advanced and apparently hopeless cases of rapidly recurring ascitic accumulations, the 3 things of greatest import appear to be: (a) The full appreciation before operation of the necessity and the provision for a constant and thorough aseptic pelvic drainage. (b) The general observance of a rational and aseptic operative technique, such as that used in the third case of Mr. Morrison, and which he followed quite closely in his own case. In other words, the readiness to forego the introduction of personal innovations until those methods which appear reasonable shall have proved faulty. (c) The value of Morrison's adhesive strapping to keep in approximation the denuded peritoneal surfaces, and at the same time to compel the serous effusion to find its only available space in the pelvis, appears to him most evident. The importance of the long continuance of this device he had accentuated on two occasions, when a hospital interne attempted at the end of 4 weeks, and again later, to dispense with the adhesive strapping. Each time an accession of the ascitic fluid to the upper part of the peritoneal cavity was apparent. (d) An unusual vascularity of the granulation tissue forming the infra-umbilical fistula was shown on several occasions, especially during the last stages of dressings, by so considerable a hemorrhage as to require constant plugging. From this the writer has inferred that an important and considerable part of the anastomotic circulation may in this patient's case be maintained by this particular band of adhesions. [F. T. S.]

4.—Ochsner describes the pelvis and femora of a case of **congenital dislocation of the hips** 3 years after successful reduction by the Lorenz method. The reduction was accomplished after 2 unsuccessful attempts when the girl was 4 years and 3 months old. The functional result was perfect. Post mortem, the child having died during a convulsion, the parts seemed to be anatomically normal excepting that no definite ligamentum teres could be found. Five other cases are mentioned, in only one of which attempts at reduction (unsuccessful) were made. [F. T. S.]

5.—See *Philadelphia Medical Journal*, Vol. 9, No. 26, page 1154.

6.—See *Philadelphia Medical Journal*, Vol. 9, No. 24, page 1056.

7.—See *Philadelphia Medical Journal*, Vol. 10, No. 1, page 16.

8.—Schachner reports 5 cases of **laparotomy for intestinal obstruction**: (1) Multiple intestinal strictures of tubercular origin, intestinal resection and ileocolostomy, recovery from operation, later death from general tuberculosis; (2) intussusception, recovery; (3) obstruction due to angulation produced by an adherent Meckel's diverticulum, recovery; (4) intussusception due to lumbricoid, death on the third day; (5) obstruction from a hernia into a retroperitoneal fossa (?). [F. T. S.]

9.—See *Philadelphia Medical Journal*, Vol. 10, No. 1, page 17.

AMERICAN JOURNAL OF MEDICAL SCIENCES.

June, 1902.

1. Observations on the Nature of the Bence Jones Albumin. CHARLES E. SIMON.
2. Paratyphoid Infections. WARREN COLEMAN and B. BUXTON.
3. An Analysis of 71 Cases of Typhoid Fever Treated in the Children's Hospital of Philadelphia During 1901. ALFRED HAND and JOHN K. WALKER.
4. The Frequency of Heredity in Gastro-enteric Disturbances. FRANZ JUNG.

5. Tuberculous Pericarditis. BEVERLEY ROBINSON.
6. A Case of Aortic Insufficiency with Pericarditis, Pleurisy and Mediastinitis. AUGUSTUS A. ESHNER.
7. The Fluorescin of Quinine and Other Remedies in the Cure of Malarial Fever. A. F. KING.
8. A Study of Hyperplasia of the Pharyngeal Lymphoid Tissue. AUGUST LARTIGAU and
MATTHIAS NICOLL, JR.
9. A Case of Intratracheal Colloid Struma. Operation. Recovery. CLEMENT THEISEN.
10. Exencephalic (Iniencephalic?) Monster With Bilateral Harelip and Cleft Palate. ELLIS GIVEN.
11. A Case of Hypernephroma of the Kidney Complicating Pregnancy. GEORGE BOYD and
JOSEPH McFARLAND.
12. Observations Upon Recent Methods of Treating Corneal Ulcers, with Especial Reference to the Use of Carbolic Acid as a Not Infrequent Substitute for the Actual Cautery. SAMUEL THEOBALD.
13. Primary Syphilitic Optic Neuritis. C. A. VEASEY.

1.—Simon contributes a very valuable article upon the nature of Bence Jones albumin. The patient, a woman of 49 years, had severe pain in various parts of the body, and toward the end of the disease a spontaneous fracture of the left femur. Although a diagnosis of multiple myeloma was made, no change was found in a piece of bone that was supposed to be the sternal end of the third rib. A complete autopsy was not obtained. The urine, however, showed throughout the characteristic Bence Jones bodies. It is impossible in an abstract to give any account of the numerous reactions which Simon performed with this albumin in order to determine more accurately its nature. He collects all the cases hitherto cited in the literature—22 in number—and he believes that there is some evidence to prove that the disease may occur in other conditions than multiple myeloma, although the immense majority of cases were of this condition. Therefore the presence of Bence Jones albumin generally indicates the existence of myeloma. On the other hand, there is also evidence that myeloma may occur without the Bence Jones albumin. The quantity that occurs is exceedingly variable, in some cases amounting to 7%, in others to a very small fraction of 1%. There are certain points of difference in the recorded cases. In some the urine becomes turbid at a point a little over 50° C. and clears on boiling. In other cases, including the one that Simon reports, this is not so. It always occurs, however, with the isolated substance in the presence of a certain amount of acid and salts. It does not pass through parchment in dialysis and in different cases shows different reactions with sodium chloride and magnesium sulphate; it is digestible. In a discussion of its nature he gives various reasons for supposing that it is not an albumose, and it is possible that it is related to the globulins. As far as we know it is formed in the tumor masses of the skeleton.

[J. S.]

2.—Coleman and Buxton, after a discussion of the literature of the subject, report the case of a woman, 28 years of age, who was brought to the hospital suffering from typhoid fever. As she was a negress, it was impossible to detect the rose spots; the Widal reaction was negative, excepting at the end of an hour in a dilution of one to 20, a partial reaction was obtained with a culture of typhoid bacilli. The spleen, however, was palpable, the course of the disease was characteristic of a mild attack of typhoid fever, and convalescence was not established until the twenty-second day. On the sixth and twenty-seventh days of the disease blood cultures were made from the vein at the elbow, and a bacillus was obtained that decolorized by Gram, was actively motile in bouillon, gave a gas with glucose agar, grew invisibly on potato and did not curdle milk. This bacillus did not react with the patient's blood in the early stages of the disease, but did react with the blood withdrawn on the twenty-seventh day, in high dilutions. This did not cause agglutination of the typhoid bacilli. The patient's blood also agglutinated cultures of Cushing's and Gwyn's paracolon bacillus and that of Coleman. The blood

of a rabbit immunized to it by subcutaneous injections reacted strongly with the bacillus in strong dilutions. In glucose and maltose a moderate amount of gas was formed, but none in lactobouillon. [J. S.]

3.—Hand and Walker report the statistics of typhoid fever at the Children's Hospital during the year 1901. No cases occurred earlier than the third year, and the maximum number in the seventh and twelfth years, when there were 11 each. Altogether 71 cases were observed. The greatest number occurred in July, when 17 patients were admitted. Of these 65 were white and 6 were colored. This is about the proportion of white to colored admissions to the hospital. All the patients had fever and the majority of them headache and diarrhea. The maximum temperature was 106.6° F. In 22 cases the temperature exceeded 105°. The Widal reaction was present in 56 of 64 cases in which it was tested, and probably would have been present more often if the test had been repeated a sufficient number of times. In 59 of the cases the spleen was enlarged; 52 of the 65 white children showed typical spots. Constipation and diarrhea were of almost equal frequency. There was also delirium in 11, intestinal hemorrhage in 4 and nose-bleed in 3. The diazo reaction was present in 16 of 17 cases. The seventeenth failed to give the Widal reaction on 3 occasions. Otitis media, jaundice, cervical adenitis, with and without furunculosis, noma, diphtheria and cystitis were all noted as complications. In the cases of cystitis the typhoid bacillus was isolated from the urine. Relapse occurred in 6 patients; in 3 death occurred, a mortality of 4.2%. Treatment consisted in rest in bed, liquid diet, the tub bath or, if that were not well borne, sponging with a solution of potassium nitrate. In the cases of diarrhea bismuth was given. In almost all cases whiskey was given, the dose ranging from 30 drops to one or 2 drams every 2 hours. Strychnine was occasionally administered and sometimes turpentine. [J. S.]

4.—Jung has made a most painstaking investigation of a group of families in order to determine whether chronic gastro-intestinal conditions are hereditary or not. In 13 families there was no apparent similarity in the conditions. One family was rather doubtful and in 26 families there was very marked similarity in the degree of acidity. Enteroptosis does not appear to be transmitted to any considerable degree, only 2 of the families in which similarity existed showing it in 2 members each, and 9 in which one member had enteroptosis and another gastropnoia. Hyperacidity appears to be more frequently repeated than any other form of gastric disease. It appears that duplicate instances of gastropnoia, hyperacidity and subacidity occurred in an average of 34.5% of the families. [J. S.]

5.—Robinson discusses tuberculous pericarditis and its treatment. It is usually a fatal disease, although recovery has occurred. Whenever puncture of the heart is required on account of effusion, it may be performed. Probably the best form is that recommended by Damsch in the fifth or sixth intercostal space next to the sternum, and directing the trocar inwardly. The danger is that after repeated aspirations adhesions may occur which seriously cripple the heart. There is no drug treatment. The history of the second of Robinson's cases—the first having been previously reported—shows the patient, a man of 38 years, who was an alcoholic. The symptoms began with pain in the right side, lasting a month, and cough with expectoration of blood-stained mucus. There was pleural effusion on the right side which, injected into a guinea-pig, caused death from tuberculosis. The patient finally died with the symptoms of cerebral embolism. Examination of the pericardium showed tuberculosis with some fluid. [J. S.]

6.—Eshner reports the following case. A man of 40 years had pain in the thorax for 4 months, worse during the night; there was palpitation, cough with expectoration and dyspnea. There was retraction of the interspaces over a large extent of the inferior portion of the left chest. A thrill was palpable over the heart, diastolic in time. A rough diastolic murmur was heard all over the heart, but most distinctly toward the base. There was grating friction

tion at the base; a systolic thrill was produced by pressure over the subclavian arteries; the pulse was typical water-hammer. The interesting feature of the case was that the murmur could be heard through the ear at a short distance from the chest. [J. S.]

7.—King suggests that the efficiency of quinine is due to its fluorescin, and calls attention to the fact that other drugs that produce violet rays are antiperiodic in action. He believes that the violet rays produced by fluorescin destroyed the parasite, and that in the dark quinine is not nearly so efficient. He believes that, if the human race were exposed to quinine for a long number of years, melanosis of the skin would finally be produced as a result of malarial pigment, and the race would become negroes. [J. S.]

8.—Adenoids of the pharynx occurred in 85 of 1,000 cases in the Throat and Nose Department of the Vanderbilt clinic. Patients ranged in age from 19 months to 29 years. In 46 specimens it was possible to make careful studies. No definite lesions were found in the lymphoid tissue, although sometimes changes, which have also been described in diphtheria, were noted. Eleven adenoids were subjected to bacteriological analysis, and 2 cultures showed a predominance of the streptococcus pyogenes, and occasionally staphylococci and the diplococcus lanceolatus were found. These micro-organisms did not appear to be virulent. Microscopical examinations of the tissues for bacteria showed usually merely coccal forms. Seventy-five cases were tested for tuberculosis, by inoculating them into guinea-pigs, and in 12 instances the results were positive. In 8 of these there were lesions characteristic of tuberculosis found in the lymphoid tissue, and in 4 cases such lesions were invariably absent. These tubercle bacilli varied somewhat in virulence. A probable source of infection is the inspired air, although it is possible that the infection may come from the blood. They conclude that adenoids consist essentially of hyperplastic pharyngeal lymphoid tissue. They often contain micro-organisms which are usually various forms of cocci. These usually lie near the surface. Tubercle bacilli occur in about 16% of all cases; they are usually present in small numbers, and in 6% of all cases do not produce the characteristic lesions. When the lesions are present they are near the surface. The pharyngeal tonsil may be a portal or entrance of various micro-organisms. [J. S.]

9.—Theisen reports the case of a woman, 32 years of age, who had a moderate sized goiter. In the fifth month of her third pregnancy she developed dyspnea, and examination showed marked respiratory stridor with thrill. A laryngoscopic examination showed that a tumor of considerable size occupied the lumen of the trachea, and apparently adhered to its posterior wall. As potassium iodide did not control the condition, tracheotomy was performed and a fair-sized tumor removed. Subsequently the patient developed pneumonia; there were signs of renewed obstruction and, when the tracheotomy tube was removed, a mucus plug was found in the trachea. However, with vigorous stimulation with nitroglycerine, she finally recovered and was discharged cured. Dr. Blumer reported that the tumor consisted of thyroid tissue. Theisen collected altogether 9 other cases of this condition, apparently all that had been reported in the literature. All these tumors were situated in the lower part of the larynx and the upper part of the trachea, and attached to the posterior wall, with one exception in which it was attached to the anterior wall. They all occurred in early adult life, excepting one which occurred in the fortieth year. In 8 cases goiter was present. The majority of cases occurred in females—7 to 3 cases. Theisen's case is the only one occurring during pregnancy, and the second one in which the tumor was confined to the trachea. The prognosis of these cases is favorable, because the growth does not tend to recur. In regard to the origin of these tumors there is considerable dispute but Paltauf has apparently shown that in some cases they may be due to direct extension of the trachea. [J. S.]

10.—Given reports an exencephalic monster born at the seventh month of a neurasthenic mother, aged seventeen years. There was no hydramnios. The child had bilateral hare-lip with protrusion of the intermaxillary bone; there was also a spinal cleft. Two excellent X-ray photographs accompany the article. Apparently only 30 cases of this form of monstrosity have been recorded. [J. S.]

11.—Boyd and McFarland report the case of a woman, 30 years of age, who had a tumor in the right side of the abdomen, just below the border of the liver. She was pregnant and after abortion the tumor appeared even more distinct than before. Operation was performed, and a large quantity of thin, dark, offensive fluid removed. The drainage tube was inserted, but a month later the patient died. At the autopsy a large tumor was found in the right kidney which upon section was found to consist of ovoid mononucleated cells, connective tissue cells, plasma cells, leukocytes and fatty tissue. The cells showed considerable degeneration, but their arrangement indicated adrenal tissue, and a diagnosis of hypernephroma was made. [J. S.]

12.—Theobald suggests that in many cases of corneal ulcer pure carbolic acid may be employed in place of the actual cautery. He places this upon a wisp of cotton wrapped about the end of a pointed match-stick, after having anesthetized the eye with cocaine, and then he makes the application. If the ulcer is breaking down, the necrotic walls should be removed with the curette. In many cases of corneal ulcer the ordinary treatment with yellow oxide of mercury and boric acid, perhaps supplemented with atropine, and the internal administration of quinine, is sufficient. [J. S.]

13.—Veasey reports the case of a man, 45 years of age, who 3 months previously had been infected with syphilis. His vision became rapidly impaired, and examination showed papillitis, with concentric contraction of the form and color fields. Mercurial inunctions and increasing doses of potassium iodide produced a cure in 3 months. The patient's wife developed the same condition and was cured in a similar manner. The cases represent a sort of primary syphilitic papillitis. [J. S.]

UNIVERSITY OF PENNSYLVANIA MEDICAL BULLETIN.

July, 1902.

1. Etiology of Postoperative Femoral Thrombophlebitis.
JOHN G. CLARK.
 2. A Study of Four Cases of Extra-uterine Pregnancy, with Reference Especially to Their Etiology.
BROOKE M. ANSPACH.
 3. Vaginal Incision: A Report of Twenty Cases Operated Upon by This Method. C. C. NORRIS.
 4. Treatment of Gonorrhea in the Female.
W. B. SMALL.
 5. Preliminary Anesthesia by Nitrous Oxide Gas. Report of 150 Cases by This Method Compared with 150 Cases of Plain Etherization. C. C. NORRIS.
- 1.—Clark discusses the etiology of postoperative femoral thrombophlebitis. In 25 cases of Clark's series the left leg was affected, in 11 the right leg and in 5 both legs; in 4 cases the operation was confined to the right side with the occurrence of the thrombus in the opposite leg. An interesting and significant point in these cases was the relatively late occurrence of the symptoms. The earliest day was the eighth after operation, the latest the thirtieth. Clark discusses the theories which have been advanced in explanation of the formation of thrombi and concludes with his own theory, as follows: That the usual femoral thrombophlebitis which occurs as a sequel to celiotomy is noninfectious, originating from a primary thrombus of the deep epigastric veins, which is slowly propagated along the line of the vessel until it reaches the external iliac, where it gives rise to a retrogressive thrombus in the femoral vein. Appended to Clark's article is a tabulated chart giving a critical analysis of 41 cases of postoperative thrombophlebitis.

[T. L. C.]

- 2.—Anspach presents a study of 4 cases of extra-uterine pregnancy, with especial reference to their etiology. In

his first case he concludes that the condition was the result of fibroid nodules in the fundus uteri. One of these was so placed anatomically that it pressed upon the intramural lumen of the tube. It was removed with the gestation sac still attached to the inner extremity of the latter. Two of his cases are ascribed to inflammatory changes of which there was ample anatomical and historical evidence. In his fourth case the cause of the condition was salpingitis. [T. L. C.]

3.—Norris describes the operation of vaginal incision and presents a report of 20 cases operated upon by this method. The cases in which vaginal incision is applicable may be arranged as follows: (1) Abscesses in Douglas's cul-de-sac. (2) Puerperal perimetritis or cellulitis. (3) Extra-uterine pregnancies ruptured and completely walled-off by exudates and adhesions. The vaginal route should never be used in recently ruptured cases when the bleeding has not ceased or when it is free in the peritoneal cavity. (4) Pyosalpinx and hydrosalpinx. In the first class it is the operation of election in all cases; in the second class it is the operation of election in most cases after palliative measures have failed; the third class may be subdivided into recent and old cases. In the recent the abdominal operation is alone to be considered, but in cases of old rupture vaginal incision is indicated. Regarding the fourth class vaginal section is not the operation to be selected in the majority of cases, but may be employed when the general condition is such as to make abdominal operation or long etherization extremely dangerous. The technique of the operation is also described.

[T. L. C.]

4.—Small describes the treatment of gonorrhea in the female. The forms of treatment advised in his paper depend upon the parts infected, which he discusses in the following order: (1) Urethra; (2) cervix; (3) vagina; (4) vulva; (5) rectum; (6) inguinal glands. The treatment of the condition, depending upon the parts affected, is described in detail. [T. L. C.]

5.—Norris discusses preliminary anesthesia by nitrous oxide gas. Its advantages are many. It does not taste or smell, and a few deep breaths will produce unconsciousness. In addition, much less ether is required, and consequently there is less nausea and vomiting following the operation. The contra-indications to the use of nitrous oxide gas as a preliminary anesthetic are: (1) Arteriosclerosis; (2) very youthful or very advanced age in the patient; and (3) any of the contraindications to the use of ether. A composite chart of 150 cases in which nitrous oxide and ether anesthesia was employed, in comparison with 150 cases in which ether anesthesia was used show in the first case that the average amount required was 60 grains to anesthetize, compared with 101 1/5 grams, the time required to anesthetize was 3 1-3 minutes compared with 13 1/2 minutes. The total amount used with preliminary nitrous oxide anesthesia was 170 1/2 grams compared with 218, when ether anesthesia was employed. The duration of administration as given in each classification was one hour. The pulse-rate is much lower with the combined anesthesia. [T. L. C.]

THE SCOTTISH MEDICAL AND SURGICAL JOURNAL.

June, 1902. (Vol. X, No. 6.)

1. Dreams. SIR ARTHUR MITCHELL.
2. Cytodiagnosis of Pleural Effusions.

G. LOVELL GULLAND.

3. Notes on Operations Performed on Adults for Congenital Blindness. M. M. KOENIGSBERG.
4. Medicolegal Investigations. W. RAMSAY SMITH.
5. Demonstration of Investigations being Carried on in the Laboratory of the Royal College of Physicians.

2.—Gulland, in his article on cytodiagnosis of pleural effusions, states that the red corpuscles show no change of importance; i. e. pleural fluid is practically isotonic with blood plasma. The polymorphonuclear neutrophils may exactly resemble those seen in the blood and usually do so in fresh effusions. In the cell-bodies are noted: (1) Simple dissolution; (2) fatty degeneration; (3) glycogenic degeneration. The nucleus may simply lose its power of taking up basic stains. The lymphocytes are generally like those in the blood. The only cells which appear in ordinary effusions are the endothelial cells from the surface of the pleura. In tubercular effusion, in the early stage, the cells seem to be mainly polymorphonuclears, but

by the third day these have largely disappeared and their place is taken by lymphocytes. Effusions due to the pneumococcus and streptococcus show at all stages a great preponderance of polymorphonuclears, unaltered or degenerated, as the case may be, and often numerous endothelial cells, fresh or degenerated. In edematous effusions, the cells are almost always very few in number and consist mainly of endothelial cells, often lying together in clumps. In malignant pleurisies, cells of the malignant growth will be found in the fluid, often in great numbers.

[T. M. T.]

3.—The conclusions drawn from Königsberg's article are: (1) In our first application of the sense of sight, we also use the sense of touch on a large scale to ascertain the general appearance and detailed outline of objects, etc., and it is after that only that we arrive at a correct understanding of these objects, and remember them later on; (2) in the very first use we make of the organs of sight, we at once see objects as they are, and not reversed, in spite of their being so reflected on the retina; (3) the cases reported, operated upon at the ages of 28, 18 and 16, clearly prove how little, comparatively speaking, the inhabitants of our part of the world are accustomed to seek medical advice. If such were not the case, they would much sooner have obtained the surgical aid they sought so late in life. [T. M. T.]

July, 1902. (Vol. XI, No. 1.)

1. A Case of Acute Pyelitis in Infancy.

JAMES RITCHIE.

2. Notes on the Symptoms and Treatment of Acute Pyelitis in Infancy. JOHN THOMSON.

3. Gastrojejunostomy. F. M. CAIRD.

4. The School and its Effect upon the Health of Girls.

W. B. DRUMMOND.

2.—Thomson concludes his paper on the symptoms and treatment of acute pyelitis in infancy as follows: (1) In infant girls, when debilitated by any cause, acute pyelitis may be set up by the immigration of the bacillus coli from the bowel; (2) the presence of the disease is sufficient to occasion very high fever, extreme distress and a copious deposit of pus and bacteria in acid urine; (3) unlike any other disease (except malaria), it frequently causes rigors, even in young babies; (4) the presence of anal excoriations has possibly an important etiological significance in these cases; (5) the prognosis (when the case is treated) is altogether favorable, although complete recovery is delayed for many weeks; (6) the only essential treatment consists in the thorough and long-continued neutralization of the acid in the urine by the administration of alkaline remedies. [T. M. T.]

4.—Drummond, in his article on the school and its effect upon girls, gives the following general points which require consideration: (1) Nutrition; (2) physical exercise; (3) suitable clothing, both for ordinary wear and for exercise; (4) early hours and sufficient sleep; (5) the school medical officer. [T. M. T.]

LA SEMAINE MEDICALE.

June 11, 1902.

The Clinical Forms of Acute Tuberculous Pleurisy.

L. BARD.

Bard calls attention to the important role played clinically by the various forms of acute tuberculous pleurisy, and especially to the fact that many of the cases of pleurisy which are ascribed to cold are of tuberculous origin. He refers to the important work done in the study of tuberculous pleurisy by Landouzy and Netter. Bard states that a rational classification of acute tuberculous pleurisy must recognize the nature of the effusion and its quantity; the pathogenic unity of the disease excludes every possibility of a division based on other causations. Tuberculous pleurisy must be studied as tuberculosis of the lung is studied, taking into account its varying factors. He distinguishes localized forms of inflammation, which usually have an acute onset, and in which the pathological lesion may be slight or extensive. His second group includes the cases in which the infection is secondary from the peritoneum, thoracic wall or the lung itself. His third group includes the associated forms. Under this head he includes cases associated with pulmonary tuberculosis; with formation of tuberculous granulations and with general tuberculosis of the serous membranes. Bard elaborates

his general classification and presents a discussion of the films considered. [T. L. C.]

June 18, 1902.

The Accidents of Lumbar Puncture and the Means of their Prevention. G. MILIAN.

Milian states that the operation of lumbar puncture, quite independent of the injection of medicated solutions, is not an operation without danger, and it is sometimes accompanied with serious accidents. He considers serious the immediate accidents and those which follow upon lumbar puncture. Vertigo, a sense of profound weakness, and even complete syncope may occur. He also has seen attacks which resemble a true apoplectic seizure. He alludes to the cases reported by several German clinicians of sudden death following lumbar puncture, but he ascribes these to the excessive amount of cerebrospinal fluid withdrawn (as much as 150 cc.) This has the effect of reducing the intraspinal pressure from 420 to 180 mm. Some of the untoward symptoms which follow the operation itself are severe headache, nausea and vomiting, from the slightest bodily movement. The vomiting, however, is not accompanied by retching. The pulse is accelerated and often irregular. There is a rise of temperature to 38° C. or 38.5° C. Vertigo and syncope are not unusual. Milian believes that the symptoms exhibited are due to the sudden lack of equilibrium induced between the cerebrospinal fluid and the osmotic tension. He believes they may be avoided by securing a spontaneous flow of the fluid. Aspiration, except for the purpose of causing the flow to start, should not be practised. He advises the use of a needle of very small caliber, and states that one or 2 cc. of the fluid is all that it is necessary to withdraw for the purposes of diagnosis. The patient should recline at full length during the operation and for several hours following. The procedure should be stopped at the slightest complaint of the patient. In the treatment of accidents he suggests lowering the head and raising the feet, with injections of ether, or of caffeine if necessary. Headache is a very constant symptom following the operation. He has found that antipyrine is effective in relieving it. [T. L. C.]

June 25, 1902.

Do Clinical Localizations Exist in the Internal Capsule? PIERRE MARIE and GEORGES GUILLAIN.

These writers present an extensive argument supported by post mortem studies of the cases observed clinically, that in the internal capsule of man there is no exclusively sensory territory, and that grave lesions of the capsule and the cortex may not present symptoms of hemianesthesia, the motor pathway occupies the whole of the posterior segment of the internal capsule as far as the posterior angle of the lenticular nucleus. In the lenticulo-optic area, through which the motor fibers descend, it is impossible, clinically, in man, notwithstanding the opinions of anatomists, to localize the distinct areas for the arm, hand, foot, etc. All of the descending motor fibers are intimately associated with each other by their multiform collaterals. When a lesion of any sort exists in some portion of the lenticulo-optic area of the internal capsule, there will follow, clinically, the syndrome of hemiplegia. As an anatomical corollary to this fact they state that a lesion limited to the internal capsule will lead to degeneration of the entire area of the pyramidal tract in the bulb and the spinal cord. [T. L. C.]

July 2, 1902.

"Inermous" Drugs. R. LEPINE.

A New Method of Vaccination. MAURICE BOIGEY.

1.—Lépine mentions in this paper the fact that the administration of certain drugs is at times followed by an unexpected reaction on the part of the patient. This may vary from what he terms an "anomalous exaggeration" of the action of the drug, to one which is a true contrary action. In certain patients the administration of a drug, for instance, in nervous disorders, has given rise to serious symptoms, and it has been often deemed advisable to prescribe the drug in an attenuated form. The means which chemists have utilized to bring about such attenuation are numerous. Lépine mentions examples of sulphoconjugation. It has been found that, when a substance has been sulphoconjugated (that is to say, a hydrocarbon residue substituted to SO_3H), it is very active, relatively to the body from which it is derived. Among the preparations recently

introduced, which have been put through this process, is the phenol bisulphonate of sodium and of mercury. This substance, which is very soluble in water, contains 40% of mercury. In solution it does not yield any of the reactions of the salts of mercury, and its toxicity is very feeble. Lépine has not used this preparation in the treatment of syphilis, but speaks favorably of its effects in lobar pneumonia. He claims that the fever in cases so treated will terminate by lysis, not by crisis. His observation from the one case showed that the resolution did not proceed as rapidly as the defervescence. Some of the drugs submitted to sulphoconjugation; etherification is a method still more generally used. It consists in a combination of an acid with a residue of alcohol or of phenol. This produces very often, but not always, an attenuation of the toxicity of the constituents (thus salol is less toxic than either phenol or salicylic acid). Among this class of preparations are mentioned the carbonate, phosphite and phosphate of guaiacol, etc. Lépine discusses the action of a number of these preparations. [T. L. C.]

2.—Boigey advises the use of a small copper hammer for the purpose of vaccinating. Both ends of the hammer are concave. It is placed in boiling water for about 3 minutes, and then one of its ends is applied to the skin and produces a slight blister. The vaccine is introduced into the serous fluid. This method is convenient if there are a large number of persons to be vaccinated. Three or 4 hammers may be kept in boiling water ready for use. Boigey has found this method especially satisfactory.

[T. L. C.]

LA PRESSE MEDICALE.

June 11, 1902. (No. 47.)

1. The Different Methods of Surgical Anesthesia. CHAPUT.
2. The Treatment of Reflex Muscular Atrophy of Articular Origin. A ZIMMERN.
3. The Treatment of Neuralgia by Injections of Air. R. ROMME.

1.—Chaput reviews the anesthetics in use at the present time. Out of 466 cases of anesthesia, Chaput used local cocaineization in 248, and general anesthesia in 129. Of these 129, ether or ethyl chloride was used first in 103, followed by chloroform; in 25, ether alone was used. His technique is fully described. He concludes that local cocaineization or ethyl chloride is to be preferred for short operations. Cocaineization is also indicated in patients who fear general anesthesia, and in those with any diathesis. It is adapted to superficial laparotomy, hernia operations and many other important operations. It is contra-indicated in children or nervous patients, or for complicated laparotomies. Rachicocaineization is to be preferred for operation on the legs, anus, rectum and genito-urinary organs. It is useful for hernia operations and laparotomy. It may be used for thorax operations and for difficult laparotomies when a general anesthetic is dangerous. General anesthesia is only advised for children, nervous people and for complicated, suprapelvic operations. It is the method of choice for major operations above the pelvis in sound individuals. Ether is the best general anesthetic, but is contra-indicated in old, fat people who cough, or for operations of the face or skull. Chloroform is only to be used exceptionally, when none of the other methods given are applicable. [M. O.]

2.—Reflex muscular atrophy follows some accident or disease of a neighboring joint. Zimmern divides cases into those in which atrophy has not yet appeared, and those with atrophy already present. Before atrophy occurs, massage is absolutely necessary to prevent its occurrence. The only contra-indication to massage is the presence of pus in the joint. When atrophy has already occurred, electricity is indicated, especially the interrupted current. Massage and baths aid in the treatment, with passive motion and exercise. The details of the muscles affected and their special treatment follow. [M. O.]

3.—Romme quotes a letter from a veterinarian named Joly, who first used injections of air in the peritendinous lesions of animals with success. The technique of his method, with an exposition of his results, is given. [M. O.]

June 14, 1902. (No. 48.)

1. Jacquet's Dental Theory of Alopecia.

F. TREMOLIERES.

2. A Graduated Vesical Divisor. F. CATHELIN.
3. The Milk Question. H. LABBE.

1.—That alopecia areata is trophoneurotic in origin, and not parasitic as is claimed by French observers alone, is urged by Jacquet, who noted some close relation between alopecia and dental neuralgia. His investigations show that neuralgia occurs before, with or after the alopecia, in almost all cases. This dental theory of the origin of alopecia is confirmed by a case-history, which Trémolières quotes, a child in whom the condition disappeared after the affected gum had been cauterized. The details of the theory, with many diagrams, are reviewed. [M. O.]

2.—Cathelin describes in detail, with diagrams to explain its use, a graduated vesical divisor which Professor Guyon has had constructed for collecting the urine from the ureters separately and simultaneously. Not only is the bladder divided into 2 separated compartments, but means for collecting the urine from each side are provided. Cathelin has used this divisor in 22 cases with success. It is especially applicable in small bladders or those which are painful. [M. O.]

3.—Labbé reviews the chemical composition of milk, stating that its food value depends on the proteids, sugar, and fat contained in it. A brief exposition on milk for infant feeding, and on the common dilution of milk follows. The real reasons for the high alimentary value of milk have, as yet, not been discovered. [M. O.]

June 18, 1902. (No. 49.)

1. Trunecek's Serum. LEOPOLD-LEVI.
2. Extirpation of the Palatine Tonsils Piece by Piece.

G. MAHU.

1.—Léopold-Lévi reports excellent results from injections of the Trunecek serum in headache, tinnitus aurium, neurasthenia, arteriosclerosis, deafness, etc. In all a marked improvement persisted from 5 to 6 months after treatment had ceased. Rectal injections alone seemed of little good. But the serum was of service hypodermically or as a dried powder. A number of cases of nervous diseases follow, in which improvement resulted upon the continued use of injections of the Trunecek serum, with or without the dried powder. [M. O.]

2.—When tonsillotomy or cauterization of the palatine tonsils cannot be performed, extirpation piece by piece is advised. The technique of this position follows in detail, with the after-treatment. [M. O.]

June 21, 1902. (No. 50.)

1. Serous Meningitis of Otitic Origin.
2. The Diagnostic Value of Finding Typhoid Bacilli in the Blood. BUSQUET.

P. LECENE and H. BOURGEOIS.

1.—Lecène and Bourgeois report 9 cases of serous meningitis of otitic origin, one of which was their own, recovery following bilateral operation with the evacuation of a large quantity of cerebrospinal fluid. In all cases there was chronic otitis media, with headache, papillary stasis, fever, vomiting, coma and convulsions. Paralysis are rare. The diagnosis from brain abscess is almost impossible. Recovery generally followed evacuation of some of the cerebrospinal fluid. [M. O.]

2.—Contrary to general opinion, Busquet believes typhoid bacilli are almost constantly present in the blood in typhoid fever. They were found in 43 cases examined, generally at first examination, though 2 examinations were necessary in 7 patients, 3 in 2 patients and 4 in one patient. In 29 patients they were found alone; in 14 there was mixed infection. On account of the difficulty in obtaining blood from the arm, this method is only applicable in hospitals. His technique is given in full. [M. O.]

June 25, 1902. (No. 51.)

1. The Inclined Position. F. JAYLE.
2. The Diseases of Nutrition. ODILON MARTIN.

1.—Jayle gives the history of the inclined, Trendelenburg position used for operation, with modifications. Many diagrams illustrate this article. [M. O.]

2.—Martin shows that the theory of hypo-acidity is not tenable. In the diseases of nutrition phosphoric acid may be given only for pronounced nervous asthenia with hypotonus, hepatic and renal insufficiency and abundant gastric fermentation. In most cases the alkaline treatment is indicated. But the urinary acidity and the amount of urinary phosphates are not of diagnostic value, as was formerly claimed, nor are they indications for the alkaline treatment. [M. O.]

Society Reports.

NATIONAL ASSOCIATION OF HOSPITAL SUPERINTENDENTS.

Fourth Annual Conference.

Philadelphia, October 14, 15 and 16, 1902.

Dr. J. T. Duryea, Brooklyn, President.

TUESDAY, OCTOBER 14.

After a prayer by the Rev. Dr. K. B. Tupper and addresses of welcome by the Mayor of Philadelphia, Judge Ashman and Daniel Baugh, the president delivered the annual address.

Dr. Walter Lathrop, Hazleton, opened the discussion upon hospitals and politics. He said that State hospitals, as well as municipal institutions, have a board of managers or trustees who are responsible to the public through the several powers that make appointments. In some instances these boards, or a greater part of them, change with each political change, without any regard for ability or services rendered. Following such changes there may be a general shake-up in the institution itself, and favorably distributed where they are thought to count most in political strife, or the control of votes for future use. In Pennsylvania all appropriations for institutions must be recommended and approved by the Board of Public Charities and while some may be favored more than others, by means of political pull, and in fact are thus favored, the tendency of the Board is to deal justly with all. Some hospitals ask for more than is necessary, and expect to be cut down to about what is needed. Others, wishing to be honest in their request, ask for what is absolutely needed, and in many instances the honest institution is left behind. There is no doubt that politics plays a strong part in the securing of funds and in the administration of many of our institutions, just as it controls votes and swerves men to the side of wrong, just as it exists now and will continue until the millennium. Dr. John Fehrenbach, Cincinnati, continuing the discussion, said that, in States where private hospitals receive partial support from the State treasury it is understood that the State has the privilege of furnishing a limited number of patients to be treated free of charge. But the privilege accorded the State is frequently grossly abused by members of the Legislature that make the appropriation. This is not only unfair to the taxpayer of the State, an injury to the medical profession, and an injustice to the hospital, but it tends to pauperize the very people the members of the Legislature select as the recipients of the State's bounty. There is a species of patronage of which the representatives of the donor have availed themselves and, in many cases, for the sole purposes of discharging their past obligations, or strengthening their positions as candidates for additional public favors. Experience has demonstrated that, wherever politics enters the portals of a hospital, it has not been for the benefit or welfare of that institution, nor for the benefit of the political party that attempted to exercise control. On the other hand, where politics does not attempt or is not permitted to exercise control of institutions organized for the sole purpose of succoring the sick and the hurt, and where honesty, efficiency and merit alone make the tenure of those employed secure, such institutions are assured of the very best service and the patients of the best care, and their speedy recovery is made more certain. Dr. G. H. M. Rowe, Boston, said that there was a constant fight in Boston to keep politics out of the hospitals. Dr. J. M. Peters, Providence, said that it was exceedingly annoying to have City Councilmen coming with badges and writing letters on official paper, asking for favors.

WEDNESDAY, OCTOBER 15.

Dr. G. H. M. Rowe opened the discussion upon hospital organization. He said that the management of a hospital is too often made up, not with reference to real requirements of experience and ability, but because the person chosen represent money, and money alone, or because the "go to church," or for some other "most lame and impotent conclusion." The hospital supported or aided by

State or municipality is compromised by the power of party politics; a two-penny man struggles with a \$10,000 job. In an extended experience he has often been asked "Do you believe in having physicians on the Board of Managers?" If we should refer this question to the medical staff of some well-known hospitals, we should be quickly advised that a majority of the managers ought to be medical men. The average medical man is a gentleman, a delightful companion and a man of parts: but doctors, when associated in corporate matters, are often too self-seeking. With an eye out for their profession, they are inclined to be aggressive, and, naturally, under such circumstances, are not a gracious, peaceful and easily co-operated with body of men. This professional enthusiasm is apt to obscure an all around view of hospital government. A crank sees a thing clearly, but never sees it in its relations. While the superintendent and executive officer is subordinate, this need not prevent him from educating his trustees. The superintendent should be present at board meetings; he may prevent the repetition of experiments that have failed elsewhere, and the misapplication of money and energy. He once asked a superintendent "What are you doing nowadays that's new?" He replied: "Nothing much; only educating my new trustees." There is much cause for congratulation in the perfection already attained. Civil hospitals have increased more rapidly in America than in any other nation; our hospital construction and organization have been a marvel to other countries, and have set a standard which even Paris is endeavoring to attain by using money donated by an American. But the chief value of the present is to get a better future out of it. Dr. Charles O'Reilly, Toronto, said: "I never try to cover up news. If a man in his delirium jumps out of a window, or there is an accident, I tell the newspapers all about it. It is better than trying to conceal it. The newspapers treat you more fairly, and the public has more confidence, because it finds that there is nothing to conceal." J. P. Woodward, McKeesport, urged that hospital superintendents give the newspapers all the news possible, within the bounds of propriety, believing that opposition of the press was injurious. Dr. Peters believes that the newspapers and the ambulance are the best advertising mediums that a hospital can have. Other papers on this subject were read by Dr. H. B. Howard, Boston; A. P. Putnam, Detroit, and Miss H. Wishert, Warren.

THURSDAY, OCTOBER 16.

Dr. H. M. Hurd, Baltimore, discussed the **dispensary service** in hospitals. He said: "Until we do away with the commercial-medical schools, which divide the hospitals and dispensaries into so many medical camps, dispensary abuses will continue to exist. Many of the abuses of the dispensary system are caused by too many medical schools. The competition of students is too strong. If there were fewer graduates annually, there would not be the need of so many dispensaries. Until we get rid of the competitions of medical schools, we shall not be able to remedy these abuses." The discussion was continued by Thomas Waring, Camden; Dr. C. I. Fisher, New York; Dr. L. C. Randall, Buffalo; and Miss Mary E. Richmond, of Philadelphia. She contended that, sociologically, the deserving poor felt like paupers when they accepted the free advice offered in dispensaries. The great benefit to them was that they could get expert treatment free from the best specialists, which their means would not permit them to pay for, and that the poor man had a right to this, in his efforts to get well. On this ground he lost none of his self-respect by receiving free treatment. The bane of all charitable work is that there is altogether too much working for figures; too much of a desire to make a big showing at the end of the year. C. S. Howell, Pittsburg, said hospitals should be built far removed from factories, railroads and congested districts, with large grounds, so as to insure plenty of light and air. He argued, however, that there should be small emergency hospitals in the different parts of large towns for treating accidents and other urgent cases, before the patients are removed to the hospitals proper. In discussing the **modern hospital**, Dr. John Fehrbach said that the architect invariably puts all his talent into the designs of the outward construction of the building, and has little left for the inside. So that it is attractive, he does not care whether you have a place to

sleep in or a closet for your clothes. The inside is more important than the outside; the outside should yield to the interior construction. The first thing to be considered in the building of a hospital is the patient. When we do that, we will have the model hospital. The hospitals of to-day are not properly ventilated. A hospital should have plenty of room, plenty of sunshine and plenty of pure air. The model hospital will be one-story high, with spacious grounds; built of fireproof material, plaster and walls non-absorbent, tiled throughout, and with round corners, where dust cannot collect. Dr. G. H. M. Rowe also contended for simplicity in construction. Miss Maud Bamfield, Philadelphia, asserted that American hospitals surpass those of any other country, both in cost and suitability, yet are very far from being perfect. Mrs. H. M. Laurence, Greenfield, Mass., spoke on "Hospital Equipment."

The following officers were elected: President, John Fehrbach, of the Cincinnati Hospital, Cincinnati; vice-president, Dr. Charles O'Reilly, superintendent of the General Hospital, Toronto; secretary, Daniel D. Test, superintendent of the Pennsylvania Hospital, Philadelphia, and treasurer, A. W. Shaw, superintendent of Harper Hospital, Detroit. The association will meet next in Cincinnati, October 20, 21 and 22, 1903.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Meeting Held October 2.

Dr. John M. Fisher, President.

Dr. T. A. Erck read a paper on **fibroma of the ovary, associated with ascites**, in a married woman, 24 years old, married 5 years, with a child 4 years old. A year ago menstrual periods became irregular, and an abdominal swelling was noticed. Examination revealed ascites and a hard nodular mass, about the size of a coconut, in the hypogastrium. Laparotomy permitted the evacuation of several gallons of clear straw-colored fluid, and both ovaries were removed. The right ovary contained a fibroma; the other ovary was sclerotic and cystic. The patient made an uninterrupted recovery. Dr. R. A. Cleemann then presented specimens of **fibromatous degeneration of both ovaries**, reporting the case-history. Dr. E. E. Montgomery noted the frequency of ascites in such growths. It may be due to pressure of the growth, to degenerative processes in the growth, or to torsion of the pedicle. Dr. J. C. Da Costa said that pure fibroma of the ovary is very rare. Dr. F. H. Maier reported a case without ascites. Dr. J. M. Fisher commented upon the fact of Dr. Cleemann's case having fibroma of both ovaries. Dr. Erck, in closing, said that the theory of ascites from mechanical causes did not appeal to him.

Dr. F. H. Maier read a paper entitled **hydrops tubæ profluens**, reporting 2 cases in detail. He called attention to the cause of obstruction, as compared to occlusion and obliteration from inflammatory processes. The differential diagnosis, the present status of the condition and the literature were considered. Dr. C. P. Noble said that he had never seen such a case. He believes discharge of the tubal contents through the uterus to be exceedingly rare. Dr. A. J. Downes drew attention to a similar case which he had reported. Dr. E. E. Montgomery reported a somewhat similar case.

Dr. C. P. Noble read a paper on the **significance of the temperature in the diagnosis of extra-uterine pregnancy during the period of collapse from hemorrhage**, reporting the clinical history of a case of doubtful diagnosis. After reaction from collapse due to hemorrhage from ectopic pregnancy, a rise of temperature is common, due to plastic peritonitis. Yet in all cases in which the patient was seen during primary collapse from hemorrhage, there was subnormal temperature. A married woman, aged 34, had 2 children and one miscarriage. She missed one menstruation. Examination a month later led to the diagnosis of uterine pregnancy. The patient was suddenly seized with severe epigastric pains, faintness and vomiting. A physician made the diagnosis of acute indigestion. Dr. Noble found her pale, with a pulse of 120, skin cool, mind clear and abdomen distended. Pelvic examination disclosed nothing abnormal. The absence of menstruation, the appearance of the patient, the condition of the pulse and the

persistence of faintness were suggestive of hemorrhage from extra-uterine pregnancy. The vaginal temperature was 100° F. Operation the next day disclosed the abdomen full of fluid and clotted blood, due to ectopic pregnancy. She made a good recovery. Dr. E. E. Montgomery reported the case of a young woman of 20, who had not menstruated for 2 years. She had recently been taken ill, suffering considerable pain. Examination showed a mass upon the left side, extending nearly to the umbilicus. A second mass could be felt on the right side in front, but lower down in the pelvis. An attempt was made to explore the vagina, but its orifice was found guarded by an unruptured hymen. The age of the patient, the manner of life, the absence of menstruation for 2 years and her general appearance cause him to diagnose **tubercular disease of the tubes**. Operation disclosed free blood in the peritoneal cavity. This resembled the rupture of an ectopic gestation. Both tubes contained pus, that on the left side mixed with blood. Though tubercle bacilli were not found, Dr. Montgomery attributes the case to tuberculosis. The twisting of the pedicle was undoubtedly the cause of hemorrhage. Dr. J. M. Fisher reported a case resembling that described by Dr. Noble. Dr. T. A. Erck then exhibited a specimen of a fibroid developing in the posterior wall of the cervix. The ovaries had been removed 8 years previously.

JOURNAL DES PRATICIENS.

July 12, 1902. (16me. Année, No. 28.)

1. Cytodiagnosis in Meningeal Tuberculosis. LANDRIEUX.
2. The Treatment of Premature Infants. C. HAHN.

1.—A man of 35 had been ill 3 weeks with headache and albuminuria, his condition having been diagnosed uremia. Hyperesthesia and Kernig's sign appeared. Upon lumbar puncture the cerebrospinal fluid spurted out and showed large numbers of lymphocytes on examination. This made the diagnosis **tuberculous meningitis** and death occurred a few days later. [M. O.]

2.—Premature infants need heat, a warm room, hot baths and hot bottles. They should be nursed regularly and given water between nursings. If the temperature remains low, an incubator becomes necessary. For gastro-enteritis lactic acid and alkalis are indicated, never salol, opium or bismuth. Enteroclysis may do good. In dyspepsia the milk should be diluted. In thrush use an alkaline mouth wash. Oxygen and artificial respiration are to be used for asphyxia, atelectasis, etc. Hot baths and stimulants are indicated in jaundice, pneumonia, edema, biliary infection, etc., but injections of normal salt solution and blisters are never to be given. [M. O.]

July 19, 1902. (16me. Année, No. 29.)

1. Thyroid Medication in Exophthalmic Goiter. GABRIEL GAUTHIER.
2. Syphilis of the Testicle. G. DIEULAFOY.

1.—Gauthier insists upon the efficacy of thyroid medication in exophthalmic goiter, reporting 5 case-histories in which his success is demonstrated. Whether the goiter was myxedematous, existed before other symptoms or was of infectious or neuro-arthritis origin, he gave thyroid gland. There seems no doubt that the integrity of the parathyroid glands prevents exophthalmic goiter. But parathyroid glands are very hard to procure as a medication. Thymus gland has also been given. But the use of fresh thyroid glands or of iodothyrene is to be preferred. [M. O.]

2.—Syphilis of the testicle is frequently found, either as secondary epididymitis or as tertiary sclerogummatous orchitis. Epididymitis is generally bilateral, being sudden or insidious in onset. Orchitis is difficult to diagnosticate, but improves upon antisiphilitic treatment. Atrophy of the testicle may follow. An atrophic, parasiphilitic testicle may be noted with hereditary syphilis. The treatment of all forms of syphilis of the testicle is by daily mercurial injections for several weeks. [M. O.]

Original Articles.

A FURTHER REPORT UPON THE TREATMENT OF
TIC DOULOUREUX BY DIVISION OF THE
SENSORY ROOT OF THE GASSERIAN GANGLION.

By CHARLES H. FRAZIER, M. D.,

of Philadelphia.

Professor of Clinical Surgery, University of Pennsylvania.

and WILLIAM G. SPILLER, M. D.,

of Philadelphia.

Assistant Clinical Professor of Nervous Diseases and Assistant Professor of Neuropathology, University of Pennsylvania.**

REMARKS BY DR. FRAZIER.

In June, 1901, I reported to the Surgical Section of the American Medical Association, then in session at St. Paul, the results of a series of experiments upon dogs conducted by Dr. Spiller and myself with a view toward determining the feasibility of dividing the sensory root of the Gasserian ganglion for the relief of tic douloureux or trifacial neuralgia. In December of the same year I reported to the Academy of Surgery of Philadelphia my experience in the performance of the operation upon the human subject. But two months had elapsed between the time of operation and the announcement of the results, and while at that time there was absolutely no recurrence, I did not feel as though sufficient time had elapsed to warrant my considering the relief as permanent. As this operation had been performed but once upon the human subject, and as it overcomes many of the difficulties besetting the extirpation of the ganglion, it is only proper that the record of the case should be made public now that after the lapse of a year the time has arrived when we can justifiably regard the recovery as permanent.

The history of the case is briefly as follows:

A male, aged 68 years, had been a sufferer from neuralgia of one or more of the branches of the trifacial for a period of five years, during which time he had undergone 4 peripheral operations. In October, 1901, in the surgical clinic of the University Hospital, I divided the sensory root of the Gasserian ganglion. Convalescence was uninterrupted and on the 2d. of November the patient was discharged from the hospital. At this time there was complete anesthesia over the area corresponding to the distribution of the trifacial nerve, there had been no recurrence of the neuralgic attacks, there were no corneal ulcers on the eye of the affected side. In other words the immediate operative results were perfect. Recently Dr. D. J. McCarthy, who had referred the case to me, made, at my request, a thorough examination of the patient the pith of which I take pleasure in presenting to you. The area of anesthesia corresponds in extent to that recorded upon his discharge from the hospital; the cornea and conjunctiva on the affected side are completely anesthetic; there has been no recurrence of pain and the patient's mental state reveals marked improvement since the operation.

This, briefly, is the clinical record of the case to the consideration of which I invite your attention. Having reviewed the history of the operation and alluded to the history of one successful case, there remains to review the *rationale* of the operation and its claim of superiority over the only other radical treatment, that of complete extirpation of the

*The patient was presented at a meeting of the College of Physicians of Philadelphia, Oct. 1, 1902.

**From the William Pepper Clinical Laboratory. Phoebe A. Hearst Foundation.

ganglion. The operation depends for its immediate success upon the complete division of the sensory root of the Gasserian ganglion, and for its permanent success upon what may be called the inability of this root to undergo regeneration. Dr. Spiller made a careful microscopical examination of seven specimens of the Gasserian ganglion and its roots, removed from as many dogs upon whom I had practised division of the sensory root, and although these experiments were not fully as satisfactory as could be desired, as a result of his studies he concluded that "further study is necessary before we can be convinced that regeneration of sensory nerve roots in man occurs, and that full restoration of function is possible after division of sensory nerve roots." Not only is this conclusion warranted by the experimental work above alluded to, but it is a logical deduction of the experiments and investigations of other observers. Granting, then, that from the standpoint of the neuropathologist the *rationale* of this operation is based upon a foundation supported by sound and scientific reasoning, it remains for me to enumerate and demonstrate the advantages claimed for division of the sensory root as against the extirpation of the ganglion.

1. It obviates a number of difficulties. Every surgeon will frankly admit that hemorrhage is the greatest bugbear in operations upon the Gasserian ganglion and will hold it accountable for many failures and many fatal issues. Hemorrhage occurs, generally speaking, from three sources: (a) From the middle meningeal artery, (b) from the emissary veins, (c) from the cavernous sinus. In the first two instances hemorrhage may be described as only troublesome, but in the last as alarming. In so far as the middle meningeal artery is concerned, neither of the two operations under discussion can claim an advantage over the other.

As to the second source of hemorrhage, this seems to be in proportion to the number and firmness of the dural attachments. The nearer we approach the ganglia, the firmer the adherence, and the correspondingly freer the bleeding. Inasmuch as the ganglion receives its greatest bloodsupply from below, surgeons are advised, in preparing to extirpate the ganglion, to put off elevation of the ganglion till the latest moment in order to postpone what degree of hemorrhage is unavoidable. In this particularly one can justly claim for the operation, which leaves undisturbed the attachments of the ganglion to its unyielding base, an advantage over one, the execution of which invades this source of free and troublesome hemorrhage. Not only is this source of bleeding avoided, but a considerable amount of time is saved which would be required to separate the ganglion from its base and to control the bleeding while this step of the operation is being performed. Hemorrhage of a serious and alarming nature follows injury from the cavernous sinus. This vascular channel, being in intimate relation with the internal aspect of the ganglion, is exposed to danger once the operation begins to free it from the ganglion. Confining, as we do in practising division of the sensory root, our manipulations to the root itself and to the posterior aspect of the ganglion, we work at the point of greatest safety in so far

as the cavernous sinus is concerned. Granting that in the operation which has for its aim and object simply division of the sensory root we avoid sources of hemorrhage both troublesome and alarming, necessarily invaded in practising extirpation of the ganglion, we pass on to the consideration of other operative difficulties that give us no concern if we stop short of the extraction of the ganglion.

It goes without saying that the exposure of the ganglion is by far less difficult than its extraction, and that the extraction of the ganglion is the step of the operation which, above all others, tests the skill, the dexterity and the patience of the operator. The ganglion and its three divisions are so firmly bound down to the base of the skull that their liberation is of itself a most perplexing undertaking. Once the ganglion is exposed, we have made all the preparations necessary for the division of the sensory root without going a step further, without exciting one whit more hemorrhage, without running any further risk of injuring adjacent structures. In other words, one operation is practically complete before those difficulties common to the other operation have been approached. So much for the avoidance of difficulties. Secondly, **the avoidance of injury to adjacent structures**, more particularly (a) the motor root of the ganglion, (b) the sixth nerve and (c) the cavernous sinus. As to the latter, allusion has already been made to the manner in which the possibility of injury to this structure is reduced to a minimum by leaving undisturbed the internal aspect of the ganglion. As to the motor root of the ganglion, my experience goes to prove that it is quite possible to divide the sensory root without disturbing the motor root. On the other hand, in practically every operation in which the ganglion has been removed the motor root has been destroyed. Its destruction causes such annoyance to the patient as would follow paralysis of the muscles of mastication on the affected side. Should the neuralgia involve both right and left trigeminus, what is only an annoyance becomes a serious complication. The sixth nerve, or *abducens*, is in such intimate relation with the ophthalmic branch that division of one is almost impossible without division of the other, and inasmuch as in extirpation of the ganglion each peripheral branch must be divided, it is a matter of great difficulty in performing this operation to save this cranial nerve. The third claim for the operation is a **reduction in the rate of mortality**. The operation has not been generally adopted, and there are no statistics at hand upon which to estimate the mortality. But from our knowledge of the conditions that affect the mortality-rate in other operative procedures, it is only reasonable to predict that the operation which is the more economical as to time, which is attended with considerably less hemorrhage, which avoids injury to important structures adjacent to the field of operation, which involves in its performance less tissue traumatism and indirectly eliminates the predisposition to infection, which is, comparatively speaking, easy of execution—I say it is reasonable to predict that this operation will lower the mortality-rate. During the past two or three years such have been the improvements in the technique that the mortality is already material-

ly reduced, so that we need no longer regard operative attacks upon the Gasserian ganglion and its roots as belonging to the desperate "kill or cure" class of surgical measures.

I have already received so many inquiries from surgeons in various parts of the country that I am disposed to believe this modification of the surgical treatment of trifacial neuralgia is now being given a very fair trial and may be eventually adopted. All that has been claimed for the newer operation is based upon substantial evidence. The whole idea from its conception has been developed in a perfectly logical manner; its development has been the result, first, of *a priori* reasoning, then of experimentation upon the lower animals, then upon a painstaking neuropathological study into the question of regeneration of the central nervous system, then upon the elevation of a technique and, finally, upon the performance of the operation upon the human subject, with its successful issue.

REMARKS BY DR. SPILLER.

My observation of a number of operations, the aim of which has been the removal of the Gasserian ganglion, has deeply impressed me with the difficulties of the procedure usually resorted to by the surgeon in his final effort to obtain relief from the sufferings of tic douloureux. The mortality of Gasserian ganglion operations, as given by Tiffany, 22.2 per cent., is so great that the neurologist refers his patient with tic douloureux to the surgeon with hesitation; and yet the pain is so intense that often the patient is willing to take any risk in his endeavor to obtain relief. The temptation to suicide in some cases is very real. It is not unlikely that many unsuccessful or fatal cases are never reported, and that the mortality of the operation is greater than that given by Tiffany.

Having these facts in mind, I suggested in a paper published in collaboration with Dr. W. W. Keen, in 1898, that division of the sensory root of the trifacial nerve¹ would probably give the relief from pain that might be hoped for from the removal of the Gasserian ganglion, and probably would be a less serious operation. I requested Dr. Frazier to employ this method in a case of tic douloureux, and here I take the opportunity to express my satisfaction that the division of the sensory root of the trifacial nerve has been done in this first case by so skilful a surgeon. Had any failure occurred at this time, the operation might have been rejected as impracticable.

Even the division of the sensory root is so formidable an undertaking that one cannot resort to it lightly, and he may justly demand the evidence on which the operation is based. In the paper published in 1901 by Dr. Frazier and myself², I endeavored to show that the possibility of regeneration of the sensory root of the trigeminal nerve after division is remote, and it is not necessary to reiterate what was said at that time. I have shown that, while peripheral nerves usually regenerate freely, it does not follow necessarily that the sensory root of the Gasserian ganglion or the sensory root of the

spinal ganglion behaves in a like manner. The investigations of Bethe³ lead us to believe that only those nerve fibers that are supplied with sheaths of Schwann have the possibility of regeneration. Startling as the statements of Bethe are, they have been confirmed by Ballance and Stewart⁴, and in these statements we have an explanation why regeneration is common in peripheral nerves and rare, if it occurs at all, in the nerve fibers of the central nervous system, inasmuch as the latter possess no sheaths of Schwann. Ballance and Stewart, after performing a large number of experiments, reject the views on regeneration so widely held, viz., that the new axis cylinders in a regenerating nerve are direct outgrowths of the axis cylinders in the central segment of the divided nerve, and they hold that the new nerve fibers in the distal segment of a divided nerve—axis cylinders, medullary sheaths and neurilemmata—are formed from pre-existing cells in the distal segment itself. In the distal segment of a nonunited nerve, regeneration of axis cylinders and of medullary sheaths takes place, although full maturity of the nerve fibers is not attained unless the distal segment be joined to the proximal, so that their fibers may become functionally continuous. The neurilemma cells take on an active neuroblastic function and give rise to new axis cylinders.

This remarkable confirmation of Bethe's findings causes us to believe that the former teaching concerning regeneration of nerve fibers must have been incorrect, and in the acceptance of an almost abandoned theory, now revived, we probably have the explanation for the durability of the relief from pain in the patient on whom Dr. Frazier has operated. If nerve fibers have grown out from the nuclei of the sheaths of Schwann of the sensory root of the trifacial nerve in this case—and that is doubtful—they evidently have not been able to extend beyond the portion at which the sheaths of Schwann cease, namely at the entrance of the root into the pons. The motor root in this patient has not been restored any more than the sensory, for there is still paralysis of the muscles of mastication upon the operated side.

It may be urged by some that one year is not sufficient time for a determination of the permanency of the relief in this case, and that, even after one year, return of pain has occurred after peripheral resection of the trifacial nerve. I doubt very much whether pain has first recurred after a year in any case in which the anesthesia in the area of the resected nerve has been complete one year after resection, or the muscles of mastication remained paralyzed so long a time. The course of the nerve is not destroyed by peripheral resection, and the relation of the parts are such that the surrounding tissues afford a means of conduction for the young nerve fibers. This is not the case after division of the sensory root of the trifacial nerve. The peripheral end of the divided root doubtless retracts, and it is not probable that the delicate young nerve fibers—if we grant that they are formed at all—could find their way across the subdural space and penetrate

1. Keen and Spiller, American Jour. of the Med. Sciences, Nov. 1898.

2. Spiller and Frazier, Philadelphia Med. Journal, 1901, No. 2.

3. Bethe. Abstract in Centralblatt fuer Nervenheilkunde und Psychiatrie, July 1901, p. 440.

4. Ballance and Stewart, "The Healing of Nerves," Macmillan and Co., 1901.

the dense transverse fibers of the middle cerebellar peduncle, and the longitudinal fibers of the pyramidal tract to reach the sensory nucleus of the trigeminus situated deep within the pons, and thereby establish a connection with the brain.

I would urge that in future operations the sensory root should be divided close to the pons, so as to leave no part of the root containing sheaths of Schwann in connection with the pons, and that as much of the root should be resected as can conveniently be cut.

The absence of all corneal changes in the case operated on by Dr. Frazier seems to indicate that the Gasserian ganglion may exert a trophic influence over the peripheral branches of the trigeminus and, if this be true, the leaving of the ganglion *in situ* was another very decided advantage. The hope of avoiding ocular complications was one of my inducements for urging the division of the sensory root.

We may expect some paresthesia, as numbness, to be felt in the face after the operation on the sensory root, just as it occurs after removal of the Gasserian ganglion, but this is not pain and is somewhat like the paresthesia felt in an amputated limb and referred to the portion amputated. It is possible that the paresthesia of the face is caused by functional disturbance of the central fibers of the trigeminus passing to the cerebrum.

Neither Dr. Frazier nor I would claim more for the operation of resection of the sensory root of the trigeminus than is justified by the results of one successful case, and we recognize fully that the testimony and experience of others are needed concerning the advisability of this operation. We feel, however, that one successful case is not to be ignored, and we hope that others may be induced to employ the division of the sensory root for the relief of tic douloureux.

I was present on October 16, 1902, when Dr. W. W. Keen resected a portion of the roots of the Gasserian ganglion in another case. Neither he nor any of the others present, including Dr. Frazier, was able to identify the motor root as distinguished from the sensory. Dr. Keen expressed the opinion that from the operative point of view it was a much less difficult operation than avulsion of the ganglion, chiefly because of the lessening hemorrhage which left the operative field much more free.

THE PREVALENCE OF HERPES ZOSTER.*

By MAX JOSEPH, M. D.,
of Berlin, Germany.

A few years ago Dr. J. Abbott Cantrell wrote an article on the general and special occurrence of herpes zoster (*Philadelphia Medical Journal*, March 6, 1898), using a great number of cases as the basis of his paper. The question of the frequency of herpes zoster had been discussed before, in numerous articles, with reference to age, habits, sex, occupation, etc., but in most of these works the points in question were treated but incidentally or partially. Some of them only considered epidemic herpes zoster; others discussed but a single question, while the majority had but a comparatively small amount of material under observation. Cantrell's work is based upon 193 cases of herpes zoster, observed during 20 years, among 19,492 patients

with skin diseases. He groups his cases according to age, sex, occupation, race and localization, and then discusses the question of the frequency of herpes zoster under each heading. Observations made in my dispensary upon the prevalence of herpes zoster have already been published by my assistant, Dr. E. Hoennicke (*Berliner klinische Wochenschrift*, 1901, No. 30). My material consisted of 164 patients with herpes zoster, seen among 15,603 skin disease cases in 10 years. During this time 30,138 patients attended my dispensary for skin and venereal diseases. With special reference to Cantrell's work, I intend to discuss the following questions: (A) The frequency of herpes zoster, and (B) the occurrence of herpes zoster with relation to (1) sex, (2) age, (3) locality, (4) occupation and (5) season of the year.

(A) *Frequency of herpes zoster.*—During the first 5 years Cantrell found the percentage to be 1.03 per cent.; the second 5 years, 1.003 per cent.; the third 5 years, 0.8 per cent., and the fourth 5 years, 0.9 per cent. For the first decade his observations showed 1.10 per cent.; for the second 10 years, 0.9 per cent. I shall omit cases of gonorrhea with all its complications, soft and hard chancres, and syphilis affecting the genitalia. Therefore, in my statistics only certain cases of herpes zoster are considered. Cases of herpes on the mouth and genitalia have only been counted when the affection was purely unilateral, leaving out cases of simple herpes labialis and progenerialis. During 10 years in my dispensary the frequency for the first 5 years was 1.101 per cent.; for the second 5 years, 1.17 per cent.; for the 10 years together, 1.06 per cent. Both Cantrell's and my results give approximately one per cent. Therefore one per cent. of all cases of skin diseases are cases of herpes zoster. Besides, it is interesting to add that during these 10 years the number of cases of venereal disease have increased 28 times, while the cases of skin disease have only grown 5 times as frequent as formerly.

(B-1) *Sex.*—Cantrell says that, of his 193 cases, 108 occurred in men, but 85 being in women. From this it would seem that males are more often affected than females. In reality, however, this is not the case, for a dispensary for skin and venereal diseases is visited much less by women than by men. The inequality in the attendance of the sexes, therefore, will not permit a correct percentage division. Thus, of 15,603 patients with skin disease who visited my dispensary, but 3,273 were women. Of the 163 patients with herpes zoster only 39 were women. While the percentage for men was 1.01 per cent., for women it was 1.19 per cent. It must, then, be admitted that the slight difference in the percentage would probably disappear if we had had as many women as men among our patients. It should, therefore, be stated that herpes zoster is noted as frequently among men as statistics show it to occur in general, not considering the sex. Besides, it occurs in women about as frequently as in men.

(B-2) *Age.*—Cantrell divides his cases into separate decades, dividing the first decade again into halves. Over half of his cases (55 in the second, 39 in the third decade) occurred between 10 and 30 years of age; 24 in the fourth; 22 in the sixth; 17 between 5 and 10 years; 15 in the fifth decade;

*From Dr. Max Joseph's Dispensary for Skin and Venereal Diseases, Berlin.

6 under 5 years, and 3 in the eighth decade. Sixty cases of mine occurred in the third decade; 48 in the second; 23 in the fourth; 11 in the fifth; 10 in the sixth; 5 in the first, and 3 in the seventh decade. No cases were noted in patients over 70 years of age. Grouped physiologically, 2 of my cases occurred before going to school (under 6 years); 15 occurred while attending school (6 to 14 years); two-thirds of the cases during puberty and adolescence (15 to 30 years); 23 at maturity (30 to 40 years); 21 at the prime of life (40 to 60 years), and 3 in old age. The great difference in the prevalence of herpes zoster is, according to my observation, to be noted between the first and second halves of the second decade, before and after puberty. Out of 48 cases occurring in the second decade, 12 were noted before puberty and 36 afterward. According to Cantrell the second decade contained most cases of herpes zoster, though, unfortunately, he did not divide them into those occurring before and after puberty. My results in this respect are striking. Perhaps Cantrell would have come to the same conclusions. As two-thirds of the cases were observed between the ages of 15 and 30 years, we are certainly justified in calling herpes zoster a disease of youth. Below this age its frequency gradually increases; afterward it decreases. Expressed in percentages, 1 per cent. occurred before school, 9 per cent. during school, 59 per cent. during puberty and adolescence, 14 per cent. at maturity, 12 per cent. at the prime of life, and 2 per cent. at old age.

(B-3) *Locality*.—Cantrell divided his cases into pectoral, 92; abdominal, 27; femoral, 24; brachial, 21; trigeminal, 16, and nuchal, 6. In my cases the distribution was as follows: Pectoral, 50; trigeminal, 49 (26 facial, 21 frontal and 2 ophthalmic); abdominal, 12; nuchal, 11; femoral, 11; brachial, 5, and crural, one. In the other cases the region of the body affected was not mentioned. Of all the other articles upon this subject but one, by Greenough (*Boston Medical and Surgical Journal*, Vol. 121), comprises sufficient material for answering the questions discussed by Cantrell and myself. And our results, so far as concerns the locality of the eruption, differ exceedingly. Greenough notes the localization as cervical, occipital, aural and facial. In contradistinction of this, herpes zoster affecting the 24 dorsal nerves is called pectoral. It is rarely necessary to denote exactly the peripheral situation of each group. Regarding the relation of the eruption to anatomical changes in the nervous system, whether the disease process occurs in the spinal ganglia or more centrally, it is important to know the relationship between the eruption and the different parts of the central nervous system. Therefore we have divided cases into those affecting the 24 dorsal nerves, the 16 cervical, the 10 lumbar, the 10 sacral and the 6 trigeminal branches (according to the division in the Gasserian ganglion). Using this division, Cantrell's cases were as follows: 92 dorsal, 27 cervical (21 brachial and 6 nuchal), 27 lumbar (all abdominal), 24 sacral (all femoral), 16 trigeminal (2 maxillary, 3 ophthalmic, 7 frontal and 4 facial). The number of cases, according to the above arrangement, gives a series which corresponds well with the number of nerves supplying these localities.

My material, in the region supplied by the dorsal nerves, gives 50 cases (all posterior); by the cervical, 16 (11 nuchal and 5 brachial); by the lumbar, 13 (12 abdominal and one crural); by the sacral, 11 (all femoral), and by the trigeminal, 49 (26 facial, 21 frontal and 2 ophthalmic). Here, too, the nerves and the distribution of the eruption correspond in all regions except that supplied by the trigeminal. While the relation between the nerves and the eruption in the separate regions, as shown by Cantrell throughout, and by me, with the exception of the trigeminal, seems to have an anatomical basis, the large number of cases of trigeminal herpes zoster found among my patients is striking. Greenough's work shows the same relation. Herpes zoster affecting the dorsal nerves occupies first place, that affecting the cervical nerves (cervical region, occiput and ear) the second place, the last place being held by herpes zoster of the sacral nerves (lower extremities). Contrary to Cantrell's observations, but in accordance with my results, trigeminal herpes zoster is placed by Greenough in the third place, while I place it second. Regarding the distribution, as it affects one side of the body, Weiss (*Archiv für Dermatologie und Syphilographie*, Vol. 22) states that 7 out of 8 cases of intercostal herpes zoster were found on the right side. Hartzell noted 4 bilateral cases among 12 patients; Greenough had but one bilateral case out of 165, while neither Cantrell nor I have had one bilateral case among all our patients, nor was either one of us able to note any striking difference in the disease as it affected either side of the body.

(B-4) *Occupation*.—Among Cantrell's cases the men had 22, the women 12 different occupations. The greatest number of men, 17, came under the group of laborers, the other headings having 5 or less; of the women, 19 were cooks, 17 servant girls, the other headings having 7 or less. My statistics show 40 different occupations for men and 10 for women. The greatest number of men, 16, were carpenters, 13 were laborers, 12 salesmen and 11 locksmiths. Of the women, 9 were housewives, 18 laborers, 6 school-children and 6 lithographers. Cantrell found 17 out of 100 men to be laborers, while I found 21 laborers, 8 of them being women. From all of which it appears that herpes zoster does not affect people engaged in any one occupation with exceptional frequency. Nor does occupation predispose to this disease.

(B-5) *Season*.—According to Cantrell a large number of cases occurred during the months of October (22), November (23) and August (21), the other months furnishing, on an average, 13 cases. My material, 163 cases in 10 years, showed in March 1.12 per cent., in April 1.42 per cent., in October 1.14 per cent., in November 1.35 per cent., and in the other months 1 per cent. or less. Sporadic herpes zoster shows an increased prevalence in the spring and fall months.

From these investigations the following conclusions have been drawn:

1. In frequency, herpes zoster causes 1 per cent. of all skin diseases.
2. There appears to be no difference in the occurrence of herpes zoster in men and women.

3. Herpes zoster is a disease of youth (15 to 30 years), noted, according to my statistics, in two-thirds of the cases. Before school age the disease is very rare; during school it becomes more frequent; after 30 years its frequency diminishes, and at old age it is rare.

4. So far as regards the region of the body affected, herpes zoster is, in general, more frequent, the more nerves supply the region. There is one exception to this rule, both from my observations and those of Greenough, namely, an exceptionally large number of cases in the trigeminal region. This may, perhaps, be due to the fact that the region supplied by the trigeminus is more open to injury and disease than any other region.

5. Both sides of the body are apparently affected with equal frequency, bilateral herpes zoster being the rule.

6. Zimmerleni says that herpes zoster occurs among physicians and nurses in epidemic form; no other occupation seems to predispose to the condition. The final settlement of this point can only be made by consulting industrial and hygienic statistics.

7. Epidemics of herpes zoster occur in the spring and fall. Sporadic cases occur with almost equal regularity throughout the entire year, though some increase is noted in the spring and autumn months.

CASE EXHIBITING THE SYMPTOMS OF BOTH TABES AND MULTIPLE SCLEROSIS.*

By WHARTON SINKLER, M. D.,
of Philadelphia.

While it is true that the location of the sclerotic areas in multiple sclerosis may give rise to a great diversity in the symptoms of that disease, I have never seen or heard of a case of multiple sclerosis in which were present marked symptoms of locomotor ataxia. Mills showed a case at the Philadelphia Neurological Society (*Journal of Nervous and Mental Disease*, Vol. XXVIII, p. 162, 1901), in which there were undoubted evidences that the patient was suffering from tabes, and there was no present very distinct intention tremor of the lower extremities. This tremor, however, was not a typical intention tremor, and in presenting the case Dr. Mills raised the question as to whether the tremor was the result of senility—the patient being seventy-four years of age—or whether it was due to disseminated sclerosis. I have had under observation several years a patient who presents symptoms of both locomotor ataxia and multiple sclerosis. The case is not absolutely typical of either disease, but it shows in a striking way the most characteristic and salient features of both diseases. The patient has violent lightning pain, absence of knee jerks, inability to stand with the eyes closed, loss of bladder control and loss of sexual power. There is, however, comparatively little inco-ordination of the hands, and but little in the feet, and there is no Lull-Robertson phenomenon. In addition he has, to a marked degree, exaggerated and typical intention tremor of the upper extremities and some increase of the legs when standing; but there is no

nystagmus and the speech is not staccato or scanning.

The case is as follows:

A. B., aged sixty-two. He was first seen by me in October, 1895, and the symptoms which he presented at that time were much the same as they are now. He is married and is a manufacturer of show cases. His mother died at eighty-eight years, of senility. His father died at sixty-five in a state of dementia, which had lasted for three years. He has four sisters and one brother, who are living and in good health. When a youth he had a chancre, but there were no secondary symptoms that he is aware of. He has used tobacco since he was twelve years of age, but is a total abstainer as regards liquor. He chews only cigars, but expectorates rather freely. For years he has drunk a large quantity of water, and he thinks that at times he often drinks two or three gallons of water a day. He does not drink at night, but passes large quantities of urine during the night. When he was thirty-five years of age he suffered from muscular rheumatism, the result of exposure to wet, and since that time he has had more or less rheumatic pains in the shoulders and back, but otherwise he has been in good health. For the past twenty-five or thirty years he has noticed a tendency to shaking of the hands if doing any very delicate work, but it did not interfere with his work, and there was no trouble in his handwriting until within the past four years, when the shaking became more pronounced on making any voluntary effort, and his handwriting became so bad, that he seldom attempted even to sign his name. About the same time he found difficulty in doing fine work, but has not been obliged to give up his work altogether, and he has been able to carry on his business almost as well as he ever did. His work has consisted in fitting glass into show cases and putting them up. He has not made the cases himself for four years, but he cuts the glass into the proper shape, fits it and fastens it in with strips of metal, which are held in place by screws and putty. About eight years ago he began to have attacks of intense pain in the legs. They were lightning-like, and, as he expressed it, "while they only lasted a second or so, they made themselves felt." The pains were generally between the knee and thigh, but latterly they have been above the knee also. Sometimes the pain is in a spot which could be covered by a ten-cent piece but it is intensely severe. Latterly the attacks of pain have been more frequent and have lasted longer. For eight or ten years his legs have felt dead and numb, but he had no difficulty whatever in walking to a considerable extent. Indeed, it has been rather extraordinary as to the amount of walking he does. It is his habit now, as it always has been, to walk from one part of the city to another to attend to his business. Eight to ten miles is his usual distance, and sometimes he covers as much as twenty miles. He never experiences any sense of fatigue. Eight years ago, while lying in bed one night, he suddenly found that his bladder had emptied itself without any sensation or knowledge on his part. It was only by finding that the bed was wet, that he was aware of the discharge of urine. Since that time almost every night there has been an involuntary emptying of the bladder, so that he has been compelled to wear a rubber urinal. During the day there is preservation of bladder control, and there is no leakage of urine, but when the desire to urinate comes on, he is obliged to relieve himself at once or there may be incontinence. For six or seven years there has been entire loss of sexual power. There has never been any trouble with the bowels. There has been no loss of sensation in the rectum, but if there is a tendency to diarrhea, he cannot long control the sphincter.

S. P. He is a thin, tall man, looking old for his age. His hair is white and his skin pallid. His walk is rather unsteady when he first gets up from sitting, but the gait is not characteristic of locomotor ataxia, and walking along the street he is fairly steady. The station is bad. There is some swaying when he stands with his feet together, and when the eyes are closed the swaying is so great that he would fall if not supported. If the feet are several inches apart, his station is good, but there is considerable shaking of the body from tremor of the legs which is present. If his feet are apart when the eyes are closed, there is considerable swaying, but he can stand almost indefinitely. The knee jerks are absent and they cannot be elicited by reinforcement. The plantar reflex is present, but in the left foot it is easily exhausted. On stroking the sole of the

left foot, the ankle is flexed, and the great toe is extended, but the other toes do not move; on stroking the right sole, there is active flexion of the foot but no movement of the toes. The Achilles jerk is absent, as are the elbow jerks. There is no head tremor. When the arms are at rest there is no tremor, but on attempting any voluntary movement with either hand an excessive tremor is developed. It is impossible for the patient to carry a glass of water to the mouth with the right hand, as the attempt causes wild and extreme tremor, but if he uses the left hand, he can manage to drink from a tumbler without spilling it. Attempting to touch the end of the nose with the forefinger of either hand, causes violent tremor, and it is impossible for the finger to rest there. The effort to button the clothing or to pick up an object develops characteristic shaking. He

is unable to write. An attempt to write his name shows extreme tremor in the stroke of the pencil, and the signature is quite illegible. In spite of the intention tremor he has acquired a knack of using tools which are necessary in his business. For example he can put in quite a small screw with a screw-driver, and he can drive a tack. He can also put a key in a key-hole. He manages to do this by steadying his hand against the door and then quickly inserting the key. His speech is slow but is not scanning. There is no loss of sense of posture in the limbs. With his eyes closed he can with fair accuracy locate the position of the feet and legs. Dr. A. G. Thomson kindly made a careful examination of the eyes and sent me the following report. "The pupils act normally in light and accommodations. The discs and fundi are practically normal, and there is no want of muscular balance, nor is there any history of former paresis of the muscles. The form and color fields are good. The vision is only 6/30, but this is due to 2D. of hyperopia in each eye." Examination of the urine showed absence of sugar and merely a trace of albumin, which is probably due to the large amount of pus and mucus which is present. Under the microscope phosphates were found, but no casts.

THE VALUE OF DIPHTHERIA ANTITOXIN.*

By M. HOWARD FUSSELL, M. D.,
of Philadelphia.

"In ten years all your antitoxin syringes will be in the ash-barrel, and you will be ashamed that you ever were guilty of using antitoxin for diphtheria."

The above expression was used but a few months ago by a gentleman enjoying a large private practice and holding a responsible position as chief of a hospital ward in this city.

So long as reputable physicians either from prejudice or other mental aberration hold such views as the above, an article is not out of place on what at first seems a subject well thrashed out, and upon which two opinions could not be held. That some men still are unbelievers in the efficacy of diphtheria antitoxin seems to the writer explicable largely upon two possibilities:

First: The statistics of certain cities, notably Philadelphia, where reporting of contagious diseases is obligatory, and where homes are placarded, make the mortality from diphtheria at from 25

to 30 per cent., a figure very little, if any, less than that which was the fact before antitoxin was used and before houses were placarded.

This can be explained, I am sure, by the fact that very many men, certainly men in my own district do not report cases of contagious disease in order to prevent the house from being placarded, unless the case is a desperate one and death seems probable. All mild cases and the majority of moderately severe ones are never reported to the Board of Health, and consequently cannot figure in the statistics.

Second: It is a lamentable fact that many physicians, holding perhaps but slightly modified views from the one quoted, either do not use antitoxin at all, or they use it in small doses and late in the course of the disease.

When the gentleman quoted was asked if he never used antitoxin, he answered, "Oh, yes, but only to satisfy the family!"

It is unnecessary to say that such use is a little worse than useless.

These two facts alone, it would seem to the writer, must explain in a large degree the statistics of cities which give a high death-rate in diphtheria, and are a good explanation why certain reputable men are still unbelievers in the efficacy of diphtheria antitoxin.

This paper is based on personal experience and will not deal with statistics. Suffice it that in the district in which the writer works there is always more or less diphtheria, and there has been since he began practice eighteen years ago.

The type of the disease in the past eighteen years has been the same, many mild or moderately severe cases, and occasionally very severe or malignant cases. Frequently laryngitis has been the first symptom of the disease. There has been no change in the type, I repeat, since the use of antitoxin.

The writer's experience before the advent of antitoxin was about as that of other practitioners. If he had no specific, he was forced to rely upon keeping the affected region as clean and as nearly aseptic as possible, upon the use of tincture of chloride of iron, upon the use of tonics for the heart, stimulants and nourishment. If, happily, the child was robust and the dose of poison received into the system not overwhelming, the child recovered. If, on the other hand, the dose of the poison was great or the assistance feeble, death ensued.

If laryngitis was the first symptom or a complication, death almost invariably ensued. Tracheotomy in croup cases, whether performed by myself or by expert surgeons, was invariably followed by death in my private work.

Intubation occasionally, but very seldom, was followed by recovery.

I felt at the time and still think that I occasionally saved life by the timely use of local applications, the use of food and stimulants, or by surgical interference. I always felt, however, the greatest trepidation in dealing with diphtheria, and knew that my patient was in the hands of a merciless enemy.

The uncertainty of treatment ten years ago was well illustrated by two typical cases:

*Read before the Philadelphia County Medical Society, September 10, 1902.

CASE 1.—Marion H., developed gradually a hoarseness. I saw her on the second day. There was a very slight rise in temperature, there was total loss of voice, over both tonsils there were small patches of tightly adherent membrane. There was no difficult breathing. The case was recognized as one of diphtheritic croup and treated with atomized saline, local applications to the tonsils and pharynx, and tonics. Gradually the voice became whispering, stenosis of the pharynx ensued and gradually increased. Before the child was in extremis, Dr. Wharton skilfully performed tracheotomy, with relief for a few hours, then the bronchi became affected, and the girl of ten years died miserably, of asphyxiation.

Here was a case seen early, treated in the best-known manner, a surgeon called in early, and yet the disease steadily pursued its relentless course until death ensued. This was my usual experience in such cases.

CASE 2.—O. M., boy of six. One of moderate pharyngeal diphtheria, treated with iron, local applications and tonics. The membrane all disappeared, but a gradually increasing nephritis occurred, which ended in death from that complication.

Of course, there were severe cases which recovered, but the occurrence of such cases as the above made me feel that the doctor had absolutely no specific and that death or recovery depended largely upon the dose of poison and the amount of resistance manifested by the patient.

Now all this is changed.

Since I have been using antitoxin I have had *one* death in which the specific was used, and that death occurred eight hours after my first visit (the child had been ill two days) and seven hours after the administration of the antitoxin.

I now feel, when called to a case of diphtheria, that the patient will *surely* recover, provided I have given it early in the course, and will *probably* recover, even though the case is severe and seen rather late. Every patient suffering from laryngitis I have seen has recovered. On two or three occasions I have been forced to resort to intubation, but never to tracheotomy.

The mild cases all recover with the administration of 1,000 or, preferably, 2,000 units of a reputable make of antitoxin.

That no mistake, in my judgment, as to the nature of the cases has occurred, is proven by the fact that I invariably make cultures in every throat case, so that I have not given antitoxin the credit of curing cases of follicular tonsillitis, which would have recovered without its use.

The cases which were treated with antitoxin and were recorded as diphtheria were all true diphtheria, as proven by the presence of Klebs-Löffler bacilli in the throat.

The following cases are illustrative of what occurs in the constant early use of antitoxin and are the grounds for my belief in the remedy:

CASE 1.—Milton F., my son, aged eight years, was not feeling very well for two or three days. A careful examination of his throat and other organs failed to show anything upon which a diagnosis could be made. On the morning of November 26, 1901, his mother sent him to the office to have his throat examined, as he said it was sore. There was no fever, and, apart from a slight pharyngeal redness, his throat was normal. Suddenly, at three A. M., the next day, I was awakened by the child giving a severe, loud, laryngeal cough. I spoke to him and his voice was perfectly clear. I then looked at the throat, and, much to my horror, found both tonsils covered with a thick membranous exudate. By four A. M. the child could not speak

above a whisper and the visible exudate had decidedly increased. At four-thirty A. M. he received 4000 units of antitoxin at one dose. He received some strychnine as a tonic and a mixture of tr. ferri chlor. and bichloride, internally. He was isolated. A culture showed a pure growth of Klebs-Löffler bacilli. He made a perfect recovery.

So far as we may speak of what is not absolutely proven, this patient would have died miserably within 24 hours. Many such cases have come under my observation, in which death was the immediate result before the use of diphtheria antitoxin. The case shows also the value of *early* administration of relatively large doses.

The following case, seen in consultation, demonstrates two facts: The error in giving one dose of antitoxin and not repeating it one or more times if improvement does not follow, and the value of antitoxin late in the course of a case.

CASE 2.—Child, female, aged three years, seen with Dr. Rowe, of Falls of Schuylkill. Five days before I was called the child had been attacked with pharyngeal diphtheria, was given 1000 units of antitoxin and improved so that some of the membrane disappeared from the throat. I saw her late in the evening of the sixth or seventh day, almost in extremis from laryngeal stenosis. There was considerable exudate in the throat, there was apparently some consolidation at the right apex of the lung, indicating that at least collapse had taken place if not actual inflammation. The child was at once given 2000 units of antitoxin and Dr. John H. Jopson was called to do a tracheotomy. He chose an intubation, which he did most skilfully. The child was immediately relieved of the symptoms of stenosis, but the breathing still remained rapid and there was continued retraction of the epigastrium. The next morning 2000 units more of antitoxin were administered. From that time the child gradually improved and at the end of two weeks was entirely well.

I believe the child would have died if intubation had not been performed, and would have died even with that help if the administration of antitoxin had not been continued. A pure culture of diphtheria bacilli was found in the throat.

The effect upon a severe case, when the remedy is given early and in efficient doses, is shown by a case which came under my care the day I left the city on my vacation. The case was continued under the intelligent care of Dr. C. K. Dengler.

CASE 3.—John C., aged 12 years, was taken sick with sore throat August 17, 1902. I first saw him in the evening of August 19. He had a temperature of 103°. The entire pharynx was coated with a thick dirty membrane. The glands at the angle of the jaw were much involved and greatly swollen. The voice was clear. He was immediately given 2000 units of antitoxin at 11 P. M. The next morning, at 10 o'clock, as the symptoms were about the same, he was again given 2000 units. In the evening he was better but the voice was husky. By 10 P. M. he had severe laryngeal stenosis, was given 2000 units more antitoxin, the membrane in the pharynx was beginning to disappear. In a few hours a large piece of membrane was coughed up and the stenosis entirely disappeared. The child made an uninterrupted recovery. Two children in this home had a slight attack of diphtheria which was cut short by the immediate administration of 1000 units of antitoxin. A fourth child was given an immunizing dose of 500 units and did not develop the disease.

While I make it a rule to take a culture of all throat cases, I do not wait for the result of the culture before administering antitoxin in doubtful cases. I have frequently given a dose of antitoxin when the culture showed afterward that diphtheria was not present. There were absolutely no unpleasant effects.

CASE 4.—George F. was taken ill, with temperature of 104°, sore throat and general malaise, while his brother was ill in the house with true diphtheria. Antitoxin, 2000 units, was immediately administered without any effect good or bad upon the case. Repeated cultures showed the absence of diphtheria bacilli.

Basing my practice upon personal experience and being taught by the experience of others, I believe it is a good thing to administer an immunizing dose to the children of a family in which a case of diphtheria exists.

I have for some time felt that we had at hand such a certain specific in antitoxin that we could safely await the development of the disease before administering the antitoxin.

Jump's experience, however, of a fatal case developing in a child watched but not given an immunizing dose, shows the danger of such a course, and now I always administer 500 units to the unaffected children of the family.

I believe that the following statements will be found a safe rule to follow and will hold good in the majority of cases. If these rules are followed, I believe that the mortality of diphtheria would be about *nil*, instead of 30 per cent. or thereabouts, as it is apparently in Philadelphia at the present time.

Rule 1: Always make a culture in throat cases; diphtheria cannot be certainly diagnosed without it.

2. When called to see a case of sore throat which is doubtful in character, give antitoxin *at once* and make the diagnosis by culture afterward.

3. When a case of undoubted diphtheria is seen, administer 2,000 units *at once*. If there is no improvement in six hours, administer 2,000 units again. Every 12 hours thereafter administer 2,000 units until improvement begins.

4. Always give a large dose; 2,000 to 4,000 units in my hands has proven sufficient, but in desperate cases much larger doses may be used, as proven by the Boston experience.

I believe that, given a case of diphtheria in an early stage, it is only a matter of administration of *enough* antitoxin to effect its cure.

If one *waits*, even in apparently mild cases, fatal pathological changes may occur in the organs which will make death or invalidism certain, even though antitoxin be administered later.

A CASE OF CRETINISM SHOWING THE RESULTS OF ONE YEAR'S TREATMENT.*

By ALEXANDER HERON DAVISSON, M. D.,
of Philadelphia.

This patient was shown before the Society on May 14, 1901. At that time she had been under treatment for one month and had already commenced to exhibit the effects of the administration of thyroid extract.

The photographs which I showed, and which I now show you again, were taken before she was put upon treatment.

Her age was then two years and one month.

The family history is as follows:

Father, age 33, born in Russia; enjoys good health. He does not remember any diseases of childhood that he had and denies any venereal infection. The paternal grand-

father was born in Russia, is 69 years old and in good health. The paternal grandmother was born in Russia, is 65 years old and in good health. The mother of the patient was born in Russia, is 26 years old and enjoys good health. When eleven years old she fell into a well; was drawn out quickly, but was badly frightened. The maternal grandfather died at 50, of something like consumption and had a cough for three years. The maternal grandmother died at 40, cause unknown. The parents have three children. No miscarriages. They have had another child since the birth of this patient. It is in good health. The first child died at three months of "summer complaint (?)" The second child is four years old, bright, intelligent and healthy. The patient was born at full term, after a normal labor. The mother considers the child to have been perfectly well for three months. When about four months old it suffered from a "cold," swallowing was difficult and she could not nurse on account of the difficulty in breathing through her nose. The child apparently recovered from this "cold" in a few days, but a few days later the mother noticed that she was yellow, that she had become very fretful, crying whenever she was moved. Her tongue then seemed to become thick. Her bowels were constipated. She was breast-fed until almost two years old. When first seen by me on April 8, 1901, she was two years and one month old. Her expression was dull and heavy. Her hair was coarse, straight and brittle. Her skin was dry and rough, the secretion diminished. The color of the skin was a peculiar yellow, a brass color. The subcutaneous tissue seemed thickened, almost an hypertrophy. The voice was rough



FIG. 1. A Case of Cretinism.

and stridulous. The mouth was kept open and filled by a large thick tongue. There were but two teeth, the two lower central incisors, poorly developed and cut at 22 months. The anterior fontanelle was widely open. The abdomen was pendulous. There was an umbilical hernia. The long bones were bowed. Harrison's groove was present. There was beading of the ribs. The epiphyses were

*Paper read, and case shown, before the Philadelphia Pediatric Society, May 13, 1902.

enlarged. The thyroid gland could not be felt. There were fatty growths above the clavicles. The child could not walk. It was fed on a mixture of milk and water, equal parts. The bowels were constipated. Its weight was $17\frac{1}{2}$ pounds. Its height was 26 inches. Temperature in rectum $98\frac{2}{5}^{\circ}$. Pulse 96. The fronto-occipital diameter of the head was 10 inches. The circumference was 18 inches. From ear to ear across top of head measured 9 inches. From root of nose to occipital protuberance 11 inches. The chest measured $18\frac{1}{2}$ inches at the xiphoid cartilage; at half way between xiphoid and umbilicus it measured 19 inches; at the umbilicus it measured 17 inches.

I might add that examination by me was resented by the patient; her intelligence was sufficient to appreciate, in what I did, the interference of a stranger. Treatment with thyroid extract was begun; one-quarter of a grain being given three times a day. On April 13, 1901, thyroid extract was increased to $\frac{1}{2}$ grain three times a day. Upon the following day I was called to see the patient and found her suffering with a diarrhea and fever. This illness lasted three days, and during it her pulse reached 144, respiration 38, and temperature $104\frac{3}{5}^{\circ}$ (rectum). The temperature then fell to $97\frac{3}{5}^{\circ}$ (rectum). I mention this illness because, while it may have been a coincidence, due to some intestinal disturbance, it nevertheless occurred soon after the commencement of the administration of thyroid extract, which does, sometimes, cause functional disturbance when first given. She was soon able, however, to resume milk feeding, the thyroid extract which had been withheld, was again administered, and in addition she was givenunctions of cod-liver oil with soap liniment. By June 2, 1901, the two lower lateral incisors and left lower canine had appeared. Thyroid extract was being administered in doses of one and one-third grains three times a day. Not to burden you with details of what is interesting in this child's life-history for the past year, I will say that on June 14, 1901, she had a typical attack of measles, which for ten days was of a severe nature and during which time the rectal temperature reached 104° . There was involvement of the smaller bronchial tubes, there was present a coalescent rash of a purplish color, lasting one week; inflammation of the laryngeal mucous membrane of so severe a nature as to give at first a laryngeal character to the cough; and later a croupy dyspnea, causing inspiration and expiration to be so harsh and stridulous that I feared a fatal termination from that severe form of obstructive laryngitis that often supervenes upon measles, and which in some cases may be due to Klebs-Löffler or streptococcal infection. At the time the child contracted measles she was taking $1\frac{1}{3}$ grains of thyroid extract t. d. During this illness the administration of thyroid was suspended, but on June 21 it was begun again in $\frac{1}{2}$ -grain doses three times daily. The cough during the attack of measles was so severe that a complete prolapse of the bowel resulted. This prolapse was very large and persistent. The bowel would come down for about five inches to a cone shape, the intestinal aperture forming the apex and the base made up of intestine that had been forced through a much stretched sphincter ani, that received but little support from a pelvic floor that shared in the general debilitated condition of the child. On account of the cough that was still present, this prolapse was hard to reduce and when reduced did not remain so long. Treatment in various ways, medicinal and mechanical, was resorted to, but unsuccessfully. An application of nitric acid by me was a failure. On July 30, 1901, the condition of prolapse was so bad and the care of it so exhausting to the mother, that the child was removed to the Children's Hospital. A second application of nitric acid failed to give the desired relief. The child was in the hospital during July, August and September, and although it received the best of care and treatment, it failed progressively, owing, there is no doubt, to the enforced housing during an exceptionally warm and trying summer. On September 29, 1901, it left the hospital, and at the time had the prolapse together with an infective diarrhea of the lower bowel. Its condition was so bad that I resolved to give it nothing but good food and fresh air in the surroundings of its family, and to attempt by mechanical means (strapping

the thighs together) to keep the prolapse in place after having once reduced it, in the hope thus a cure would ultimately be effected when the child's general health was better. At this time it was also taking thyroid extract in doses of one grain twice a day. By November 1, 1901, the improvement in the child's general condition was so great that the bowel remained in place and has not since come down once. On December 2, 1901, the child was put on an egg emulsion of cod-liver oil and has been taking this continually throughout the winter. On February 4 she was successfully vaccinated after a previously unsuccessful attempt. The patient is now three years and almost two months old. She weighs 25 pounds and is $29\frac{1}{4}$ inches in height. She still presents undoubted signs of rickets in the pendulous abdomen, unclosed fontanelle, beading of ribs, enlargement of epiphyses, curving of long bones; but the abdomen is not so pendulous as it was a year ago, nor is the umbilical hernia as marked. The fronto-occipital diameter of the head is 11 inches. The circumference is $19\frac{1}{2}$ inches. From ear to ear across top of head measures 11 inches. From root of nose to occipital protuberance



FIG. II. The Same Patient After Treatment.

measures 12 inches. The chest measures 19 inches at xiphoid cartilage; midway between xiphoid and umbilicus it measures 20 inches; at the umbilicus it measures 20 inches. The child does not talk and only walks with the aid of chairs. The marks of cretinism are all much less apparent than they were a year ago. Its expression is bright and cheerful. Its hair has grown, is soft and curls. Its skin, while not dry and rough, is yet of a brownish color. The voice is much softer, the mouth is not kept open by a thick tongue, as that organ is much smaller. There are no fatty deposits above the clavicles. In one year it has gained $7\frac{1}{2}$ pounds, and has grown $3\frac{1}{4}$ inches in height. The circumference of the head is one inch greater; the chest measurements show an increase of one inch. It has cut the remaining 18 teeth. Twelve grains of thyroid extract are now being taken daily. The parents have been very faithful in

the administration of the remedy, consequently there has been no chance to note any relapse to the former condition of marked cretinism. I have felt that it is my duty to advise the continuous administration of thyroid extract.

Whether further improvement would follow an increase of the dose, or whether a continuous exhibition of an amount that is producing good results is all that is necessary, are questions that observation must decide in these cases of cretinism.

ANESTHETICS.

By HERBERT O. COLLINS, M. D.,
of Dayton, O.

If there is any subject with which the profession has played battle-door and shuttle-cock, it is that which relates to the choice of anesthetics, with reference to the safety of the patient and the comfort and confidence of both anesthetist and operator. Both chloroform and ether have at different times enjoyed the greater favor, and each in its turn has been partially discarded for the other, as a result of a series of accidents or the publication of an especially convincing array of statistics by some ardent advocate of the rival method. Even to-day, after experience in thousands of cases and careful tabulation of the results by individuals and commissions, surgeons the world over do not agree upon the safer choice, but each seems to be guided largely by his own chance experience or personal prejudice.

But one conclusion can be drawn from this state of affairs, viz., that no fixed choice can be made, but rather that in the hands of an efficient anesthetist either chloroform or ether may be administered with a remarkable degree of safety. In fact, it is questionable if any attempt should be made to adopt the one as the routine choice in preference to the other, for each has a distinct field of its own, and the judgment of him who is responsible for its administration should be left free to select that which best suits the individual case before him. It has been aptly stated that the choice of the anesthetist is more important than the choice of the anesthetic, and the sooner we realize this and act upon it, the better for both operator and patient.

He who is to become responsible for the proper administration of an anesthetic should be a man of rare attainments. He should combine courage with caution. Courage to enable him to accept the responsibility of his position, to hold his patient steadily under the influence of the anesthetic in face, if need be, of adverse indications. And yet he should keep himself constantly on the alert and avoid the recklessness which is sure to lead to unpleasant, if not fatal, results. At the same time he should be thoroughly familiar with his anesthetic and have an intimate knowledge of his patient and the operation to be performed. The time when any bystander, or even undergraduate or nurse, was called upon to administer the anesthetic is happily passing away, and this branch of surgical work is finally taking the important position which it deserves.

In selecting the anesthetic best suited to a given case, three things are to be taken into consideration: First, the condition of the patient; second, the nature of the operation to be performed; and

third, the surroundings under which it is to be given. From a theoretical standpoint, at least, the various mixtures in common use are to be deprecated, owing to the uncertainty as to the exact proportions in which the separate ingredients are being absorbed, and therefore the lack of definite knowledge as to what the patient is getting. The differing specific gravities and evaporation-points and, consequently, the different rapidity with which the ingredients of mixtures enter the circulation render their administration uncertain and unscientific and are likely to cause unexpected results during their inhalation. For this reason pure ether or chloroform seem destined to retain the confidence of the most experienced anesthetists, in spite of the claims which from time to time are made for mixtures of various kinds.

In considering the comparative safety of ether and chloroform, statistics are of value only when taken in connection with knowledge from other sources. All recent statistics point very decidedly to ether as the safer anesthetic. Those of Foy, based upon 877,507 administrations of chloroform, show a mortality of 1 in 4301 inhalations, while the statistics of Julliard, based upon 314,738 administrations of ether, indicate a mortality of only 1 in 14,987.* Other figures, quoted by various observers, give results nearly the same, the average being about one death in two thousand for chloroform and one in ten thousand for ether. Upon the face of these figures, ether is about five times as safe a general anesthetic as chloroform. But this is admittedly not true, as there are other factors which must be considered, and which make the comparison more equal. It is well known that chloroform kills its victims suddenly, while there are aftereffects of ether, especially upon the lungs and kidneys, which cause death not included in statistics, thus increasing the mortality. But, as compared to the total number of etherizations, these cases are relatively few and do not compensate for the great difference in the death-rate of the two anesthetics. Ether, then, judging from the data now before us, must be conceded to be the safer anesthetic. Each year sees it grow in popularity, even in Europe, where chloroform long held the first place. During the year 1897, ether was given in the London hospitals 2910 times, nitrous oxide 1362, chloroform 677 and A. C. E. 510.**

The greater safety of ether, as compared with chloroform, is partly due to the manner in which each causes the death of the patient. Deaths from chloroform come quickly, without any previous warning, and the patient is almost immediately beyond the possibility of relief. Patients who die from chloroform are frequently strong and robust, without a single unhealthy organ to put the anesthetist on his guard. The deaths from ether, on the other hand, occur slowly and are first heralded by warning signs which need not be overlooked, and resuscitation is possible long after the danger-signals have been given. However, surgeons have published reports of 10,000 administrations of chloroform without an accident.

*Sajous's Annual.

**New York Medical Record, Vol. LIII, page 503.

In a series of very careful experiments which were performed in 1898 by W. H. Thompson and Robert Coleman for the purpose of determining the effect of different anesthetics upon the blood-pressure and kidneys, it was found, by comparing the carotid and kidney tracings, that ether stimulates the heart throughout and at the same time causes a contraction of the arterioles.*** The effect of this is to cause a marked increase in the general bloodpressure and at the same time damaging effect upon the renal secretory cells, which in the experiments caused a decrease in the bulk of the kidneys, a marked albuminuria, diminished secretion and, finally, a complete suppression. These effects upon the kidneys did not seem to depend entirely upon the influence on the general circulation, but were specific as regards the kidneys, as shown by comparison of the tracings.

The results of these and other experiments unquestionably bear out the common experience in regard to the effect of ether upon the kidneys and justify the choice of some other anesthetic whenever it is known that these organs are diseased. The danger from chloroform is also greater with kidney lesions, probably because of an increase of the arterial tension found in these cases, with the consequent extra strain which is thrown upon the heart.

The influence exerted by respiratory conditions varies with the nature of the lesion. The irritative action of ether upon the bronchial mucous membrane adds to the danger whenever the lungs or bronchi are in a condition of acute or chronic inflammation. But, whenever possible, chloroform should be avoided when the condition is an obstructive one which may interfere with free respiration or cause an extra strain upon the heart. This is particularly true of such lesions as emphysema, growths of any kind, accumulations of pus or pleuritic effusions.

The same discrimination is necessary in regard to the heart. For, while it is true in a general way that ether is safer in lesions of the circulatory system, there are conditions under which chloroform is at least admissible, if not preferable. The key to the influence of cardiac lesions in regard to their effect upon the choice of anesthetics may be indicated by the statement that all obstructive conditions, and those involving a weakening of the muscular power, must be considered as especially risky with chloroform. This applies especially to fatty degeneration and dilated right heart or to cases in which some cardiac depressing drug has been previously administered in large doses, and in conditions of surgical shock, acute alcoholism and epilepsy. In aortic disease and when there is a tendency to syncope, ether may be a direct benefit to the patient, owing to its stimulating action. In those valvular lesions which are not obstructive, or in which compensation is adequate, chloroform is not especially contra-indicated.

The condition known as *habitus lymphaticus*, and which is characterized by an hypertrophy of the lymphatic tissue throughout the body, including a persistent thymus gland and enlarged lymphoid structures at the base of the tongue, hypertrophied

tonsils and adenoids, is frequently accompanied by dilated heart and contracted aorta. In this condition the mortality from chloroform is especially high**** and, if possible, ether or nitrous oxide should be substituted for it in all operations for hypertrophied tonsils or adenoids. Eighteen deaths from chloroform, in operations upon adenoids, were reported during the five years succeeding 1892. As the operation is a short one and usually devoid of especial danger, except from the anesthetic, this mortality is out of all proportion to that which is found in other conditions. The fact that it frequently becomes necessary to raise the patient suddenly to a sitting or half-reclining posture during these operations upon the throat, in order to prevent the blood from running into the larynx, only serves to emphasize the danger of administering chloroform.

In operations upon the brain, chloroform is deservedly popular, as it has a tendency to lessen the hemorrhage by causing an anemia of the brain. This is directly opposite to the results of ether, which produces an engorgement of the cerebral vessels and thus obscures the field of operation by the consequent oozing. Chloroform is to be preferred in laparotomies, not only because of the greater quiet of the patient, but also because ether pneumonias are especially liable to follow anesthesia in this class of surgery.

The greater safety of chloroform in obstetrics has been explained by the theory that deaths from chloroform are due to vasomotor paralysis, and as pregnancy increases the vasomotor tension, pregnant women are therefore less liable to its injurious effects. Probably the fact that, as it is usually administered during labor, the anesthesia is not prolonged, and a comparatively small amount of the anesthetic is used, deserves at least an equal share in the responsibility for the good results.

To summarize, ether must be considered preferable to chloroform, especially in such conditions as surgical shock, epilepsy, a tendency to syncope, fatty or dilated heart, advanced aortic or mitral disease, especially when compensation is imperfect, acute alcoholism and delirium tremens, fatty or obstructed liver, or any condition causing an obstruction of the circulation, including emphysema and all pleuritic effusions, spina bifida, hydrocephalus, and after the administration of heart-depressing drugs; adenoids and enlarged tonsils, or other evidence of lymphatic troubles, and when the anesthetist has had but a limited experience.

On the other hand, the especial field for chloroform is found in organic disease of the nervous system, brain surgery, atheroma of the arteries, with very old and very young people, acute or chronic affections of the respiratory tract, except when of such a nature as to impede the circulation or embarrass the action of the heart; in operations about the face, or when the cautery is to be used in the proximity of the air-passages; operations with artificial light, renal diseases and during labor or puerperal eclampsia. Its most useful field is in laparotomy and all those operations requiring perfect

***New York Medical Record, Vol. LIV.

****F. W. Hinkel, in Laryngoscope, 1898.

quiet of the patient or rapid work on the part of the operator.

Chloroform should be especially avoided in all cases of nerve-prostration and postinfluenzal neurasthenia, adenoids and enlarged tonsils, fatty degeneration of the heart and cardiac dilatation.

The danger of administering an anesthetic in the presence of artificial light (except the incandescent electric light) or any open flame, while especially marked in connection with ether, on account of the inflammability of its vapor, is not entirely absent with chloroform. The free chlorine, which is formed when the chloroform vapor comes in contact with a flame, will not only vitiate the atmosphere and cause increased liability to respiratory troubles on the part of the patient, but has even been known to kill the patient and, in one case, the surgeon and nurses.

Dr. L. C. Schleich, of Berlin, reasoned that the absorption of an anesthetic is controlled largely by the evaporation-point, or boiling-point, of the agent used. Thus, if the evaporation-point be considerably below the temperature of the body, anesthesia will not be satisfactory, owing to the fact that the anesthetic is eliminated by the lungs more rapidly than it can be absorbed. On the other hand, if the evaporation-point be as high as 149° F., as in the case of chloroform, the lungs will not be able to eliminate it with sufficient rapidity and other organs are called upon to get rid of the accumulation which occurs in the blood. From this he reasoned that the ideal anesthetic is one the evaporation-point of which approaches nearly the temperature of the body or is a little above it, so that it will be eliminated about as rapidly as it is absorbed. This theory led him, in 1895, to offer those mixtures

which have become known as the Schleich solutions and which he claimed were true solutions of chloroform, petroleum ether and sulphuric ether. The chief points claimed for these solutions (or mixtures) were a more rapid anesthesia, freedom from excitement and cyanosis, full, regular pulse, slight accumulation of mucus, little or no nausea either during or after operation and a more rapid awakening.

In spite of the theoretical basis upon which they were introduced, however, and the claims originally made for them, the Schleich solutions have not achieved that degree of popularity which they originally promised. Those who have had large experience with them contend that their administration is accompanied by as much excitement and nausea as ether, that they are marked cardiac and respiratory depressants and as liable to cause sudden collapse as chloroform and have as bad an effect upon the kidneys as ether. In addition, the claim is made that they are simple mixtures and not true solutions, and therefore are open to the same objections previously made to other mixtures.

The necessity of limiting the patient's diet for twenty-four hours before the administration of an anesthetic, and of giving no food whatever for six or eight hours before the operation, is too well known to be dwelt upon. Water may be given freely, but the bladder should be emptied immediately before the inhalation begins. For the same

reason a half ounce of magnesium sulphate should be given on the previous evening, followed by an enema in the morning. The urine of every patient should be analyzed, as a matter of routine, during the preceding twenty-four hours, and the anesthetist should himself examine the heart and lungs.

As fear largely increases the dangers of chloroform, the attitude of nurses and physicians, when in the presence of the patient, is of considerable importance. Every one has noticed the increased amount of the anesthetic required when the patient is excited and nervous, and every effort which calms his fears and increases his confidence should be made.

The administration of sparteine sulphate before beginning the inhalation of chloroform has given good results in the hands of a number of anesthetists when a cardiac stimulant is needed. It may be given hypodermically in doses of from 1-10 to 1-5 gr. ten or fifteen minutes before the operation begins and repeated in somewhat smaller doses during its progress. The hypodermic injection of morphine undoubtedly renders the administration of ether more quiet and is a favorite practice with many. The chief objection to its routine use lies in the fact that its effects are often continued after the anesthetic is removed and in many cases this is not to be desired. It also has the disadvantage that it contracts the pupil, thus interfering with one of the most important guides which the anesthetist has at his service. When morphine is given either before or shortly after an anesthetic, it should be borne in mind that the anesthetic increases the action of the opiate and much smaller doses than are usually given should be chosen. The hypodermic administration of atropine, either alone or combined with morphine, not only stimulates the respiratory centers, but lessens the secretions in the throat and bronchi. The administration of morphine is especially to be desired in alcoholic subjects.

The theory has been advanced that the irritation produced by chloroform upon the distribution of the trigeminus in the nose causes a reflex action upon the heart and is accountable for at least a part of the cases of heart failure. To prevent this, it is the practice of some to spray the nasal mucous membrane with a 10 per cent. solution of cocaine a few moments before the operation, repeating the application every half hour in prolonged operations.

The question of the production of post anesthesia pneumonia and other inflammations of the respiratory organs is one which should receive the careful consideration of the surgeon and anesthetist. Such aftereffects are far too common to be the result simply of the irritation of the vapor of the anesthetic or a chill which results from the exposure of the patient during the operation. The unsterilized inhaler, passed from one patient to another, or the hands or clothing of the anesthetist brought into close proximity with the patient's face under circumstances in which the vitality is reduced, are undoubtedly to blame for a certain portion of these aftereffects, and this danger should be reduced to a minimum by the anesthetist's careful preparation of both his person and his instruments before beginning the administration.

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa
See Advertising Page 8

VOL. X. NO. 18

NOVEMBER 1, 1902

\$5.00 PER ANNUM

Diseases and the Quarrels they Cause.—There is, and has been for a very long time, considerable dispute regarding the existence or non-existence of certain so-called diseases. Thus we have heard distinguished clinicians assert and deny most vehemently the independence of glandular fever, the existence of splenic anemia as a disease, or the single or multiple character of the condition or group of conditions known as pseudoleukemia. We think that a good deal of this dispute is entirely unnecessary, and is based, as are most disputations, upon a misunderstanding of terms.

There is hardly any word in the English language that lends itself more readily to misapprehension than the word "disease." As at present employed, a disease may mean any one of three things: First, its oldest significance is a group of clinical symptoms commonly occurring together, and therefore supposed to indicate the existence of some morbid process which may or may not have been discovered. It is very obvious that this may lead to the gravest errors. In the first place, different morbid processes may produce somewhat similar symptoms. The different forms of infection giving rise to cerebrospinal meningitis, for example, are very distinct, and yet the symptoms of all these different processes are essentially the same. The different morbid processes giving rise to the picture of progressive pernicious anemia may vary from tumors to animal parasites, and yet even by the most refined methods of investigation the differential diagnosis may be impossible. On the other hand, the same morbid process may give rise to very different manifestations. The protean infection of the pneumococcus, or the distinction between the typhoid psychosis and ordinary enteric fever are sufficient illustrations of this fact, not to mention the very different symptoms that are produced by carcinomata in different parts of the body. Unfortunately, many diseases still belong to this group. Such are all the functional diseases of the nervous system, many of the infections, the causes of which have not been discovered, and nearly all of the so-called constitutional or diathetic diseases.

Secondly, by a disease is meant a condition with a distinct morbid anatomy without particular reference to the cause. This group appears to be daily diminishing in number. To it belong—for example—cerebrospinal meningitis, pneumonia, ulcerative colitis, cirrhosis of the liver, appendicitis and other similar conditions. In many of these, for instance, as is invariably the case now in pneumonia and meningitis, we realize that different etiological factors may produce lesions that superficially appear similar, if not identical.

Finally we have those conditions regarding which there is practically no dispute, the etiology and morbid pathology of which are thoroughly understood. Among these may be mentioned glanders, tuberculosis, croupous pneumonia, due to the pneumococcus, epidemic cerebrospinal meningitis, diphtheria and other similar infections.

The cause of dispute usually is that one party contends for the third definition of disease, whilst the other insists on the clinical entity of a morbid process according to the first definition. Perhaps the dispute of late has waxed warmest concerning splenic anemia and pseudoleukemia. If we consider splenic anemia as a condition in which there are at the same time a profound anemia and enlargement of the spleen, there can be no question that such a disease exists. If, on the other hand, we insist that splenic anemia is merely one of the forms of progressive pernicious anemia and not essentially different from the ordinary manifestations of this disease, we take a position that cannot be controverted, but, on the other hand, that cannot be successfully established, because the etiology and morbid anatomy of progressive pernicious anemia are not sufficiently well understood.

The same is practically true of pseudoleukemia. If one party insists that pseudoleukemia is due to tuberculosis, because, in the majority of cases investigated from this point of view, the tubercle bacillus has been found in the lymphglands, and the other party insists that, as the tubercle bacillus has not been found in all of the glands, therefore there must be various forms of the disease, it is obvious that neither side can

establish their contention, and that the argument will continue with unabated vigor until some definite discoveries are made. If, however, the second party holds that those forms in which the tubercle bacillus has been found are not pseudoleukemia, they are not taking sufficiently into account disease according to its first definition. That is to say, there can be no doubt that there exists a morbid process characterized by enlargement of the lymphglands, and sometimes of the liver and spleen, and associated with anemia, a statement which includes practically all that can with certainty be postulated of Hodgkin's disease in the light of our present knowledge. It is not likely that argument on this subject will cease. Questions that cannot be solved, and that call merely for an expression of opinion on the part of the disputants, possess a perennial interest for humanity, especially for those whose opinions are regarded with respect. It is to be regretted, however, that so much valuable energy has been, and will continue to be wasted in this way.

The Importance of Chemical Physiology.—The Presidential Address of Professor W. D. Halliburton before the Physiological Section of the British Association for the Advancement of Science, which appears in the November number of the *Popular Science Monthly*, cannot be considered a brilliant effort, nor one which pays full tribute to the importance of the subject. Halliburton, however, expresses a number of thoughts which are suggestive, and which may be profitably commented upon. He explains the evolution of physiological chemistry into what is now more accurately termed chemical physiology. The day has passed when a physiologist can look with contempt upon chemical studies of animal structure. We are fully aware of the vast importance of the systematic study of all substances of physiological interest. In illustration of this point, Halliburton mentions the progress of our knowledge of the carbohydrates, which has resulted in the actual synthesis of several members of the sugar group. Halliburton rightly, in our opinion, deplores the revival of the vitalistic conception in physiological work. He regards this as a retrograde step, and states his reasons cogently. It is a confession of ignorance and, what is more important, a bar to progress to explain anything we are not fully able to understand in the light of physics and chemistry by labeling it as vital or something we can never hope to comprehend. Rather than assume the existence of this vitalistic force, and at the same time assume our knowledge of certain subjects complete, it would be much more rational to regard our present knowledge as in-

complete and not call into our conception an unknown vital force when further knowledge may explain away our difficulties.

The new branch of inorganic chemistry, called physical chemistry, has given us entirely new ideas of the nature of solution, and the fact that electrolytes in solution are broken up into their constituent ions is one of fundamental importance. Dr. Halliburton mentions one of the aspects of the subject as illustrated in the study of the action of mineral salts in solution on living organism and parts of organisms. He gives a résumé of the work of Loeb in this connection.

He makes a plea for the importance in the physiological sciences of the necessity, first, of bold experimentation and, secondly, of bold theorizing from experimental data. Frequently an investigator can see the general law even before the facts upon which it rests are fully worked out. Such theorizing, whether it is ultimately proved to be right or wrong, gives to investigators some general idea upon which to work. The work of Ehrlich on the theory of immunity illustrates the useful part played by bold theorizing, and the work of Pawlow on digestion illustrates the results from new and bold methods of experiments.

President Wilson's Address.—The friends of higher education, in its true sense, will find no uncertain note in the splendid address with which President Wilson distinguished his inauguration at Princeton. These friends in the profession of medicine especially will be pleased to observe that there is no sign of surrender to the somewhat strident demands of what is unfortunately termed "technical" education. We say "unfortunately," for we resent the constant assumption which is made nowadays, that a medical education need be nothing more than "technical."

The grounds for differentiation between a *liberal* and a *technical* education are so clearly indicated by President Wilson that we trust his address will be widely read by medical educators. The flaw in the argument which he assails, and the skill with which he punctures it, are so patent that we trust those pedagogues who would subvert all learning to the exigencies of wage-earning, will read and consider.

It is especially gratifying to read President Wilson's fine tribute to modern science, and his full recognition of its prominent place in any scheme for a liberal education. This tribute should disarm those critics who have been in a state of trepidation lest the new President of Princeton had the mere literary and scholastic habit so ingrained in him that he could not discern the importance of

the physical sciences. There never was reason for such criticism, and whatever of such criticism has tended to linger should be dispelled by the broad-minded pronouncement of the inaugural address.

Medical men will especially note the high rank accorded to the biological sciences. "Biology," says Dr. Wilson, "has already supplied us with a scheme of physical life which lifts its study to the place of a distinctive discipline." It is the catholic spirit which marks this noble address that will commend it to thoughtful members of the medical profession. When they read it they must realize anew that the learning of the race is a solidarity and a common heritage, and that medicine no more than any other science can afford to separate itself from the common stock of knowledge, or its practitioners isolate themselves from the common body of scholars.

Our Early Hospital Charities.—Philadelphia was very early the center of hospital enterprise on this continent. The Pennsylvania Hospital was founded in 1751—just a quarter of a century before the Declaration of Independence. Even before that time Philadelphia had established an almshouse which doubtless discharged in some sort the functions of a hospital.

In his address before the Association of Hospital Superintendents, recently held in this city, Mr. Daniel Baugh pointed out very clearly how strong the impulse was in Philadelphia, even in the early colonial period, toward hospital charities. He justly ascribed this in part to the benevolent instincts of the early Quakers, but much was also due to the practical philanthropy and organizing genius of Benjamin Franklin. The Pennsylvania Hospital is not one of the least of the monuments which bear witness to the humanitarian wisdom of the man who could be equally great in the founding of a library, a university, a hospital, or a nation.

We have pleasure in presenting in this number Mr. Baugh's very interesting address. It served the purpose admirably for which it was written, namely, as a word of greeting to an association which held its sessions this year in the midst of a highly appropriate civic and historical environment. The meeting, we are assured, was deemed fully successful.

Some Hospital Problems in Philadelphia.—This city apparently has on its hands, not one, but two white elephants. These monsters are the Philadelphia Hospital and the Municipal Hospital. A hue and cry is being raised that the former institution, popularly known as Blockley, is infested with tu-

berculosis. Too much probability is given to the justness of this charge by the fact that a comparatively large number of physicians and nurses in recent years have contracted consumption in one form or another at Blockley. If newspaper reports are accurate, there are several hundred cases of tubercular infection in the Philadelphia Hospital at the present time. The buildings are old and overcrowded, and the fact cannot be gainsaid that the conditions there are highly favorable for the propagation of the disease. Modern science cannot witness such conditions and remain silent. The demands at present in the treatment of tuberculosis are for isolation and fresh air. Neither of these demands is met at Blockley, and neither can be met without some radical changes.

One trouble at Blockley is the shiftiness of the city government toward that great charity. The policy is to patch up, to temporize, to jog along, and to save money. A wise and masterful policy is required, but it must be one that will inspire public confidence. Not only a thorough cleaning out, but a radical tearing to pieces, is needed to rehabilitate the place.

The Philadelphia Hospital has been one of the great institutions of this city, but it has outlived its day. It combines an almshouse, a hospital, an insane asylum, a maternity, a children's infirmary, and a nest of tuberculosis. All these things should be shaken apart, separated for good, and (except the nest) reconstructed according to common sense and the dictates of science and humanity. But there must be no cheese-paring about it, and it should be done by the proper men, properly advised.

As to Smallpox Hospitals.—A smallpox hospital is probably the most unpopular neighbor that a man could have. But its unpopularity is not remedied by removing the hospital from one place to another; such a proposal is simply transferring the scene of animosity. Opposition is instantly aroused and intensified, not in one neighborhood, but in every neighborhood. A whole city is in arms at once against putting the "pest-house" anywhere. This has been amply proven in Philadelphia.

If we judge public opinion aright, there is a sentiment crystallizing in this city in favor of leaving the Municipal Hospital where it is. This would be a capitulation to the prejudices of the whole town at the sacrifice of the interests of a small portion of its inhabitants. We are not prepared to say that this would be a proper solution of the difficulty that confronts Philadelphia, but we simply repeat what we once said in these columns, namely, that the

Municipal Hospital must stand somewhere. If its present site is as good as any that could be selected, there seems no good reason to change it.

It is probable that there will be a re-agitation of this subject in Philadelphia this winter. The dicker which led to the proposed purchase of a swamp into which to dump the smallpox hospital, is fresh in the public memory. Nothing could show more plainly than that proposed scheme the panic of the public and the expedients of politicians.

We merely wish to suggest now that it might be worth while to stop and consider whether a well-conducted hospital for contagious diseases is really such a pest-center as people think it is. We have a suspicion that the fear is exaggerated. Has the hospital in its present site been a focus of contagion? This problem concerns not only Philadelphia, but all large cities.

Dr. Daniel E. Hughes.—The death of Dr. Hughes, the Chief Resident Physician of the Philadelphia Hospital, is of peculiarly sad significance at the present time. There is too much reason to suppose that this trusted official has been the victim of the unsanitary conditions prevailing in that institution, conditions to which we have referred in a preceding column.

Dr. Hughes assumed control of the insane department at Blockley under circumstances of unusual difficulty. His task was to convert the insane wards of an almshouse into something like an up-to-date hospital for the insane. If the conditions have never permitted of a full realization of this most laudable idea, the fault was not the fault of the man who undertook it. That he succeeded in raising the institution to a high level of efficiency and respectability, is to his enduring credit; and now that he is dead no better tribute can be paid to his memory than a generous acknowledgment of his devotion to a high ideal. Dr. Hughes will be remembered as an administrator, rather than as a purely scientific alienist; but the work at Blockley pre-eminently demanded such a man, and his mission to the indigent insane was faithfully discharged. He has left a record that should be of lasting benefit to the future administration of this great charity.

Caught Tripping.—We have a standing rule in this *Journal* not to publish anonymous communications; we are, therefore, debarred the pleasure of reproducing an anonymous letter from a reader who congratulates himself on having caught us tripping in our recent editorial comment on "Cardicentesis." In that comment we said in effect that we did not know that such an operation had ever been done before the cases recently reported by Dr. Byrom

Bramwell. Our anonymous critic tells us that Osler, in his *Practice of Medicine*, says that "At the Philadelphia Hospital the procedure (Cardiocentesis) was tried by one of the resident physicians in a case of acute dilatation. The anterior coronary vein was cut across, and considerable blood was found in the pericardium." Again Osler says on page 648: "Puncture of the heart has been recommended as a therapeutic procedure to stimulate it to action, as in chloroform narcosis, and experimental evidence has been brought forward by B. A. Watson in favor of the operation. He advises abstraction of blood in combination with the puncture—cardiocentesis. The proceeding is not without risk. Hemorrhage may take place from the puncture, though it is not often extensive."

If our anonymous friend had only signed his name to his letter, instead of merely adding his initials, we should have published it with a flourish. We have no objection to being "caught tripping" now and then—(if it does not happen too often). With reference to "cardiocentesis," we should prefer not to recommend it for general use.

Abstracts That Are Not Abstracts.—The practice of publishing what amounts in fact to an entire original paper, and calling it an "abstract," is fast becoming a glaring abuse. For instance, an author reads a paper before a medical society and offers it for publication to a medical journal. He assures the editor that the paper is for that journal alone, and that it has not been, and will not be, offered to any other; but he takes care, or he even may not, to say casually that an "abstract" of the paper will appear in a few other journals. Within a week or two said "abstract" begins to show itself, and to the astonished editorial eye is no "abstract" at all, but the paper almost in full, or so slightly changed that the difference requires to be hunted for with a magnifying glass.

Recently an author sent us his paper, with a lot of expensive illustrations. When we were about to prepare for its publication, a so-called "abstract" of the paper appeared in another journal. This "abstract" was the identical paper minus its first paragraph, and with a few inconsequential changes at its tail end! Needless to say, that paper will not be published in this *Journal*.

There is something singularly lacking both in fairness and common sense in this kind of a dodge. "Trying to fool the editor" may go once in a while, but editors are like the rest of the American people, of whom Abraham Lincoln said: "You may fool all of them part of the time, and part of them all the time, but not all of them all the time." The man

who resorts to this method of securing a large circulation for his writings will soon be without credit with every medical editor in the country.

Current Comment.

THE IDEAL UNIVERSITY.

Universities, we have learned to think, include within their scope, when completed, schools of law, of medicine, of theology and of those more recondite mechanic arts, such as the use of electricity, upon which the skilled industry of the modern world is built up; and, though in dwelling upon such an association of schools as the gist of the matter in our definitions of a university, we are relying, upon historical accidents rather than upon essential principles for our conceptions, they are accidents which show the happy order and system with which things often come to pass. Though the university may dispense with professional schools, professional schools may not dispense with the university. Professional schools have nowhere their right atmosphere and association except where they are parts of a university and share its spirit and method. They must love learning as well as professional success in order to have their perfect usefulness.

* * * * *

The modern world nowhere shows a closeted profession shut in to a narrow round of technical functions to which no knowledge of the outside world need ever penetrate. Whatever our calling, our thoughts must often be afield among men of many kinds, amidst interests as various as the phases of modern life. The managing minds of the world, even the efficient working minds of the world, must be equipped for a mastery whose chief characteristic is adaptability, play and initiative which transcends the bounds of mere technical training. Technical schools whose training is not built upon the foundations of a broad and general discipline cannot impart this. The stuff they work upon must be prepared for them by processes which produce fiber and elasticity, and their own methods must be shot through with the impulses of the university.

—President Wilson in his Inaugural Address.

THE NEW OUTLOOK.

I have studied the history of America; I have seen her grow great in the paths of liberty and of progress by following after great ideals. Every concrete thing that she has done has seemed to rise out of some abstract principle, some vision of the mind. Her greatest victories have been the victories of peace and of humanity.

* * * * *

A new age is before us, in which, it would seem, we must lead the world. No doubt we shall set it an example unprecedented not only in the magnitude and telling perfection of our industries and arts, but also in the splendid scale and studied detail of our university establishments; the spirit of the age will lift us to every great enterprise. But the ancient spirit of sound learning will also rule us; we shall demonstrate in our lecture rooms again and again, with increasing volume of proof, the old principles that have made us free and great; reading men shall read here the chastened thoughts that have kept us young and shall make us pure; the school of learning shall be the school of memory and of ideal hope; and the men who spring from our loins shall take their lineage from the founders of the Republic.

—From President Wilson's Address.

Correspondence.

COUNTERIRRITANTS IN MIGRAINE.

By J. R. CLEMENS, St. Louis, Mo.

To the Editor of the Philadelphia Medical Journal:

Experientia docet.—The teacher teaches, but the students do not always listen. The broad distinction between the old therapeutics and the new is that the former is rational and the latter empirical and tentative to a degree. The synthetic group, in which are comprised phenacetine, antipyrine and antifebrin, has spoiled as many good clinical observers as has morphine. Instead of looking on pain as a symptom and a valuable guide to a diagnosis, the advocates of the newer lines of treatment destroy the clue first and then grope about in the dark for a diagnosis. Headache with them calls for a powder and abdominal pain for the inevitable hypodermic. There is no more beautiful example of rational therapeutics than the treatment of apoplexy and no more pitiable one than is witnessed in the treatment of a paroxysm of migraine. Both these conditions, apoplexy and migraine, call for almost identical lines of treatment. In both, cerebral hyperemia and congestion call for derivation of the blood from the brain, but how is the indication answered? In apoplexy, the patient is placed in bed on the flat of his back, the head is raised with pillows, and ice-bags are applied, a drop of croton oil on the back of the tongue and hot-water bottles to the feet. In migraine the sufferer is given powders of the phenacetine group and is obliged to put up with the pain as best he can until the physiological effects of the drug have time to develop. There is a simple remedy which will outdistance phenacetine by hours and which is almost as speedy as chloroform. I have seen patients experience almost instantaneous relief by the application of a mustard plaster to the nape of the neck and ice to the head. I will go farther and say there is no form of migraine, be the cause what it may, that will not be permanently eradicated by the application of a continuous counterirritant in the shape of a seton. Setons and blood-letting are two old-fashioned remedies which it is neither wise nor logical to discredit, seeing they have been handed down to us with the "imprimatur" of the best of all clinical teachers—the experience of ages.

Reviews.

Disinfection and Disinfectants. A Practical Guide for Sanitarians, Health and Quarantine Officers. By M. J. Rosenau, M. D. Illustrated. Small 8vo., 355 pages and index. Cloth, \$2.00. P. Blakiston's Son & Co., Philadelphia.

This work will find acceptance for two reasons. Its author is the Director of the Hygienic Laboratory of the U. S. Public Health and Marine-Hospital Service, and in that capacity will speak with some official force, although no claim for such is made in the book. The words that Sir Joseph Porter addressed to Captain Corcoran were intended to refer to England, but they apply also to our own country, namely, that "it is the characteristic of this happy country that official utterances are regarded as unanswerable." Apart from the authority that the book will get from the position of its author, it is a work of excellent quality, and is a timely addition to the literature of the subject. Few questions accessory to medical practice have undergone more exact scientific development than the methods of disinfection. Before the invention of the methods of detecting and isolating bacteria, and studying their life history, disinfection was largely haphazard and traditional. It is true that in some ways the experience of mankind had indicated the proper lines (as in the case of the use of sulphur dioxide), but in other re-

spects the practices were troublesome and useless. Now it is possible to determine with some precision the actual disinfecting value of the different agents.

The work before us deals, of course, with the latest approved methods. The author states frankly in his preface that he has made mistakes in disinfection, and has seen others make mistakes and rightly judges that a concise statement of the best methods will be worth printing. The text is comprehensive, covering consideration of physical and chemical agents, the division of the latter into "gaseous" and "chemical solutions" being not altogether commendable, but doubtless suggested by practical exigencies. A short chapter is devoted to insecticides, a most important department of disinfection. Here we note that the author is timid as to the use of the hydrogen cyanide (prussic acid) which has been found so useful in destroying many kinds of insects. He advises against its use in household disinfection, but the experience of some of the experts of the Department of Entomology at Washington is to the effect that with reasonable care no injury will result. A large space is devoted to the disinfection of enclosed spaces, as in houses and ships, and the work closes with about a hundred pages on disinfection applied to special diseases. There are nearly one hundred illustrations, many of which are very good; a few not so commendable. It is to be regretted that in the plates showing microscopical appearances, no indication is given of the magnifying power used. We doubt, indeed, whether in a work like the present it is worth while to give the crudely drawn pictures of bacteria, molds, etc. Practical knowledge of the use of disinfectants is not aided materially by a knowledge of the minute anatomy of the germs. Many new forms of apparatus employed in disinfection are figured and will be welcome to the special student and health officer. The reformed spelling is adopted in part, but the chemical nomenclature is not up to the latest form. We are somewhat puzzled to know what justification there is for the dropping of the final "e" in "formaldehyde." If a word is pronounced so as to rhyme with "tide," as is the usual rule, the final letter must be retained, as it has a phonetic value. The reformed spelling is not a mere dropping of letters; it is an effort to give words a more rational form.

[H. L.]

Zum Studium der Merkfähigkeit. By August Diehl, M. D., Berlin, 1902.

The subject of experimental psychology has been greatly exploited in the last two decenniums, and some interesting facts have been brought to light. Nevertheless, the utility of these facts to the neurologist has been singularly slight. It is only necessary to compare the early writings of Goldscheider, upon experimental psychology, which were among the best of their time, with his later publications upon disease of the nervous system, to perceive how little use he made of the former in preparation for the latter. Dr. August Diehl, however, has felt that he could discover some new things about memory and has carried out a series of experiments by means of which he believes he has been able to prove certain points. It is unnecessary to detail these experiments. They were made upon women varying in age from 9 to 51 years, who were given certain simple things to remember, their memories tested at the end of 24 hours, and then at longer intervals. The facts that were developed, with one exception, were not especially novel or startling. We knew before that the memory of old persons for simple things is not as good as that of children. We knew that there are considerable individual variations in the power of memory, some persons remembering one class of facts better than others. We knew that memory is rendered more uncertain if the object to be remembered is complex. We most of all knew from our own experience that we may be very sure that we remember something correctly, when as a matter of fact our memory is false. In fact, to sum up these conclusions, memory is at best a rather uncertain faculty, and those of us who have not been conscious of this for a considerable number of years, are fortunate indeed. All these things that Diehl discovered were stated by Ribot some 25 or 30 years ago, and the labor expended was therefore, to a considerable extent, wasted. The only interesting thing, however, that was discovered, and unfortunately the tests made were so few that it is impossible to consider them as conclusive, is that if at the expiration

of a certain interval—in this case, 24 hours—a person is asked to repeat certain things learned, and makes a mistake, and then, without expecting to be called upon again, is tested at a longer interval—say two or five days—a certain proportion of the mistakes will have been unconsciously corrected. That is to say, the memory at the longer interval is more accurate than the memory at the shorter interval. Diehl perceives quite clearly the medicolegal importance of this fact, suggesting as it does that the witness, testifying long after the occurrence, may be perhaps more accurate than the record made shortly after it either by this witness or by another. This is certainly an interesting subject for further experimentation. Forel contributes a characteristic introduction in which, after rather lavishly condemning our modern methods of education, he insists that we should be taught, not facts, but where to find them. [J. S.]

Applied Surgical Anatomy Regionally Presented; For the Use of Students and Practitioners of Medicine. By George Woolsey, A. B., M. D., Professor of Anatomy and Clinical Surgery in the Cornell University Medical College; Surgeon to Bellevue Hospital, Associate Surgeon to the Presbyterian Hospital; Fellow of the American Surgical Association and of the New York Academy of Medicine. Lea Brothers & Co., New York and Philadelphia, 1902.

The book which should occupy a most accessible place upon a surgeon's shelf is an anatomy. It is, with one exception, namely, a work on operative surgery, the one book to which the surgeon has most frequent recourse. Most of the ordinary works on descriptive anatomy have fallen a little short of presenting exactly and comprehensively what is needed, and therefore the demand for a work on regional or surgical anatomy. The book before us, by Woolsey, is one which will be found most satisfactory to every surgeon, dealing as it does with anatomy from the modern surgical point of view. It is not so exhaustive as some of the works on descriptive anatomy or as some of the more recent and excellent works on regional anatomy, but it condenses as far as possible the information contained in these more extensive treatises, and presents it in a most comprehensive and helpful manner. In a book of this size, of course, the illustrations cannot be very numerous, but these are well chosen and well made, and, we think, quite sufficient. The illustrations representing transverse sections of important portions of the body will be found of the greatest assistance in forming an idea of the relative anatomy of the parts.

The work is of convenient size, which renders quick and ready reference possible. Another feature which will appeal to the busy surgeon, and which is so often absent in even good works, is a complete index.

The subjects are arranged regionally in seven chapters. We believe that this book will meet with a ready reception. [J. H. G.]

Argyll-Robertson Pupils and Cerebrospinal Lymphocytosis.—Widal and Lémierre (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 31, 1902) have examined the cerebrospinal fluid from 6 patients, all over 40 years of age, showing the Argyll Robertson pupil. In all cases lymphocytosis was marked. One patient had no other symptoms, 2 had syphilitic antecedents: and one had had a soft chancre. These results show that the Argyll-Robertson pupil, even when alone, discloses some organic alteration of the nervous centers which has already caused irritation of the meninges. [M. O.]

Appendicitis Following Dysentery.—Vandenbossche (*Archives de Médecine et de Pharmacie Militaires*, September, 1902) recently reported an interesting case of appendicitis in a soldier, aged 34 years, in China, following dysentery, which had existed for 3 weeks before appendicitis developed. A circumscribed abscess was found at operation and drainage tubes were left in place. Perforation of the cecum followed, with death on the eighth day after symptoms of appendicitis had appeared. The autopsy confirmed the diagnosis. When dysentery reached the large intestine, appendicitis resulted. Only later did the perforation of the cecum occur, an effect of the dysentery. Many details are given. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.



Courtesy of the "Philadelphia Press."

DR. DANIEL E. HUGHES.

Death of Dr. Hughes.—Dr. Daniel E. Hughes, chief resident physician at the Philadelphia Hospital since 1890, died early on the morning of October 28, of tuberculous peritonitis, aged 52 years. His illness made its first appearance several months ago, and he has been seriously ill for the past 2 weeks. He was graduated from the Jefferson Medical College in 1878, and for some time was clinical assistant to Drs. J. M. Da Costa and Roberts Bartholow. He then left for Williamsport, his native city, where he practised medicine until 1885, in which year he visited the insane asylums of Europe, in company with Dr. T. H. Andrews, formerly his preceptor. Dr. Hughes has always been considered a trustworthy expert in cases of insanity, and his opinion was always highly respected in court. Beside his knowledge of insanity, he exerted a powerful personal influence upon insane patients. He was the author of a number of articles on insanity, medicine and therapeutics, his book on clinical medicine being commonly used in medical schools as a text-book. He was admired and respected by the many physicians, nurses, patients and employes of the Philadelphia Hospital and Almshouse with whom he came into daily contact. They, even more than his personal friends, have shown grief and sorrow at his death.

Appendicitis at Lebanon.—A gangrenous appendix was removed 2 weeks ago from a 41-hour old child, with successful recovery following. On the same day the same physician also performed the operation for appendicitis on a man aged 70 years, who is also said to be recovering.

International Clinics.—In our issue of October 25, an error appeared in the statement that Dr. Aloysius O. J. Kelly had become editor of the International Clinics on October 1. Dr. Kelly does not assume the editorial direction of the above-mentioned publication until January 1, 1903. Until that time Dr. Henry W. Cattell remains its editor.

Jefferson Medical College.—Dr. Addinell Hewson has been appointed assistant professor of anatomy, Dr. E. Q. Thornton, assistant professor of therapeutics and materia medica, and Dr. J. M. Fisher, assistant professor of gynecology. Dr. S. Solis-Cohen was elected senior assistant professor of clinical medicine, and Drs. T. G. Ashton and J. L. Salinger were elected assistant professors of clinical medicine, for the period of 3 years. Drs. Ashton and Salinger have declined their appointments.

Congenital Dislocation of the Hip.—In order that Dr.

Adolf Lorenz, of Vienna, who will hold a clinic at Jefferson Medical College Hospital near the middle of November, may have a large number of cases of congenital dislocation of the hip from which to select those suitable for his bloodless operation, Dr. H. A. Wilson, professor of orthopedic surgery at Jefferson Medical College, requests physicians having knowledge of such patients that are poor and suitable, to communicate with him. The date of the clinic will soon be announced.

German Hospital.—By the will of the late Philip Jagode, \$5,000 were left to the German Hospital, to found a free bed in memory of his wife. Should his daughter die without children, \$20,000 more will go to the German Hospital.

NEW YORK.

The Health of New York.—The Health Department has sent a circular letter to the 7,000 physicians in the city, appealing for early and thorough vaccination, to prevent a return of smallpox. The Board of Health also claims that 18% of the children of the public schools are suffering from trachoma, 10% of them requiring immediate operation. The sum of \$21,800 has been asked for, to cover the cost of the examination of the school children and the necessary treatment. The disease was probably introduced into New York by immigrants.

New York Metropolitan Hospital.—Dr. T. D. Crothers, of Hartford, Conn., has recently been elected consulting neurologist to the New York Metropolitan Hospital and Dispensary.

International Congress of Americanists.—The 13th. annual meeting was held in New York City, October 20 to 25. A great number of archæologists and scientists were present. French was the official language of the congress, although it was not understood by more than half of those present. Among those who took part in the various discussions were Drs. David Boyle, Canada; A. F. Chamberlain; G. A. Dorsey, who exhibited the skull of the so-called "Lansing Man," which he believed to be a typical Indian; Ales. Hrdlicka, who corroborated Dorsey's work; W. J. McGee, Washington; Franz Boas, New York; Karl von den Steinen, Stuttgart, Germany; W. H. Holmes, Washington; Hjalmar Staple, Sweden; and Edward Seler, of Germany. The great majority of the scientists assembled were not physicians.

Associated Physicians of Long Island.—At the 14th. annual meeting, held at Riverhead, October 18, papers were read, on the control of marriage by Dr. W. B. Savage, East Islip; typhoid fever and appendicitis, by Dr. W. F. C. Campbell, Brooklyn; the relation of obstetrics to surgery by Dr. R. H. Pomery, Brooklyn; and acute contagious diseases of the eye by Dr. J. H. Ingalls, Brooklyn.

Dr. Van Valzah's Return.—Because of a rumor that Dr. W. W. Van Valzah, who has been away from New York for almost 4 years in an effort to regain his health, had given up the practice of medicine, we are asked to announce his return to New York, where he has again resumed professional work.

Bequests.—Among the institutions to which \$200,000 have been left by the will of the late S. M. Rickard, of Saratoga, are the Saratoga Hospital and the Saratoga Home for Children.

Death of Dr. Phelps.—Dr. Abel M. Phelps, professor of orthopedic surgery at the University of Vermont, the University of New York and the New York Post-Graduate Hospital and Medical School, died in New York, October 6, aged 51 years. Dr. Phelps was graduated from the University of Michigan in 1873 and then became surgeon for the Vermont Central Railroad. From 1880 to 1884 he worked with Schede, Esmarch, Volkmann, Billroth and Thiersch, in Europe. In 1887 he was elected vice-president of the New York State Medical Society, president in 1900, and president of the American Orthopedic Society in 1894. A number of orthopedic operations have been devised by him. He was also surgeon to the New York Hospital. Resolutions upon his death were passed at a meeting of the faculty of the New York Post-Graduate School and Hospital, held October 8, 1902.

MISCELLANY.

The Health of Cuba.—For September, 1902, the death-rate of Havana was 17.86 per 1000. With the end of September a full year was completed since a case of yellow

fever originated in the city of Havana. This is an unparalleled event in the history of the older physicians of Havana. The U. S. P. H. and M.-H. S. officer at Cienfuegos complains that the sanitary condition in that city is deteriorating; that the sewage system is entirely inadequate, and that no efforts have been made to kill mosquitoes or to prevent their propagation.

Yellow Fever on the U. S. S. Montgomery.—The U. S. S. cruiser *Montgomery*, which reached San Juan, P. R., October 27, has reported a case of yellow fever on board. No extension of the disease is feared, in view of the excellent methods of handling such cases aboard ship. The *Montgomery* was recently on duty at Colon, where the Government troops have been dying from yellow fever, dysentery and smallpox, according to the latest reports.

Cholera in the Philippines.—While the disease has markedly decreased in the city of Manila, the epidemic is still severe in the provinces, especially in Iloilo, Panay and Mindanao. The chief quarantine officer in the Philippines reports that Iloilo and Negros have lost 10% of their population. Up to September 19 there had been 58,147 cases with 40,707 deaths reported, but when 30% is added for unreported cases, a more correct idea of the gravity of the disease may be gained. His estimate of the actual number of cases is 75,000, with a total mortality of 75%.—Cholera is decreasing at Hong Kong and Shanghai, China.—Cholera appeared September 12, at Aden and Hodeidah, Arabia, 9 deaths having occurred in one house. Cholera has also appeared at Medina, 18 deaths having occurred in 2 days, in the latter part of September.

Bubonic Plague.—Under the date of September 18, 4 new cases were reported at Odessa, Russia, bringing the number of cases, since the beginning of the epidemic, as officially reported, up to a total of 23 cases.—Under date of October 3, 2 suspected cases of bubonic plague were reported at Smyrna, Turkey.—Outgoing quarantine on account of bubonic plague at Honolulu, H. I., was removed on October 5, and on October 14 another death from plague occurred in that city.

Obituary.—Dr. Lucian L. Bedell, at Denver, Col., October 5, aged 72 years.—Dr. E. P. Miller, at Sullivan, Ill., October 7, aged 37 years.—Dr. T. T. Orendorff, at Rolling Fork, Miss., October 3, aged 55 years.—Dr. Harwig Runge, at Stillwater, Miss., October 5, aged 89 years.—Dr. Joseph L. Conway, at Chicago, Ill., October 7, aged 24 years.—Dr. A. J. Childress, at Terrell, Tex., October 15.—Dr. John A. Buffington, at New Windsor, Md., October 17.—Dr. Isaac Palmer Leete, at Branford, Conn., October 20, aged 82 years.—Dr. Joseph H. Sheppard, at Bridgeton, N. J., October 23, aged 74 years.—Dr. Andrew B. Bausman, at Milwaukee, Wis., October 22, aged 49 years.—Dr. Frederick R. Nordmann, at Baltimore, Md., October 22, aged 43 years.—Dr. Henry C. Matthews, at Clifton Springs, N. Y., October 22.—Dr. R. W. Murphy, at San Francisco, Cal., October 21.—Dr. Frank E. Martindale, at Port Richmond, S. I., October 26, aged 72 years.—Dr. David Morgan McDonald, at Gutchessville, Pa., October 26, aged 50 years.

GREAT BRITAIN, ETC.

Infant Mortality in England.—At the Manchester meeting of the British Medical Association Dr. Rhodes stated that, while the birth-rate in England showed a diminution, the mortality of children shows no such decrease. Out of 927,062 children born in England in 1900, no less than 442,912 died under the age of one year. Yet the general death-rate had decreased from 22 to 18 per 1,000. This does not, however, apply to the infantile death-rate, which, while 154, 50 years ago, was 163 in 1899.

International Congress for the Welfare and Protection of Children.—The third international meeting was recently held in London. The work of the congress was divided into 3 sections, medical, legislative, and educational and philanthropic. Sir James Crichton Browne said that it was essential, to promote the material welfare of children, to understand their nature and physical attributes, their stages of growth and the conditions necessary to maintain health. The time had come when much greater attention must be paid to the physical efficiency of children. The diminished death-rate of the past few years was poor consolation when it was considered that those kept

alive were a weak, inefficient class; technical education would be of little avail if the standard of life among the working classes was gradually lowered. It was among the toilers in the large towns that this physical decadence was going on, and the serious import of this is clearly seen when it is remembered that, out of the population of England and Wales, 77% live in towns and only 23% remain in the country. The decline in the physique of town dwellers was due to the conditions of town life generally, but the greatest contributing cause was the insufficient and improper feeding of children. It has been proved that one of the strongest reasons for the formidable rivalry of the United States during recent years, in all departments of industry, is that the working class is better nourished than in England. Conditions necessary to the proper development of a healthy race are wholesome dwellings, fresh air, pure water, exercise and repose. Another source of physical impairment is child labor. This still exists in certain districts, especially in the textile trades. That young married women work also increases infant mortality and retards the growth of their children. The percentage of such employment, however, is diminishing. He hoped that important industries might be removed to the country, where there are so many more chances of healthful surroundings for children. He remarked that tubercular meningitis has greatly increased among the poor. Among the influences that had been at work to create this increase, the most common was excessive stimulation of the cerebral centers. There could be no question that all children affected with tuberculosis should be rigidly excluded from schools, for their sake as for that of their companions, the education of such children being carried on in special seaside sanatoria.

An Ectomelus.—Dr. McGibbon, of Liverpool, reports the case of a living female infant, born with both the upper and lower extremities almost entirely absent. The child is healthy and vigorous. An excellent photograph of the infant, taken when 5 days old, accompanies Dr. McGibbon's article in the *Lancet* for September 20, 1902.

London School of Tropical Medicine.—B. D. Petit, of Bombay, has donated \$30,000 to the London School of Tropical Medicine.

Manchester Sanatorium for Consumption.—The foundation stones for this sanatorium, being built in Delamere Forest, at the expense of W. J. Crossley, were laid October 7. The sanatorium is connected with the Manchester Hospital for Consumption. Mr. Crossley has promised this institution \$350,000, on condition that it is endowed by the public. For this endowment \$200,000 have already been subscribed.

Hampstead Hospital.—The foundation stone of the new building at Hampstead Green, which will cost \$150,000, was laid October 21 by Princess Christian. The new building will accommodate 50 beds.

Leprosy Conference in India.—The following resolutions were recently passed at a conference of superintendents of leper asylums, held at Wardha: The Conference is convinced of the contagious character of leprosy. The Conference regrets that the Leprosy Commission of 1890-91, while arriving at the same conclusion, saw fit so to minimize it as to state that "under ordinary human surroundings, the amount of contagion is so small that it may be disregarded." The Conference is of the opinion that, taking the figures given by the Leprosy Commission, and in view of the extremely serious nature of the disease, lepers should be segregated. The Conference expresses its satisfaction that the Government notwithstanding the conclusions of the Leprosy Committee, has passed a bill for the segregation of pauper lepers, but it regrets that up to the present time the Government has not enforced it. The Conference further expressed the opinion that, making allowance for special cases, there should be strict segregation of the sexes, both married and unmarried, in leper asylums.

CONTINENTAL EUROPE.

International Tuberculosis Congress in Berlin.—This was opened by a reception, October 22, at which speeches were made by Dr. von Leyden, Berlin, and Dr. Brouardel, Paris. At the first session, October 23, a paper was read by Dr. Chalmette. Lille, on the house to house crusade against tuberculosis in France. By this principle the largest relief

is given to the less seriously injured among the poor, so as to lengthen their lives. Their lodgings are washed regularly with chloride of lime and the walls are frequently white-washed. The patients receive clothes, bedding, a pocket cuspidor, a table cuspidor and one liter of lysol weekly. Steam laundering is done for 60 poor families, at an average expense for each patient of 20 cents a day. The sanitary education of the families is done at home, mostly by intelligent workmen specially taught for this kind of lecturing. They explain how to make a house healthy, disinfect linen and supply food and material for relief during the person's enforced idleness. Dr. van Rynn, Brussels, read a paper on the notification of cases of consumption to the health authorities, a method which has been so successful in New York. Dr. Andvord, Christiania, said that compulsory notification has existed in Norway since January, 1901. Dr. de Gouvea, Rio Janeiro, reported the progress made against tuberculosis in South America. The next day was spent studying the great public sanatorium now being built at Belzig, near Potsdam. This institution is unique in Europe. The buildings alone cost 2 and a half million dollars and will accommodate 600 persons, one-half of whom suffer from tuberculosis. The other section, for patients with chronic diseases of nerves, heart and kidneys, is completely separated from the tuberculosis section. No patient will be received who is unable to be out of bed. The maximum stay at the hospital for each person is 14 weeks.

At the session of October 25, Koch's theory that animal and human tuberculosis are not identical was the subject of discussion. Dr. Heron, London, stated that there had been a relaxation in the enforcement of the laws prohibiting the sale of tuberculous milk and meat in parts of England, and that this had not been followed by an increase in the death-rate from tuberculosis. Dr. Möller, in his experiments, supported Dr. Koch's contention. Dr. Hillier, London, said that, whether Koch was right or wrong, milk for infants should always be sterilized. Dr. Koch then read a paper in which he maintained all his former positions regarding the nontransmissibility of animal tuberculosis to man. After reiterating his former statements, Dr. Koch said that if measures are taken to combat animal tuberculosis, they must be on economic, not on sanitary grounds. Patients with tuberculosis should always be isolated. Dr. Köhler believes that human and animal tuberculosis are intercommunicable, and Dr. Nocard, Alfort, showed that the bacilli were undoubtedly transmitted through milk from animals to human beings. Dr. Arloing, Lyons; von Baumgarten, Tübingen; Bang, Copenhagen; and Müller, Belzig, also discussed the transmission of bovine tuberculosis to human beings. The next day, at the closing session, Dr. Williams, London, advocated the classification of patients in sanatoria according to the progress made for recovery. A paper was also read by Dr. Charles Denison, Denver, Col., on the direction which should be taken in the investigation of tuberculosis. The next meeting of the congress will be held in Paris, next year.

Polyclinic Hospital, Vienna.—Baron Nathaniel Rothschild donated the sum of \$200,000 to the Polyclinic Hospital, of which Dr. Alois Monti, the well-known pediatrician, is director, October 24. The capital is to remain untouched, but the interest is left entirely at the discretion of the managers of the hospital, which contains 140 beds.

The Effect of Nutrition on Growth.—Dr. M. Springer read a paper on this subject at the Académie de Médecine, Paris, last week, in which he specified the 4 elements of nutrition which had most effect in inducing organic development, lecithin, potash, oxygen and water. He also pointed out that electricity is a powerful agent in developing animal growth. By the faradaic current alone growth and an increase in weight in children have been obtained.

An Antipertussis Serum.—It is reported that Dr. Leuriaux, of Brussels, has devised a serum which, when injected subcutaneously, will cure whooping cough in from 8 to 10 days. The serum is said to be harmless. The first effects are apparent about 48 hours after inoculation. The serum produces an early cessation of the coughing fits and a great diminution in the period of illness.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

October 11, 1902. (No. 2180.)

1. The Huxley Lecture on Recent Studies of Immunity, with Special Reference to Their Bearing on Pathology. WILLIAM H. WELCH.
2. Concerning Spastic and Syphilitic Spinal Paralysis. WILH. ERB.
3. Death from Chloroform Poisoning. JOHN A. HAYWARD.
4. A Discussion on the Modern Indications for Cesarean Section. A. L. GALABIN, MURDOCH CAMERON, J. M. MUNRO KERR, ROBERT JARDINE, HERBERT SPENCER, J. STUART NAIRNE and WM. WALTER.
5. Total Abdominal Hysterectomy (Especially by Doyen's Method) for Fibromyoma Uteri, with Notes of 14 Cases. HERBERT R. SPENCER.
6. Phototherapeutics as a New Therapeutical Agent in Obstetrics and the Diseases of Women. CURATULO.
7. Remarks upon Ectopic Gestation, Studied Especially with reference to Diagnosis and Indications of Treatment. GEORGE TUCKER HARRISON.
8. The Use of Potassium Chlorate in the Treatment of Cases of Habitual Death of the Fetus in the Later Months of Pregnancy. ROBERT JARDINE.
9. Puerperal Eclampsia in the Light of Thyroid Inadequacy, and its Treatment by Thyroid Extract. H. O. NICHOLSON.
10. A Case of Intermenstrual Dysmenorrhea (Mittelschmerz) Cured by Successive Oöphorectomies. R. H. A. WHITELOCKE.
11. Neurasthenia (so-called), Hysteria and Abdominal Section. J. STUART NAIRNE.
12. A Discussion on the Operative Treatment of Prolapsus Uteri. D. BERRY HART, G. M. EDEBOHLS, H. MACNAUGHTON-JONES, F. BOWREMAN JESSETT, W. J. SMYLY, F. J. McCANN, J. INGLIS PARSONS, STANMORE BISHOP, J. TENNANT, FREDERICK EDGE, G. H. A. COMYNS BERKELEY and A. L. GALABIN.
13. The Past and Present Treatment of Uterine Fibroids. MURDOCH CAMERON.
14. The Iodo-bromo-saline Waters of Salsomaggiore in Diseases of Women. CURATULO.
15. Vaginal Fixation. F. J. McCANN.
16. The Abuse of Mercuric Chloride Solutions in Obstetric Practice. C. R. MARSHALL.
17. The Undesired and Unexpected Actions of Medicines. Including Tolerance and Idiosyncrasy to, or Abnormal Results from, Ordinary Doses. LAUDER BRUNTON.
18. The Therapeutic Value of Alkaline Waters of the Vichy Type. OSCAR LIEBREICH.

1.—Treated Editorially in Philadelphia Medical Journal for October 25, 1902.

2.—Erb is persuaded that the existence of spastic spinal paralysis has been amply established, clinically as well as anatomically, and that it must occupy a place among the chronic system diseases of the spinal cord. The disease is characterized by weakness in the legs, spasm and rigidity of the muscles and exaggeration of the tendon reflexes. The underlying anatomical lesion is a gray degeneration most marked in the pyramidal tracts. He also believes that syphilitic spinal paralysis is a clinical entity. It is a combined system disease, in which there is a primary gray degeneration chiefly in the fiber tracts of the posterior half of the lateral tracts of the spinal cord.

[J. M. S.]

3.—Hayward reports the case of a woman, aged 39 years, who had been drinking heavily. She probably swallowed 2 ounces of pure chloroform. When first seen she was deeply comatose; her pulse was imperceptible at the wrist; her heart sounds were feeble; her breathing was shallow but regular. After 20 minutes the patient had partially recovered consciousness and had vomited a quantity of dark, chocolate-colored fluid and passed a few

ounces of brighter blood *per rectum*. Her heart action remained very feeble, and after an attack of retching the patient collapsed and died. The death was probably due to chloroform poisoning. [J. M. S.]

4.—Galabin believes the time is ripe for further extension of **Cesarean section** in the treatment of pelvic obstruction, but that extreme caution should be used in its application to the treatment of ante partum hemorrhage and eclampsia. Cesarean section should be advised instead of embryotomy in all cases of pelvic contraction, providing that the decision can be made before, or early in, labor, that the patient has not been exposed to sepsis, and that an operator skilled in abdominal surgery is available. In obstruction of labor by ovarian tumors the unopened uterus should be turned out of the abdomen and ovariectomy performed. Symphysiotomy has a very limited field in obstetrical surgery. The wound cannot be kept aseptic, there is a possibility of future lameness, of injury to the bladder, of division on one side of the pudic nerve supplying the clitoris, and the operation does not allow of sterilization. Cameron urges that embryotomy in a very contracted pelvis is as dangerous to the mother as Cesarean section; it always compromises the life of the child whilst Cesarean section gives a living child. No one has the right to sacrifice the child when it may be saved without exposing the mother to additional risk. Cesarean section might be advisable in some cases of eclampsia, but a skillful obstetrician would never think of such a procedure in the case of placenta previa. Cameron presses a flat vulcanite pessary upon the uterine wall around the point to be incised in order to prevent hemorrhage. Hysterectomy for bleeding is bad treatment, as pressure with a warm sponge never fails to secure thorough contraction. After the uterus has been sutured, the Fallopian tubes should be ligated and divided to prevent future conception. Kerr, in discussing the Fritsch fundal incision in Cesarean section, says its only advantage is that the child can be more readily extracted. The only proved objection to the incision is that the uterus becomes attached to the abdominal wall high up and remains larger. A high anterior longitudinal incision is the best for routine practice, but when the uterus is to be removed the fundal incision is the better, as the child can be more easily delivered.

[F. T. S.]

5.—Spencer says the ideal operation for **fibromyomata of the uterus** is amputation if the tumor is pedunculated, and enucleation if the growth is sessile. For tumors not larger than a fetal head vaginal hysterectomy is to be preferred, for larger tumors abdominal hysterectomy is the better operation. In operating by the abdominal route Spencer favors total hysterectomy by the Doyen method, the essential features of which are the opening of the posterior vaginal fornix, seizure of the cervix through the hole thus made, and excision of the uterus without previous ligation of the vessels. After the uterus has been removed all bleeding vessels are ligated and the peritoneum closed with a pursestring suture. The vagina is left open for drainage. The only objection to this operation is the slightly longer time consumed in its performance. Its advantages are complete hemostasis, small amount of blood lost during the operation, good vaginal drainage, complete closure of the peritoneum, avoidance of septic discharges from the cervix, and the prevention of cancer or sarcoma of the cervix. [F. T. S.]

6.—Curatulo presents a diagram of a speculum which he has devised for the application of light as a remedial agent in diseases of women. [F. T. S.]

7.—Harrison contends that rupture is not the usual termination of an **ectopic gestation**. The majority of ova perish in the earlier months of pregnancy, and if this occurs at a period of development numbered by days, absorption is not attended with difficulties, the dead ova disappearing without a trace. Tubal abortion and hematocele occur ten times to one tubal rupture. As soon as a pregnant tube is recognized it should be removed whether there be symptoms or not. Hematocele should be treated expectantly if the symptoms progressively improve. If the tumor becomes larger and the general condition deteriorates, active intervention is imperatively demanded. [F. T. S.]

8.—Jardine reports 5 instances in which **potassium chlo-**

rate was successfully used in cases of **habitual death of the fetus** in the latter months of pregnancy. The treatment should begin at about the end of the third month, ten grains being given three times daily. [F. T. S.]

9.—Nicholson explains his conception of the nature of **puerperal eclampsia** as follows: Owing to inadequacy of the maternal thyroid system the supply of iodothyron becomes insufficient for the needs of normal metabolism. Coincidentally certain toxic substances (imperfectly converted products of nitrogenous metabolism) find their way into the circulation. These toxins by their special property of contracting the bloodvessels eventually lead to arrest of the renal secretion. Suppression of urine is followed by convulsions differing in no respect from the fits of ordinary uremia. To readjust the metabolic processes and establish the secretion of urine, thyroid extract is a valuable remedy. [F. T. S.]

10.—Whitelocke describes a case of **dysmenorrhea** in which the pain began ten days before the flow and in which relief was obtained by oöphorectomy. [F. T. S.]

11.—Nairne believes there is an organic lesion in every case of neurasthenia and hysteria. In almost every abdominal section which he has performed on patients suffering from neurasthenia an intra-abdominal lesion, especially a "rigid uterus" was found. [F. T. S.]

12.—Hart regards **prolapsus uteri**, leaving out of account rare cases of hypertrophy of the supravaginal portion of the cervix, as a hernia of a definite part of the pelvic floor. After displacement the hernia is reproduced by the patient's straining, the parts being driven down in a well-known definite order. Operations for prolapsus uteri may be classified as follows: (1) Those which attempt to tie up the displaced portions, ventrofixation; shortening of round ligaments, etc. (2) Those which remove hypertrophic portions, and indirectly by cicatrization make bearing points; amputation of cervix; elytrorrhaphies (mesial and lateral). (3) Those which hinder the eversion of vaginal walls; partial union of walls; vaginal implantation. (4) Those which repair and extend a torn supporting part; perineorrhaphies. (5) Those which aim at removing displacement so far as is possible, and in uniting the supporting part in which the resection has taken place; vaginal resection and hysterectomy. The most useful operations are the combined cervical amputation; elytrorrhaphy and perineorrhaphy in medium cases; ventrofixation in selected cases. In advanced cases in widows, vaginal resection and hysterectomy has to be considered. [F. T. S.]

13.—Cameron asserts that not more than one-third of the cases of **uterine fibroids** coming under his observation require surgical interference and that only on account of pain, hemorrhage, pressure, twisting of the pedicle, degeneration or quick growth. When operation is not thought advisable potassium bromide, ergotine and occasionally electrolysis are used. In certain cases removal of the ovaries is strongly indicated. Multiple intramural tumors require hysterectomy. [F. T. S.]

14.—Curatulo writes of the value of the iodo-bromosaline waters of **Salsomaggiore in diseases of women**. The treatment at Salsomaggiore consists in baths, applications of mud, inhalations and irrigations, steam sprays, massage, electrotherapy, cataphoresis and, in suitable cases, light baths. Good results are obtained in cases of pelvic inflammation, dysmenorrhea and uterine fibroids.

[F. T. S.]

15.—McCann advocates **vaginal fixation for backward displacement of the uterus**. [F. T. S.]

16.—Marshall speaks of the danger of **mercuric chloride poisoning from irrigation of the uterine cavity** or even the vagina, especially when there have been recent lacerations.

[F. T. S.]

17.—Drugs may exert an **unexpected action** by failing to produce their usual effect, by having an excessive effect or by having an unusual effect. Brunton points out that cascara sagrada often fails to produce its effect because the bark has been secured from the wrong species of rhamnus. Many plants contain active principles that are antagonistic to each other, and plants may deteriorate by being kept too long in a shop. The relationship of medicines to meals is very important, and one of the best examples of this is arsenic. Such a drug may act on the

body at the point of application; after its absorption it may act on any organ of the body to which it is carried by the blood; during its elimination it may act upon the skin, the mucous membrane or the kidneys. [J. M. S.]

18.—Artificial mineral waters differ from natural mineral waters in several respects. In the first place, the various salts employed in the production of an artificial mineral water are not chemically pure. (2) The majority of analyses of natural mineral waters are not calculated to 100%; (3) there are unavoidable inaccuracies in weighing; (4) the carbon-oxysulphide which is found in some natural waters cannot be artificially incorporated in an artificial water; (5) in nearly all natural waters there is a colloid substance known as glairin; (6) the carbonic acid present in natural mineral waters probably exists in the form of the hydrate, while in artificially impregnated waters the anhydride is the only form found. Liebreich says that Vichy is an example of a natural alkaline water. The different Vichy springs are not identical in character, and the waters from these springs have different therapeutic effects. The alkaline waters are especially indicated in the treatment of gout, diabetes mellitus, chronic catarrh of the stomach, gastric ulcer, hypersecretion of the gastric juice, in the prevention of the formation of gall-stones, in bladder diseases, in albuminuria and in phosphatic depositions. [J. M. S.]

LANCET.

October 11, 1902.

1. Opening Lecture on Spastic and Syphilitic Spinal Paralysis. WILHELM ERB.
2. Introductory Address on the Reorganized University of London. A. W. RUECKER.
3. The Huxley Lecture on Recent Studies of Immunity with Special Reference to their Bearing on Pathology. WILLIAM H. WELCH.
4. Rats and Plague. G. J. BLACKMORE.
5. A Case of Puerperal Septicemia. A. F. DIMMOCK.
6. A Case Illustrating the Local and Pulmonary Effects of Abdominal Pressure. ROBERT KNOX.
7. A Case of Anencephalus. W. H. MAIDLOW.

1.—See abstract of *British Medical Journal*, for October 11, 1902, in *Philadelphia Medical Journal*, this issue.

3.—Treated editorially in *Philadelphia Medical Journal*, October 25, 1902.

4.—Blackmore contributes an article entitled *rats and plague*. It contains concise reports of 33 cases which occurred in an outbreak in Port Elizabeth, between April 16 and July 30, 1901, which show the part played by rats in the dissemination of the disease. He found that at places where infected rats were found, cases of plague followed, and at places without infected rats only 4 cases occurred. In these cases the origin of infection could not be traced. There was no evidence of man-to-man infection. The author points out that plague is probably communicated to man by some intermediary agent which can pass from rats to man without actual contact between the two, and this is possible in warm dead rats, but not in cold ones. He points out that there is good reason for believing that this intermediary host is the rat flea, for this insect leaves the bodies of the dead animals as soon as they become cold. The plague microbe has been found in the bodies of rat fleas. He also thinks that the transmission of plague from man to man is probably brought about by the human flea. He concludes his article with a discussion as to the methods most suitable for the destruction of rats. [F. J. K.]

6.—Knox reports a case illustrating the local and pulmonary effects of abdominal pressure. The case occurred in a female, 21 years of age, who consulted the author in October, 1901, complaining of palpitation, shortness of breath, pallor and a feeling of weight on the left side. Anemia and emaciation were present. The diagnosis of a pleural effusion was made, and the patient was ordered rest and given potassium iodide and tonics internally with

counterirritation over the left base. She recovered sufficiently to go to the country for 6 weeks and then returned to the hospital. Dulness on percussion existed at the left base posteriorly with diminished vocal resonance. The heart action was normal. The abdomen was distended and, the patient sitting, gave on percussion dulness nearly up to the umbilicus. There was evidently a considerable quantity of free fluid in the peritoneal cavity. Strapping of the abdomen caused gradual absorption. The author regards the case as one of tuberculous origin. He remarks that the strapping helped to restore the power of the lymphatics and to give the necessary support to enable them to deal with an abnormal accumulation of fluid; in other words, the abdominal muscles required extra support to enable them to keep up sufficient pressure upon the abdominal viscera in order to restore the temporary loss of functional power caused by the fluid in the cavity, and pressure upon the diaphragm was beneficial in restoring the respiratory function of the lungs damaged by the fluid in the pleural cavity. [F. J. K.]

7.—Maidlow reports a case of *anencephalus*. The mother of this fetal malformation was a well-developed primipara, aged 25 years, who had married her maternal cousin on April 25, 1901. [F. J. K.]

MEDICAL RECORD.

October 25, 1902.

1. The Urine from Each Kidney. FRED. C. VALENTINE.
2. The Most Frequent Form of Vaginal Hernia; Its Etiology and Treatment.

SAMUEL WYLLIS BANDLER.

3. On the Eradication of Yellow Fever in Havana.

EDMOND SOUCHON.

4. Some Early Stages of the Disease of Inebriety.

T. D. CROTHERS.

5. The X-Ray. MILTON FRANKLIN.

6. Infectious Bronchopneumonia. A Report of Six Recent Cases. D. W. WYNKOOP.

1.—Valentine describes an instrument which at present seems to overcome all the difficulties that ordinarily attend efforts to obtain the urines separately from each kidney. The instrument in its present form is due to Fernand Cathelin, of the Necker Hospital, Paris. Cuts of the instrument are given together with a full explanation of the method of its employment. [T. L. C.]

2.—Bandler discusses the most frequent form of vaginal hernia; its etiology and treatment. There may exist: (1) Cystocele with a normally situated uterus, (2) cystocele with a hysteroptosis, (3) cystocele with a retrodeviated uterus, (4) cystocele with a hysteroptosis plus a retrodeviation of the uterus. In addition we may have cystocele with or without rectocele. The class prolapsus vaginæ is a broad one, from which Bandler excludes the following forms of vaginal hernia: (1) The most frequent, involving the lower half of the anterior vaginal wall, the so-called prolapsus vaginæ anterioris, or, better and truly speaking in most cases, *cystocele*. (2) Prolapse of the upper third of the anterior vaginal wall through descent of the intestine (rare.) It is only possible when the union between cervix and bladder has been disturbed. This condition constitutes an *enterocele vaginæ anterioris*. (3) Prolapse of the upper portion of the posterior vaginal wall through a descent of the intestines, or *enterocele vaginæ posterioris*. Here the uterus and the lower half of the vagina are not affected as regards their position. The upper part of the posterior vaginal wall, however, is influenced by the intestines in the sac of Douglas. (4) A so-called prolapse or dilatation of the lower half of the posterior vaginal wall containing a diverticle of the rectum—a *rectocele*. Speaking of treatment of these conditions the writer states that even the shortening of the round ligament for a ventral fixation a cystocele frequently recurs after anterior

colporrhaphy. Two factors may be stated as a certainty: (1) The cure of a retroflexion is not necessary to a cure of the cystocele; (2) treatment of the posterior wall is not necessary to correct the lesion in the anterior wall. He mentions the work of Theilhaber and explains the good results that followed the methods of this operator. [T. L. C.]

3.—Souchon, in an article discussing the eradication of yellow fever in Havana, reasserts his thorough belief in the transmission of yellow fever by mosquitoes, but believes that there is some other means of transmission. Holding this opinion he states that the Louisiana State Board of Health cannot think of changing the present quarantine regulations. [T. L. C.]

4.—Crothers concludes a paper on some early stages of inebriety with the following summary: (1) The study of inebriety reveals a well-marked disease, passing through various stages, traceable by many and complex signs and symptoms. (2) The incipient stage seen before spirits are used is marked by dietetic delusions and other symptoms of nerve and brain irritability, all of which seem to depend on heredity or some obscure injury to the nerve and brain centers. (3) A group of symptoms can be found in most cases that may be termed pathognomonic, and will be seen in the later stages fully developed. (4) These early symptoms appear after the first toxic use of alcohol, and in some cases go on to full development, or are held in abeyance by some unknown force. (5) Practically, the recognition and study of this stage opens up a field of prevention and cure that will attract great attention at an early day. [T. L. C.]

MEDICAL NEWS.

October 25, 1902. (Vol. 81, No. 17.)

1. Note on the Newly-Recognized Sugar-Controlling Function of the Suprarenal Glands. C. A. HERTER.
2. Remarks on Intrathoracic Pressure, with the Illustration of the Author's Method of Lung Immobilization. CHARLES DENISON.
3. Strictures of the Male Urethra. ROBERT H. GREENE.
4. Comparative Toxicity of Ammonium Compounds, a Study in Auto-Intoxication. B. K. RACHFORD and W. H. CRANE.
5. Acute and Chronic Tuberculous Phthisis, with Cases. J. CARDEEN COOPER.

1.—Herter's observations with adrenalin suggest to him that the organism possesses a hitherto undiscovered mechanism by which sugar metabolism is largely controlled under physiological conditions. It seems to him that, if relatively large applications of adrenalin to the pancreas call forth temporary glycosuria, slighter influences of the same sort may serve as a continuous but variable physiological stimulus to the pancreas to call forth the sugar that is constantly required by all cells in which metabolism is active. It seems natural that the suprarenal gland should be the means by which this controlling influence is exerted, since it may be assumed that this organ is constantly producing and liberating a secretion containing a substance allied to adrenalin. [T. M. T.]

2.—Denison states that the life and healthfulness of a lung depend upon its use, and the curtailment of its function in any part should be looked upon as a compromise, supplemented, if possible, by an equivalent increased use of the unaffected portion. The chief consideration then for chest immobilization is that it can be unilaterally applied, and that the other lung can do the supplementary work thereby required of it. If both lungs are chronically affected, or nearly so, we are correspondingly handicapped; but even then the author thinks so much of the method of unilateral chest immobilization that he would use it in localized hemorrhagic infarction, pleurisy and excessive softening. In pulmonary hemorrhage he has found it very serviceable. In the effort to limit cavity formation it has

been quite as useful in performing its chief function, which is to limit fibrosis to the region needing it and to the extent necessary. [T. M. T.]

3.—Greene's statements are: (1) Careful treatment of chronic urethritis will prevent the formation of stricture; (2) true stricture is of slow growth and can generally be best treated by a prolonged passage of sounds and the proper treatment of any complication co-existent with it; (3) cutting operations are almost never required in strictures which have not been previously incised. Strictures once incised, unless kept open, are liable to require further incision; (4) an incision being necessary, is better to do an external urethrotomy combined with an internal urethrotomy if required. [T. M. T.]

4.—Rachford and Crane's experiments show that the amount of ammonia which may be excreted in combination with pathological acids is sometimes very great, as much as 8 or 10 gm. may be the enormous daily output in such severe acid intoxications as are found in diabetic coma. From the above statement the author believes that symptoms of systemic intoxication which result from the presence of acids in the body are for the most part due to the poisonous action of ammonium compounds of these acids, rather than to any marked decrease in the alkalinity of the blood, which, under rare conditions, these acids may cause. In acid intoxication, therefore, we may diminish the amount of ammonia excreted in combination with acids by administering the salts of sodium and potassium. The sodium and potassium under these conditions, when introduced from without, or when from any cause they occur in excess in the body media, serve to protect the ammonia from the acids and to allow it to be converted as it normally is into urea, and thus diminish the amount of ammonium compounds in the blood and other body media. The five bases which under varying circumstances may be used to neutralize the acids in the body are ammonium, sodium, potassium, magnesium and calcium.

[T. M. T.]

5.—Cooper says that the disease is both hereditary and incurable; that the tubercle bacilli reach the human subject: (1) Through the channels of hereditary transmission, principally by the blood and placental tissue of the mother; (2) by transmission through inoculation, which is not a very fruitful source of tuberculosis; (3) through infection by inhalation, as in breathing dust laden with tubercle bacilli, and infection by milk or meat obtained from animals suffering from tuberculosis. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

October 25, 1902.

1. Disease of the Gall-Bladder. JOHN B. DEEVER.
2. Experimental Gastritis; Early Pathological Changes. FENTON B. TURCK.
3. The Treatment of the Insane in Private Practice. F. SAVARY PEARCE.
4. The Results of Examinations of the Blood for the Widal Reaction. JOHN S. BILLINGS, JR.
5. The Prevention of Smallpox. M. L. HUGHES.

1.—Diseases of the gall-bladder may be inflammatory affections, cholelithiasis or specific affections, such as carcinoma and tuberculosis. The inflammatory affections may be catarrhal, suppurative, ulcerative, phlegmonous, gangrenous or obliterative. Some of these cases of inflammatory cholecystitis greatly resemble appendicitis. Cholelithiasis is the commonest and most important disease affecting the gall-bladder. The specific affections are rare. After describing the symptoms, Deever states that in all cases, except when catarrhal inflammation exists, cholecystotomy is advised as soon as the diagnosis is made. Deever also considers this the best operation for pericholecystitis with adhesions. Hydrops of the gall-bladder usually requires aspiration and cholecystectomy. Rest, moist heat and laxatives are advised for catarrhal conditions. Massage is always dangerous. [M. O.]

2.—After detailing his experiments upon dogs, Turck

noted an exudate on the mucosa early in experimental gastritis, though the surface epithelium is not destroyed in proportion to the marked changes deeper in the mucosa. Later this exudate becomes changed, and bacteria develop on its surface. He also noticed the chemotactic effect of mustard upon the gastric mucosa of dogs. [M. O.]

3.—In an article on the treatment of the insane in private practice, Pearce concludes that treatment should be instituted as early as possible in acute insanity. Those of hybrid types furnish the most hopeful diagnosis and should therefore be kept out of the asylum as long as possible, especially when hysteria is present. [M. O.]

4.—Billings has examined 2702 specimens of blood from patients suspected of having typhoid fever. Full reports were only obtained in 1908 cases. Of these 304 gave a positive Widal reaction. In 131 instances in which the result of the examination was doubtful, and in 1362 in which it was negative, the cases proved not to be typhoid fever. Out of 164 cases showing a doubtful reaction, 33 were known to have had typhoid fever. The majority of the cases occurred in the autumn and winter. In only one instance was the malarial parasite noticed with a positive Widal reaction. [M. O.]

5.—Hughes reiterates the importance of vaccination in the prevention of smallpox, together with isolation of the patient, disinfection, etc. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

October 23, 1902. (Vol. CXLVII, No. 17.)

The Teaching of Surgery. HERBERT L. BURRELL.
Deciduoma Malignum; Report of a Case.

J. C. HUBBARD.

1.—Will be abstracted when concluded.

2.—Hubbard reports a case of deciduoma malignum and says that the treatment is most generally radical, and anything short of that after the diagnosis is once made is not justifiable. The fact that such a form of tumor does exist makes it absolutely necessary to submit to a pathologist any curettings from the uterus when there is the least doubt of a diagnosis, for the possibility of a cure depends on an early recognition. A hysterectomy offers the only hope. Whether it shall be by the vaginal or abdominal route must depend on the choice of the operator and the peculiarities of the individual case. Nothing less radical offers the least hope of cure and is only wasting valuable time. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

October 25, 1902.

Under What Circumstances is it Advisable to Remove the Vermiform Appendix When the Abdomen is Opened for Other Reasons? HOWARD A. KELLY.

Drainage of Extravesical and Extraperitoneal Suppurations of the Male Pelvis. EUGENE FULLER.

External Urethrotomy from the Standpoint of the General Surgeon. JOHN C. MUNRO.

Traumatic Rupture of the Abdominal Viscera Without External Signs of Injury. DANIEL N. EISENDRATH.
Principles Controlling Operative Interference in Heterophoria. E. J. GARDINER.

The Principles Controlling the Nonoperative Interference in Heterophoria. S. C. AYRES.

Appendicitis from a Physician's Standpoint.

JAMES TYSON.

The Surgical Relations of Traumatism of the Peripheral Nerves. HAROLD N. MOYER.

The Occurrence of Gout in the United States, with an Analysis of Thirty-Six Cases.

THOMAS B. FUTCHER.

Trichophytosis. J. B. KESSLER.

1.—Kelly discusses the advisability of removing the appendix when the abdomen is opened for other reasons and as communicated with a number of American surgeons to learn their practice. He reaches the following conclusions: (1) The appendix should always be examined and its condition noted whenever the abdominal cavity is opened for any reason, provided no additional risk is in-

involved. (2) The opinion of the majority of surgeons in this country is against the removal of a perfectly healthy appendix, 44 to 26 being the proportion shown in his investigation. (3) The opinion of the large majority of surgeons is in favor of removing an appendix which is even slightly adherent to other structures, 60 to 7 being the proportion shown in his investigation. (4) The fact that the appendix is normal in appearance does not prove that it contains no fecal concretions, for he has found them in a number of instances. Their presence is sufficient reason for the removal of an apparently healthy appendix. (5) After removal of the right ovary the stump should always be covered with peritoneum in order to prevent the risk of adhesion to the appendix. A long and free appendix should invariably be removed. [J. H. G.]

2.—See Philadelphia Medical Journal, June 21, 1902, page 1102.

3.—See Philadelphia Medical Journal, June 21, 1902, page 1102.

4.—See Philadelphia Medical Journal, June 21, 1902, page 1103.

5.—Gardiner contributes an article on principles controlling operative interference in heterophoria. He discusses the importance of securing the patient's history, the necessity of determining refractive errors and the complications of the muscular anomalies. He has found the graduated tenotomy best suited for the different forms of heterophoria. In his summary he makes the following suggestions: Study your patient thoroughly. Eliminate all extraneous causes. Correct ametropia and anisometropia. It may be all that is required. If not, strengthen the weaker muscle. Give these methods a fair trial. If in doubt, *do not operate*. If you decide to operate use your scissors with care and with brains. [F. J. K.]

6.—Ayres, in discussing the principles controlling nonoperative interference in heterophoria, confines his remarks in the main to esophoria and exophoria with especial reference to the latter. In this article are included reports of a number of cases, and the author contends that esophoria is manifest in children, in enfeebled health and in persons of maturer years. It occurs in association with myopia and hyperopia and astigmatism. The value of prism exercise in esophoria he contends is one of the most important factors in restoring normal muscle balance. He is convinced of the value of the constant use of weak prisms, base out, in these cases, although the prism cannot be relied upon in all cases. The condition of the health must be carefully looked into. The exophorics are entitled to equal consideration in regard to careful and prolonged treatment because by delay as brilliant and satisfactory results can be secured. He remarks that esophoria is active and exophoria passive; the one requires relaxation, the other stimulation. In esophoria convergence and accommodation act together in excess. In exophoria convergence and accommodation are separated by a hiatus which is supplied by nervous impulse. The innervation of the eye muscles should be considered. [F. J. K.]

7.—See Philadelphia Medical Journal, June 21, 1902, page 1097.

8.—Moyer deals with the surgical relations of traumatism of the peripheral nerves and reaches the following conclusions: (1) Section or laceration of a nerve, if of some size, is usually recognized at the first examination. (2) Contusions of nerves are common, the symptoms often being latent until neuritis develops; the latter may be delayed some days. (3) Contusion of a nerve may complicate any fracture or dislocation, but is especially frequent in dislocations of the shoulder. (4) Injury to the circumflex nerve merits special mention because of its frequency, the ease with which it is overlooked and its serious consequences. (5) The reflex paralysis after joint injury is probably due to a traumatic neuritis. (6) The management of the joint, tendon and muscular complications comprises in the main the treatment of traumatic neuritis. [J. H. G.]

9.—See Philadelphia Medical Journal, June 21, 1902, page 1097.

AMERICAN MEDICINE.

1. Report of Two Cases of Gastrectomy, with Remarks. ALBERT VANDER VEER.
2. Arthritis Deformans. E. H. BRADFORD.
3. The Concentration of the Urine Constituents as an Aid to Diagnosis. TORALD SOLLMANN.
4. Operative Treatment of Hip Joint Disease. JAMES K. YOUNG.
5. Report of a Case of Blastomycosis of the Skin. ISADORE DYER.
6. Auto-intoxication in Relation to Mental and Nervous Diseases. JAY G. ROBERTS.

3.—Sollmann presents a study of the concentration of the urine constituents as an aid to diagnosis. This paper is an exposition of the principles and the applicability of the methods of cryoscopy with a brief survey of the literature of the subject. [T. L. C.]

4.—Young discusses the operative treatment of hip joint disease. He believes that in many instances operation may be avoided by early and efficient conservative treatment. When operative measures are adopted, they should be thorough and definite and should be performed as quickly as consistent with safety. Under the operative measures for relief or deformity are included: (1) Multiple myotomy and tenotomy, (2) forcible straightening and (3) osteotomy. He describes the applicability of these procedures. After osteotomy for correction motion cannot be expected, as the limb is ankylosed in the corrected position. In cases of double ankylosis of the hips, after osteotomies have been performed, it is best to set the limb in an extended position so that the patient may walk with crutches. Young describes the following operative measures for arthritis: (1) Aspiration, (2) incision (simple), (3) erosion (Willard), (4) excision, (5) amputation. [T. L. C.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

August 26, 1902. (No. 34.)

1. Contribution to the Knowledge of the Amount of Precipitation and the Albuminous Bodies of the Blood Serum. M. ASCOLI.
2. An Albuminous Body Precipitated by Acetic Acid Occurring in Exudates and Urine. R. STAEHELIN.
3. The Early Diagnosis of Congenital Luxation and Subluxation of the Hip. P. BADE.
4. The Structure of the Negro Foot. M. HERZ.
5. Suggestions for the Easy Inflation of Air Cushions. LANDGRAF.
6. The Relations of the Movements of the Body, the Body-Heat and Albumosuria to One Another in the Course of Phthisis. G. SCHROEDER.
7. Contribution to the Knowledge of the Origin of Pulmonary Tuberculosis. G. SCHMORL.
8. The Influence of Chronic Pulmonary Tuberculosis Upon the Mind and Nerves. H. ENGEL.

1.—Ascoli has attempted to investigate the reactions of serum from animals rendered immune to the serum of another animal, with the serum of animals other than that to which they have been rendered immune. Thus, for example, he argues that if the serum of a rabbit that has been rendered immune to horse serum and gives with the horse serum a considerable precipitate, and gives with guinea-pig serum a slight precipitate, then there are two possibilities: Either the immune serum contains various portions of precipitins that cause a precipitate in both serums, or there is only a single precipitin, and the guinea-pig serum contains less precipitable substances. The method he devised for studying these questions was to separate the englobulin from horse serum by dialysis. This was then filtered off, washed and part of it dissolved in physiological salt solution, another part dried *in vacuo*. Pseudoglobulin was also prepared according to Pick's method, and the different varieties of pseudoglobulin separated by fractional precipitation. Animals were then immunized to these various substances. The results were that in those cases in which the immune serums acted upon the homologous fractions—

that is the special preparation that had been used for immunizing the animal—the further addition of the other fractions or of full serum did not produce a precipitate with this immune serum. If, however, before the homologous substance was added to the immune serum for the purpose of causing a precipitation, nonhomologous materials were added, a precipitation occurred, but, with the addition of the homologous fraction or of the entire serum, produced an additional reaction. It, therefore, appears that by means of the biological reaction we are able to demonstrate qualitative differences in the englobulins and pseudoglobulins, and, therefore, serum albumin is not a single body, but contains a series of constituents which by saturation with ammonium sulphate can be precipitated separately. A further conclusion is that, if an animal is immunized to the entire serum of another animal, its serum must contain a number of different precipitins. A further series of experiments showed that there are quantitative and qualitative differences in the various precipitins. [J. S.]

2.—Staehelin has undertaken an investigation of the albuminous substances that occur in exudates that are precipitated by acetic acid, for the purpose of distinguishing between exudates and transudates. As material he had the pleural exudate from several patients, the peritoneal exudate from 2 suffering from tuberculous peritonitis, and one suffering from ascites. After precipitation it is difficult to filter the liquid, and therefore Staehelin adds alcohol, filters, dissolves the precipitate in water and re-precipitates with acetic acid. He obtained from 0.2 to 1.4 gm. per liter. The substance gives the biuret, Millon's and the xanthoproteic reaction. There is also a strong furfural reaction, and there is a positive reaction with easily decomposed sulphur. It is not precipitated by boiling in a neutral solution, is not precipitated by dialysis, is precipitated in partial saturation by ammonium sulphate, and by complete saturation by ammonium sulphate. It is soluble in an excess of acetic acid. It is also precipitated during digestion with pepsin in the presence of hydrochloric acid. This precipitate contains phosphorus, although that element cannot be detected in the original body. This substance is certainly not nucleo-albumin. It resembles globulins more closely than mucins. In certain pathological urines there is also a substance precipitated by acetic acid that closely resembles that found in exudates, and the same thing has been found in the serum from blisters. [J. S.]

3.—Bade believes that a valuable symptom of congenital subluxation and luxation of the hip is the character of the folds of skin on the thigh. The chief point is that the adductor folds seen in the inguinal region do not terminate opposite each other. He reports a case in which it was possible to make a diagnosis by this symptom. [J. S.]

4.—Herz combats the idea that negroes are commonly flat-footed. The characteristics are that the foot is long and very broad. Not infrequently the second toe is longer than the great toe, resembling the classic foot of antiquity. Among the other characteristics of the negro foot is the pronounced development of the muscles, which sometimes gives rise to an impression resembling flat-foot. The calcaneum is also much longer in negroes, and as a result the calf is less developed, because it forms a more favorably acting lever. [J. S.]

5.—Landgraf suggests that air cushions be provided with a valve such as occurs in pneumatic tires, and then inflated with a bicycle pump. [J. S.]

6.—Schröder continues the report of his investigations upon the occurrence of albumosuria in fever. He believes, as a result of these studies, that we must accept that the regular increase in temperature which occurs in persons not suffering from tuberculosis, after bodily activity, is not pathognomonic of tuberculosis, but rather represents a local hyperemia of the rectum. It must not be considered even

as fever. For the purpose of measuring temperature the mouth is probably much more accurate than the rectum.

[J. S.]

7.—Schmorl continues his criticism of Ribbert's theory that pulmonary consumption is practically always secondary to involvement of the bronchial glands. He criticises the idea that the bacilli are first inspired, then passed through the mucous membranes to the bronchial glands and then carried by the bloodstream to the apices. He has found that ordinarily in the bronchial glands there are few bacilli in the tubercles, and rarely signs of breaking down. Of course, if caseous degeneration of the glands occurs, the conditions are more favorable for infection through the bloodcurrent. In 20 cases in which he investigated the bronchial glands carefully, he found that in 12 tuberculous changes were certainly not older than those in the lungs. It is very rarely the case that persons with general miliary tuberculosis have a general infection through the bloodstream shortly before they die. Schmorl is able, however, to report 15 instances in which he made autopsies on such subjects. He believes that the results of his investigations with Birch-Hirschfeld showed that, as a rule, tuberculous infection occurs in the medium and small bronchi, although unquestionably cases do occur in which infection takes place first in the bronchial glands. [J. S.]

3.—Among the nervous symptoms of tuberculosis are the vasomotor disturbances, the trophic neurotic disturbances, neuralgias, neuritides, neurasthenias, which are very common among these patients, the easy intellectual fatigue, a certain amount of shyness, abnormal sensitiveness, and the various forms of nervous dyspepsia. Hysteria is also not uncommon and possibly accounts for the benefit of certain forms of medication, particularly injections of tuberculin and of hetol. The physical treatment of these patients is, therefore, often of considerable value. The patient should be encouraged and not tyrannically treated. If he is desirous of work or occupation, he should be allowed to have it. If he desires to marry, it is often of great advantage that he be permitted to do so, providing, of course, the case is not too severe, although it is also necessary to instruct both parties in the danger of infection and in the methods of preventing it. However, every case must be considered on its own merits. In cases of neurasthenia all forms of stimulants should be avoided as far as possible. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

September 15, 1902. (39 Jahrgang, No. 37.)

1. Intraglobular Methemoglobinemia in Human Beings. S. TALMA.
2. The Occurrence of Inspiratory Narrowing of the Glottis with Bilateral Posticus Paralysis. DORENDORF.
3. The Hemolytic Peculiarities of Organic Extracts. S. KORSCHUN and J. MORGENROTH.
4. The Occurrence and Treatment of Congenital Dislocation of the Hip. JOACHIMSTHAL.

1.—Talma gives the case-histories of 3 patients with intraglobular methemoglobinemia. In one, a man of 41, cyanosis lasted over a year, growing worse from time to time. It was due to the presence of methemoglobin in the blood, as was found by spectroscopical examination. The cause of the production of methemoglobin was probably an endogenous poison, from auto-intoxication. That this was intestinal was shown by the presence of indol and skatol in large quantities in the feces. Methemoglobin was also found in the urine. Similar cases, in men of 29 and 30 years, with intraglobular methemoglobinemia lasting several months, follow. In the last case oxidizing bodies, possessing peculiar reactions, were found in the urine. They are described in detail, as is the technique of both blood and urine examinations. [M. O.]

2.—Dorendorf reports the case-histories of 2 men, aged 23 and 33, with bilateral posticus paralysis, in whom there was marked narrowing of the glottis with inspiration. In one the diagnosis was bulbar paralysis with probable multiple sclerosis; in the other tabes dorsalis. The condition persisted, even after tracheotomy and was due to active contraction of the adductor muscles. [M. O.]

3.—After reviewing the work of Metschnikoff and Tarashevitch, Korschun and Morgenroth state that their experiments show that organic extracts cause the dissolution of the bloodcorpuscles of the species or individual from which they originate. In their experiments upon heating organic extracts, they were unable to find a limit for the thermostability of organic extracts. Only the resulting precipitate contains hemolytic properties, probably in suspension. The hemolysins of the bloodcorpuscles do not act in the way in which those of the serum act. Organic extracts are coctostabile, dissolve in alcohol, are not complex, and are unable to dissolve antibodies. [M. O.]

4.—After describing several anatomical preparations and Röntgograms, Joachimsthal showed that the changes which cause congenital dislocation of the hip are apparent during intra-uterine life. He laid stress upon the importance of Trendelenburg's sign of the condition, noted when the child walks. This is well shown in photographs. This odd gait was simulated by a child with bilateral paralysis of the gluteus medius and minimus after poliomyelitis. In the treatment he prefers the Lorenz bloodless operation, between 2 and 10 years when unilateral; 6 years when bilateral. The technique of the operation and a number of case-histories follow, with photographs. His results were excellent. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

September 4, 1902. (XV. Jahrgang, No. 36.)

1. The Value of Resection of the Cervical Sympathetic Nerve in Glaucoma. KARL HOOR.
2. Postoperative Insanity. ALEXANDER PILCZ.
3. A Clinical Lecture on Esophagoscopy. L. HARMER.

1.—Hoor reports a case of glaucoma of both eyes in a man of 64, upon whom bilateral sclerotomy was performed. After marked improvement, vision in the left eye gradually decreased during the next 20 months. At an interval of 3 weeks the entire cervical sympathetic nerve, including the superior ganglion, was resected, first on the right side, then on the left. Six hours after operation the tension of both eyes was much reduced, and the pupils were contracted. No accidents disturbed the healing of the wounds. Central vision in the left eye improved markedly, though the right eye remained unchanged. The visual field of the left eye, however, became more restricted. The improvement has lasted 3 months since operation. Time will show whether the improvement in vision following resection of the cervical sympathetic will last longer than that following sclerotomy. [M. O.]

2.—Postoperative insanity is most frequently observed following gynecological operations or those upon the eye. But it only occurs rarely. In most cases there is some hereditary psychical tendency. Delirium tremens or senile dementia may occur after operation. Postoperative insanity occurs in women more often than in men, and is very rarely seen in children. Degeneracy predisposes to it. The general condition of the patient, before operation, is an important factor, as is any cause of emotion. Psychoses rarely appear before operation, from fear of the operation. Finally the anesthetic or the antiseptic used may cause insanity by producing an intoxication; or there may be an auto-intoxication. Clinical symptoms vary exceedingly. The prognosis, diagnosis and treatment are the same as though the condition had not followed operation. The entire literature is cited. [M. O.]

3.—Harmer reports the histories of 50 cases in which esophagoscopy was performed, after describing the technique. It was done in 23 cases for foreign bodies, which were found in 13, in 7 with strictures of the esophagus. In 3 cases the esophagus was injured; cancer was found in 11, and cicatricial stricture in 5 cases. In the 8 remain-

ing cases the diagnosis could not positively be made. Esophagoscopy is easy to perform and totally without danger in skilful hands: it is of great value in the diagnosis and treatment of morbid conditions affecting the esophagus. [M. O.]

September 11, 1902. (XV. Jahrgang, No. 37.)

1. The Significance of the Optic Thalamus.
M. PROBST.
2. Three Cases of Birth Palsy Affecting One Arm, with Remarks Upon the Relations Between this Form of Paralysis and Congenital Torticollis.
ARTHUR SCHUELLER.
3. A Case of Traumatic Isolated Luxation of the Metacarpal Bone of the Index Finger.

JULIUS BERDACH and ALOIS HERZOG.

1.—Probst describes in detail the anatomy of the optic thalamus, quoting much from the literature, to show its many functions. Experimental results are not at all conclusive, for the effects of injury and experiments upon the optic thalamus vary greatly, and often furnish contradictory conclusions. For successful results the brain should be cut into a series of sections, and each section should be carefully examined. No doubt remains that the optic thalamus controls manifold functions. It is the main switch-station between the cortex and periphery, transmitting varied sensations and impressions, either centrally or peripherally. [M. O.]

2.—Schüller gives the case-histories of 3 infants with paralysis of the brachial plexus, following manual delivery. In one case, the use of the forceps in the other 2 cases. Photographs of the children accompany the article. All three paralyzes were severe, giving the reactions of degeneration very early. Therefore, the prognosis was unfavorable. Congenital torticollis was found in 2 of the cases, upon the same side on which was the paralysis. This may be a predisposing cause to the occurrence of birth palsy. [M. O.]

3.—Berdach and Herzog report a case of a rather rare condition, isolated complete dislocation of the metacarpal bone of the index finger, in a man of 22, of traumatic origin. Only 11 such cases were found in the literature. When observed soon after dislocation, reduction is not difficult. In old cases it is impossible to reduce the luxation, except by operation. [M. O.]

NEUROLOGISCHES CENTRALBLATT.

March 16. (No. 6.)

1. A Case of Acute Disseminated Myelitis or Encephalomyelitis Following Intoxication with Carbonic Acid Gas, with Termination in Cure. A. PANSKI.
2. Further Communications upon Asthenic Paralysis, with the Result of an Autopsy. S. GOLDFLAM.

1.—Panski reports the case of a coachman, 38 years of age, who went to bed apparently healthy. Thirty-six hours later a neighbor, astonished by the quiet that had persisted in his apartment, knocked at the door. The man's wife responded in a semi-delirious condition, and it was found that her husband was unconscious and her child dead. A diagnosis of CO₂ poisoning was made, and the patient taken to the hospital. In the course of a few days bedsores developed, and there was a pemphigous eruption on various parts of the body. The face was deeply cyanosed. Examination of the nervous system showed some diminution of sensation as far as the waist. There was the typical scanning speech, complicated by dysarthria, and complete incontinence of urine and feces. The tendon reflexes were exaggerated. The patient was confused, slept a great deal and was distinctly apathetic. In the course of 3 months he recovered. Treatment consisted in the administration of potassium iodide, milk diet, and cleanliness. His mind gradually cleared, the gait remained for a time spastic paretic, and he became readily fatigued. Two months later, aside from exaggerated knee jerks, he was practically normal. Panski discusses the nature of this condition, excludes neuritis on account of the spastic condition of the muscles, and the normal

electrical reactions. He concludes his paper with references to all the publications upon carbonic acid poisoning. [J. S.]

2.—Goldflam continues his article upon asthenic paralysis, reporting the history of the fourth case. A woman, 32 years of age, who had an infantile uterus, prominent eyes and a voluminous neck, for the past 5 or 6 years had gradually developed facial hemi-atrophy. Finally she noticed some ptosis of the left eyelid and transient disturbance of speech. She was also slightly melancholic. The urine showed a trace of sugar. Later she had an attack of sore throat without fever, developed disturbance of speech which had a nasal quality, and then regurgitation of liquid through the nose, and difficulty in swallowing. All the movements of the muscles of the face were weak, she became very easily fatigued and had persistent cough. On one occasion she had an attack of severe dyspnea apparently due to feeble muscular action, which was only relieved by artificial respiration. She became more and more prostrated, failed to react to stimulants and finally died. The case is interesting on account of the very rapid course. The interesting preliminary symptom was the ptosis. [J. S.]

April 1, 1902. (No. 7.)

1. Judge and Expert. A. HOCHÉ.
2. Cacodylic Acid Therapeutics. H. SMIDT.
3. The Question of Hysteria: Reply to Nissl's Article: "Hysterical Symptoms of Simple Mental Disturbances." RAECKE.
4. Further Communications Upon Asthenic Paralysis. With Result of an Autopsy. S. GOLDFLAM.

1.—Hoche criticises some recent articles upon the relation of the medical expert to the judge. He does not believe that the opinion of the expert should necessarily be implicitly accepted by the judge. The latter has to weigh it in connection with all the other testimony. He believes that medical experts should confine all their opinions strictly to the medical factors in the case, and that they should endeavor to be as clear as possible. The reform of medical expert-testimony should begin with the realization of the fact that in many cases the fault is on the physician's side. [J. S.]

2.—Smidt gives a brief review of the literature upon the action of cacodylic acid. He quotes with approval the opinion of de Vincenti, that hypodermic administration of the acid is simple, safe, and may be regarded in cases of physical and psychological asthenia as a neurotonic cure, although results are not extraordinary. This method of administration does not produce gastric or intestinal disorders. [J. S.]

3.—Raecke contributes a controversial article upon the subject of hysteria. He quotes with approval the opinion of Kleppen who believes that conditions of diminished intelligence associated with hysterical stigmata are to be regarded hysterical, and disapproves of Nissl's statement that symptoms are only to be regarded hysterical when hysteria has been proven to exist. In fact, Raecke believes that the diagnosis of hysteria can only be made symptomatologically. [J. S.]

4.—Goldflam continues his paper with the report of a fifth case. A woman, 30 years of age, at the age of 23 had bilateral ptosis and general weakness. She gradually improved; at the age of 27 she married and had a child. At the end of lactation she had a nervous attack followed by bilateral ptosis, diplopia, difficulty in speaking and swallowing. She gradually grew worse, the symptoms being more severe in the evening than in the morning. The movements of the muscles of the face became weak, the limbs became fatigued upon exercise, the urine was normal, and the myasthenic reaction was distinct. From time to time the patient had attacks of dyspnea, although there

were periods in which all the symptoms improved. The tendon reflexes became diminished upon repeated testing.

[J. S.]

April 16, 1902. (No. 8.)

1. Brief Communication upon A New Method of Staining the Central Nervous System.

H. von SCHRÖTTER.

2. A Case of Auto Sinus Thrombosis. GOOD.

3. Further Communications Upon Asthenic Paralysis, with Results of an Autopsy. S. GOLDFLAM.

1.—von Schrötter recommends staining sections of the spinal cord in a one or 2% solution of alizarin. They are to be left in this solution for 24 hours and may be warmed without injury. At the end of this time they are differentiated for $\frac{1}{2}$ to one minute in tap water, mounted and the following results may be observed. Connective tissue is stained brown-violet or violet, the myelin sheaths yellow, the nuclei brown or brown-violet but with very clear and distinct structure. The degenerated parts can be recognized from the normal parts microscopically. Combinations of other colors are, therefore, entirely unnecessary, although alizarin solutions are useful for counterstaining after the Pal stain. This stain is not quite as satisfactory when there is much connective tissue or muscle. Carefully employed, it stains the glia, and particularly the elastica in the bloodvessels. von Schrötter is now trying various modifications of this stain, among others a 5% solution of sodium sulphate and alizarin to which a few drops of a 5% solution of oxalic acid have been added, until the solution is a yellow color. The sections are allowed to remain for 2 or 3 hours and then washed in a 3% soda solution until they are distinctly differentiated. The myelin sheaths are bright red, the other tissues are not stained. This method is of equal value for old or fresh tissue.

[J. S.]

2.—Good reports the case of an unmarried woman, 43 years of age, congenitally weak-minded. At the age of 11 years she had had one or 2 attacks of convulsions. She had been a servant, but finally was brought to the insane asylum on account of her shrewishness. She had delusions of persecution, and gradually increased in weight until she became extremely obese. Suddenly she had 2 epileptic attacks and became blind without other symptoms, excepting headache. The epileptic attacks were frequently repeated, left hemiparesis developed and typical paraphasia, and finally difficulty in respiration, venous congestion of the face and neck, and later death. At the autopsy a freshly adherent red thrombus was found in the longitudinal sinus extending from its right extremity backward. The right transverse sinus also contained a thrombus, and there was one in the lower lobe of the right lung. There was some pachymeningitis hemorrhagica. The interesting feature of the case is the difficulty in diagnosis. Other conditions that might have caused the symptoms were disturbance in the arterial circulation of the brain, hemorrhage into the occipital lobes, acute hemorrhagic encephalitis, superior hemorrhagic polyencephalitis, brain abscess, typhoid fever, uremia and hysteria, and perhaps hemorrhage into a basal tumor. Against encephalitis the amaurosis appears to have been an important symptom. The absence of papillitis was against brain tumor. All other symptoms of meningitis were absent and disturbances in the circulation are usually apoplecticiform in onset. There are no etiological factors that can be determined in favor of thrombosis of the sinus, and Good believes that it is impossible correctly to diagnose this form of disease. [J. S.]

3.—Goldflam gives the notes of the sixth case of asthenic paralysis. A child, 4 years and 9 months old, had, 11 months previously, developed ptosis. This disappeared, and he remained well for 9 months. He then became quiet, there was some disturbance in the movements of the muscles of the face; food and saliva flowed from the mouth,

and there was disturbance of speech. Later there was regurgitation of food through the nose. Examination showed, however, that there was no paralysis of the soft palate. The symptoms were always worse in the evening. There was a partial myasthenic reaction. The patient showed very marked neuropathic heredity. [J. S.]

THE JOURNAL OF NERVOUS AND MENTAL DISEASE.

August, 1902. (Vol. 29, No. 8.)

1. Poliomyelitis in the Adult. E. W. TAYOR.
2. Epilepsy in Its Relation to Crime.

WILLIAM P. SPRATLING.

1.—Taylor concludes in his article: (1) That adult poliomyelitis is a well-marked clinical affection, characterized by initial fever, rapid onset of usually extensive paralyzes, motor in type, with a tendency toward recovery, though often resulting fatally from respiratory paralysis; (2) that the disease has frequently been confused with multiple neuritis and so-called Landry's paralysis; (3) that its anatomical basis is a primary inflammation in the distribution of the ventral arteries of the cord, leading to a destruction of nerve cells; (4) that this inflammation is rarely sharply limited to the ventral horns, but extends into the dorsal gray matter, the surrounding white matter and at times into the medulla oblongata; (5) that there is no sharp line to be drawn between these lesions and the still more extensive ones giving rise to totally different clinical pictures, e. g., encephalitis, poli-encephalitis, poli-encephalomyelitis; (6) that, therefore, anatomically the disease is much less sharply characterized than it is clinically; (7) that its final place must be determined by a study of its cause or causes, as related to various other degenerations and inflammations of the nervous system; (8) that, from the practical point of view, it is well to consider those cases poliomyelitis which show a flaccid atrophic paralysis of sudden onset, with definite anatomical changes limited to the ventral horns of the cord and their immediate vicinity [T. M. T.]

NORDISKT MEDICINSKT ARKIV.

1902. (Afd. I, No. 2.)

6. Otogenic Pyemia. E. SCHMIEGELOW.
7. A Method of Performing the Radical Operation for Femoral Hernia. H. von BONSDORFF.
8. Supramastoid Pneumatocele of the Skull. H. STROEM.
9. Intra-abdominal Hernia Through an Opening in the Transverse Mesocolon. J. H. AKERMAN.
10. A Case of Accessory Thyroid at the Base of the Tongue, Treated by Transhyoid Pharyngotomy. T. LUNDING SMITH.
11. The Question of the Placental Insertion of the Umbilical Cord. ELIS ESSEN-MOELLER.

6.—Will be abstracted when concluded.

7.—von Bonsdorff describes his method of performing the radical operation upon ordinary femoral hernia in women, an operation which he has successfully performed on 20 patients in the past 5 years. After replacing the intestines, as in other hernia operations, lymphglands and fat are removed, leaving the fascia pectinea and the crural vessels visible. Poupart's ligament is then divided, the incision being continued upward, cutting the round ligament also. This triangular flap is brought down and attached to the fascia and ramus of the pubis, the sutures including the periosteum. This will completely close the femoral opening. The details of his technique follow.

[M. O.]

8.—Ström reports one of those rare cases of pneumatocele of the skull, the air entering the tumor from the mastoid cells. A man of 19 had left otitis media first when 11 years old. Ear symptoms persisted on that side, with swelling of the left supramastoid region and loss of memory. The swelling was painless and gave tympany on percussion. The thin bony wall, on incision, showed stalactitic formations covering the lower part of the parietal, the squamous portion of the temporal and the greater wing of the sphenoid bones. This extended to the zygomatic arch and mastoid process. There were no traces of the normal sutures. The cavities were directly under the periosteum.

The superfluous bone was chiseled off, and drainage was left in place. Complete recovery followed. The swelling was due to air entering between the bone and pericranium, disturbing normal bone production. The air undoubtedly came from the middle ear. [M. O.]

9.—Akerman reports a case of intra-abdominal hernia through an opening in the transverse mesocolon, in a woman of 40, on whom gastro-enterostomy was successfully performed. She recovered rapidly. Symptoms had existed for 25 years, resembling gastric ulcer or cancer. Operation alone permitted a correct diagnosis. The history of a somewhat similar case, with a very long mesentery, occurring in a boy of 17, follows, with a full review of the literature. The opening in the mesocolon was probably the result of atrophy. His first case is unique. [M. O.]

10.—Smith reports a case of an accessory thyroid gland at the base of the tongue in a woman of 48, removed by transhyoid pharyngotomy. Permanent recovery resulted. This makes the twentieth case reported since 1869. The patients were women in all cases except one. Eight cases occurred between 11 and 20 years of age. Symptoms are relatively few. The diagnosis is difficult, while the only treatment is extirpation. The different operations performed for removing an accessory thyroid gland are given. [M. O.]

11.—As the result of careful examination, Essen-Möller found that the umbilical cord is, in most cases at term, inserted into the placenta excentrically, central insertion at this time being a rare occurrence. It is impossible to show any relation between the insertion of the umbilical cord and the height of the placenta. Besides, in excentric insertion, the umbilical cord approaches the upper or lateral edge of the placenta as often as it does the lower border. On the other hand, central insertion is the rule in younger placentas. His material consisted of 50 cases which are fully described. The etiology of the condition is discussed. [M. O.]

MEDICINSKOIE OBOZRENIE.

1902. (Vol. LVII, No. 7.)

1. On the Question of Feeding Infants on their Mother's Milk. I. K. STRZHELBITSKI.
2. On Cancer of the Pancreas. V. P. BAZSHENOFF.
3. The Physiological and Therapeutic Effect of Sidonal in Gout. A. I. ILINSKI.

1.—Strzelbitski investigated the causes of infant mortality, within the first year of life, in the city of Tul. His statistical material embraces: (1) 866 peasant-women; (2) 1000 city-women of the working class; (3) 75 jewesses, and (4) 460 intelligent women. To the first, 3,942 children were born, of whom 1,933 died, and of that number 62.1% died during the first year. The second gave birth to 4,328 children, of whom 1,764 died, and of that number 58.1% died during the first year. The third gave birth to 383 children, of whom 101 died, and of that number 51.2% died during the first year. The fourth gave birth to 1,865 children, of whom 536 died, and of that number 50% died during the first year. This high mortality rate among infants the author ascribes mainly to artificial feeding. An investigation of the alleged reasons for depriving the infants of their natural food led to the conclusion that in the vast majority of cases the removal of the infants from the breast was unjustifiable. The author's conclusions are: (1) The chief cause for the high infant mortality during the first year of life is to be found in the incorrect feeding and the deprivation of the infants of their mother's milk. The physicians, therefore, should direct their efforts against this evil and sanction artificial feeding only under certain conditions. With this object in view, it is necessary to publish popular bulletins explaining the evil results both to mother and child of artificial feeding. (2) It is desirable that widwives and nurses should be instructed that permission to remove the child from the breast should be given only by the physician and not by them. (3) The most frequent excuse for removing the child from the breast before it is 6 months old, as given by mothers, is "insufficient amount of milk in the breast." Investigation, however, shows that the majority of mothers who complain of lack of milk have no just ground for complaint: at least half of them draw their conclusion from the fact that the child "cries." The only criterion for judging of the effi-

iciency of the supply of milk should be by systematic weighing of the child. (4) One of the chief factors concerned in the secretion of milk is the irritation of the mammary glands produced by the act of sucking. The more thoroughly the child empties the breast the more milk is secreted, and *vice versa*. Normal weaning depends on the gradual removal of the child from the breast. (5) Many cases in which there is an inadequate supply of milk, should be looked upon as instances of lack of exercise of the potential energy of the mammary gland, owing to physical and psychical causes. (6) It is necessary to distinguish permanent from temporary inefficiency of the secretion of milk, the latter being readily remedied. (7) When the lacteal secretion is late in appearing, the hope that it will be ultimately established should not be readily abandoned, and the means employed should not interfere with the natural function of secretion. The child should be applied regularly to the breast, even if no immediate results follow. It should be fed on some substitute, but also applied to the breast before each feeding. (8) The claims of some mothers that the milk "disappeared" from the breast, or that "the child does not take the breast," are groundless. (9) The occurrence of dyspepsia while the child continues to gain in weight should not be a sufficient cause for depriving the child of mother's milk; when the child loses in weight the cause may lie not so much in the bad quality of the milk as in the insufficient quantity. (10) The long list of diseases in the mother, which are supposed to contra-indicate nursing, does not stand any criticism, and needs an early revision to free it from the many time-honored prejudices which form a barrier to the propagation of the necessity of breast-nursing in the interest of the mother, as well as the child, that otherwise perishes prematurely. [A. R.]

2.—Bazshenoff reports a case of cancer of the pancreas in a man of 47. The patient, a neurasthenic, developed, without any apparent cause, pain in the epigastric region, accompanied with progressive emaciation and the development of cachexia. A solid mass was felt in the region of the pancreas. From the symptoms and physical examination a diagnosis of cancer of the pancreas was made and verified on autopsy. The case is of especial interest because of the fact that, notwithstanding the involvement of the entire pancreas, the function of the latter did not cease. The food was digested properly, and the feces showed nothing abnormal. The salol and iodoform tests also failed to show absence of pancreatic digestion. [A. R.]

3.—Ilinski concludes from a study of 4 cases of gout, that sidonal is a harmless and efficient remedy for this affection. Its action depends on its power so to influence metabolism as to bring about a formation of soluble hippuric acid instead of the uric acid, and thus prevent the deposit of the latter. It also brings about a retrogressive metamorphosis of the deposits already formed, facilitating their solution and absorption. [A. R.]

THE DUBLIN JOURNAL OF MEDICAL SCIENCE.

August 1, 1902. (Third Series, No. 368.)

1. A Peculiar Abdominal Tumor. JOHN STEPHEN M'ARDLE.
2. Panhysterectomy for Uterine Myoma. R. J. KINKEAD.
3. Colles's Fracture. JOHN KNOTT.

1.—McArdle describes the tumor which consists of masses of hay. The conical ends of each of the masses were covered with mucus and food debris, while the opposite ends were ragged and macerated. The tail of the smaller tumor extended into the duodenum, and was stained with bile, showing that it must have been hanging in this position for a considerable time. The larger tumor was over 1½ pounds in weight, and the pyloric one was nearly ½ pound—the two weighing exactly 2 pounds immediately after extraction. They measured 16½ inches in length and 3½ inches in breadth. The circumference at its largest point was 10 inches. The reason for the retention of this great mass of hay in the stomach is very easily seen on examining the specimen. The fibers, which were very strong, were not masticated, and, owing to their rigidity, the pylorus resisted their passage. Owing to the movements of the stomach, they were woven together. [T. M. T.]

2.—Kinkead noted that the tumor consisted of 2 roughly spherical portions, one involving the fundus, the other, the larger, involving the cervix, and descending along the vaginal wall for about 2 inches. This latter portion seemed to have taken its origin from the muscular fibers of the vaginal wall and to a small extent from the cervix. The length of the whole mass was $9\frac{1}{4}$ inches, and it weighed 2 pounds $9\frac{1}{2}$ ounces; the width was, through the vaginal portion, $6\frac{1}{4}$ inches, that through the fundal portion being $4\frac{1}{2}$ inches. Microscopical examination showed the structure of both portions to be fibromyoma. [T. M. T.]

THE EDINBURGH MEDICAL JOURNAL.

August, 1902. (Vol. XII. No. 2.)

1. Some Functional Neuroses of the Throat. P. M'BRIDE.
2. On Green and Blue Urine. RALPH STOCKMAN.
3. The Harveian Oration. J. KIRK DUNCANSON.
4. The Causation of the Crescendo Murmur of Mitral Stenosis. D. W. SAMWAYS.
5. The Causal Relation of Cocci to Rheumatism. W. BLAIR BELL.
6. Insects and Cholera. ANDREW MacKAIG.
7. The Nervous Affections of the Heart. G. A. GIBSON.

1.—McBride gives Sir Felix Semon's idea of the pathogenesis of **inspiratory spasm** as follows: He is inclined to assume that it is due to an abnormal irritability of the bulbar, and sometimes even of the cortical, adductor centers; that peripheral stimuli, particularly those through the centripetal fibers of the vagus, which, under normal circumstances, only reach the medulla, producing abductor tonus, and which, on forced respiration, cause contraction of the abductors, in the neurosis under consideration exercise their influence on the bulbar adductor center as well and produce an effect which overbalances the stimulation of the corresponding abductor center. [T. M. T.]

2.—Stockman states that both green and blue urines decolorize rapidly under the action of bacteria, except on the surface which is exposed to air. On shaking up such urine it absorbs oxygen from the air and becomes green in color, a reaction that can be repeated readily. On standing, the blue pigment sometimes increases in amount, leaving the urine practically colorless. In the purely green specimens no color is yielded on shaking with chloroform or amylic alcohol; in the mixed specimens these menstrua dissolve out the blue pigment, leaving the urine a light or deep green color. Ether dissolves out neither the green nor the blue substance. On examination with the spectroscope the blue urine, and the blue solutions in chloroform and amylic alcohol, gives a deep defined band in red, simply obscures the extreme red and violet ends of the spectrum, and if it contains blue pigment gives the dark band in red in addition. On standing, the chloroform and amylic alcohol solutions gradually fade to yellow and lose their characteristic spectrum. [T. M. T.]

4.—Samways believes that the presystolic murmur is produced by blood forced onward from the auricle into the ventricle, even during the systole of the latter, if the murmur be supposed to fall wholly in early ventricular systolic time. It is yet more obviously auricular systolic in origin if the murmur begins before the ventricular systole commences. [T. M. T.]

5.—Bell is convinced that the **acute rheumatic affections** are of microbic origin, and, further, that they are of coccal causation. Also that the source of infection is sometimes obvious, sometimes obscure. He believes that those specially called "rheumatic," as opposed to pyemic suppurating lesions, are produced by a toxin circulating in the blood without an accompanying army of cocci; but that certain of the cocci, e. g. pneumo- and gonococci, do frequently invade the joint and produce symptoms which are no longer purely "rheumatic." From his studies he concludes that rheumatism in all its acute forms is a symptom only of many toxemias and not a clinical entity, chronic rheumatism being a symptom of some perverted clinical change associated with cold, food, nervous changes, etc. [T. M. T.]

THE PRACTITIONER.

August, 1902.

1. Summer Diarrhea of Infants. W. CECIL BOSANQUET.
2. The Public Health Aspect of Summer Diarrhea. ARTHUR NEWSHOLME.
3. The Bacteriology of Epidemic Diarrhea and its Differential Diagnosis from Other Similar Diseases. M. H. GORDON.
4. The Causation of Carcinoma and Sarcoma. (Concluded.) ALEXANDER G. R. FOULERTON.

1.—Bosanquet discusses **summer diarrhea of infants**. He lays down the following principles to serve as a guide to treatment: (1) In the first place it is easier in this disease, as in others, to prevent infection than to cure the patient when it has occurred, and therefore every effort must be made, especially during the summer months, to prevent any opportunity being offered for contracting the disease. (2) Children no less than adults differ widely from one another in their constitutions and idiosyncrasies. There is no "average baby," and no one method of treatment avails in all cases, remedies must be varied according to the peculiarities of different patients, since cases which appear to resemble each other exactly in their symptoms may react quite differently in the severity of the disease as it occurs in different countries, owing to the methods of treatment employed, and those that are successful in England, may be found ineffectual in Australia or the United States. (3) Whether the disease may be due to an extrinsically formed poison which is taken into the alimentary canal or to toxins formed by bacteria within the body, it is equally evident that the first indication is to assist nature in expelling the offending material. The diarrhea is, therefore, not in itself harmful or to be rashly interfered with by drugs. It has been said that it would be no worse practice to seal up an abscess cavity and prevent the escape of the pus than to prevent the peristaltic action of the bowels in gastro-enteritis and thus aid the absorption of toxins from the intestines. (4) Since there is little doubt that the poison or infective organism is conveyed by means of milk, it seems advisable in all severe cases temporarily to suspend the use of this food. But as milk is the natural diet of infants, and it may be remembered that in adults suffering from diarrhea a milk diet is usually insisted upon, it is advisable to resume its administration as soon as possible, with due precautions against further infection. (5) After the offending materials have been expelled from the body, attention must be directed to maintaining the alimentary canal as far as possible in an aseptic condition, and soothing any remaining irritability of the mucous membrane. (6) The prominent clinical phenomena suggest the necessity of supplying, if possible, the fluid lost to the body; of reducing the temperature when it is excessive, supplying heat when the extremities are cold and collapse imminent, and of aiding the failing heart by stimulants. [T. L. C.]

2.—Newsholme presents an extensive contribution on the **public health aspects of summer diarrhea**. Summer diarrhea, in the year 1900, was the registered cause of 3.89 per cent. of the total deaths in England and Wales. In the year 1897, 4.8 per cent. of the total deaths from all causes were caused by it as compared with 7.6 per cent. due to six other chief zymotic diseases (smallpox, measles, diphtheria, scarlet fever, whooping cough, typhus and enteric fevers). Its importance is further indicated by the fact that if during 1881-1890 diarrhea had been excluded from the death returns, the number of survivors at the end of the first year of life out of a million of each sex at birth would have been greater by 14,544 for male, and 12,495 for female children, and the expectation of life or mean future lifetime for every member of a life-table population would be increased by about three-quarters of a year. Newsholme states: (1) That epidemic diarrhea is chiefly a disease of urban life. (2) Epidemic diarrhea as a fatal

disease is a disease of the artisan, and still more of the lower laboring classes to a preponderant extent. (3) Towns which have adopted the water carry system of sewerage have, as a rule, much less diarrhea than those retaining other methods of removal of excrement. (4) Towns with the most perfect method for removing house refuse have the least epidemic diarrhea. (5) The influence of soil is a decided one. Where the dwelling houses of a place have as their foundation solid rock with little or no superincumbent loose material the diarrheal mortality is low notwithstanding many other unfavorable conditions which surround it. On the other hand, a loose soil is a soil on which diarrheal mortality is apt to be high. (6) Given two towns equally placed so far as social and sanitary conditions are concerned their relative diarrheal mortality is proportional to the height of the temperature and the deficiency of rainfall of each town, particularly the temperature and rainfall of the third quarter of the year. The fundamental condition favoring diarrhea is an unclean soil. The particular poison infects the air and is swallowed most commonly with food, especially with milk. [T. L. C.]

3.—Gordon discusses the bacteriology of epidemic diarrhea and its differential diagnosis from other similar diseases. He states that a more precise knowledge of the relative abundance and the attributes of bacteria occurring in the normal intestine would be of great value in enabling us to attach their due relative significance to many of the observations that have been made in cases of diarrhea. Again, the relative abundance of the pathogenic organisms that have been found to occur in the dejecta in diarrhea is a subject about which too little is known. Yet such knowledge might prove of the greatest use. For instance, did we exactly know the nature of the micro-organisms that occur in, say 0.000,000,1 of a gm. of normal feces, and their attributes, we should, on analyzing a similar quantity of fecal material from the intestine in a diseased state, be in a position to see at once what alteration had occurred. By means of the dilution method it is a comparatively simple matter to make accurate observations of this kind, and their value promises to be great, especially if a large number of cases are examined. More exact methods are bound to bring more exact information. A further subject about which accurate information would be welcome is with regard to the exact relationship of various pathogenic members of the great coli-typhoid family. Hitherto most attention has been paid to the *bacillus coli communis* and to the *bacillus typhosus*, but as our knowledge increases the pathogenic importance of other members of this large family of bacteria becomes more plain. Enteritis as a whole seems to be often intimately associated with various members of it, and further knowledge of their relations and characters may result in more accurate perceptions, both of their effects and of the ways to counteract them.

[T. L. C.]

4.—Foulerton discusses the theory of the causation of carcinoma and sarcoma. There are at present 3 schools of thought in connection with the causation of carcinoma. First, those who follow San Felice in believing that the disease is due to infection by a vegetable parasite belonging to the blastomycetes or yeast fungi. Second, those who, like Gaylord and Schuller and von Leyden, see in cancer bodies an animal parasite, some species of protozoon. Third, those who think that neither of the preceding schools have brought forward sufficient evidence to prove their respective theory. Some of the latter believe that, when the crude cause of carcinoma is discovered, it will be found of infectious origin. Others hold the opinion that the solution of the question depends upon the study of the laws which govern and the stimuli which excite the growth of the body tissues generally. The author's conclusions as to the etiology of carcinoma are: (1) That a hypothetical parasite does not in any important way elucidate the pathology of carcinoma. (2) That, so far as

theoretical considerations go, the balance of probabilities is against the theory that carcinoma is caused by a parasite from without. (3) That there is no evidence that any of the parasites which have been described as the cause of carcinoma have any cause or relationship to the disease and (4) that, while we are ignorant as to the immediate causation of cancer, the practically undisputed fact that the epithelial cells, the vicious proliferation of which produces the obvious phenomena of carcinoma, are capable of migration from their normal environment and of self reproduction when in abnormal surroundings, renders any parasitic theory unnecessary. As to the nature of sarcoma we have no such definite histological basis on which we can assign to their true source of origin the tissue cells which form an essential part of the tumor. Of the 2 classes of sarcomata with regard to that in which the secondary foci of new growth are mainly composed of cells which are histologically identical with the cells of the primary tumor, one would feel inclined to assert that the pathological process is not a parasitic one. In the class of cases in which it is difficult to determine whether the cells of the secondary foci are derived directly from the cells of the primary tumor or whether they have independent origin one cannot reasonably exclude a possible parasitic method of causation. Some of the cases of new growth which clinically are diagnosed as sarcoma are in reality cases of infected parasitic disease. It is doubtful, however, whether complete examination would prove that such a condition was caused by a parasite from without. The age incidence of carcinoma is that of an infective parasitic disease; this does not apply to sarcoma which is more particularly a disease of early life. [T. L. C.]

THE UNIVERSITY OF PENNSYLVANIA MEDICAL BULLETIN.

August-September, 1902. (Vol. XV, Nos. 6 and 7.)

1. The Influence of Alcoholic Intoxication upon Certain Factors Concerned in the Phenomenon of Hemolysis. A. C. ABBOTT and D. H. BERGEY.
2. American Surgical Association: President's Address. DE FOREST WILLARD.
3. The Present State of Our Knowledge of Diabetes Mellitus. JAMES TYSON.
4. Congenital Perforations of the Parietal Bones. GEORGE A. PIERSON.
5. Urethral Chancre. HENRY NORRIS and J. M. ASHER.
6. Memoir of Dr. William Fisher Norris. GEORGE C. HARLAN.
7. Diagnosis by Means of the Serum of the Blood; A Critical Study. JOSEPH SAILER.
8. A Sporadic Case of Cerebrospinal Meningitis, with Notes of an Epidemic of the Disease in Philadelphia. T. R. CURRIE.
9. Epithelioma of Axillary Glands Presenting the Clinical Features of Tuberculosis. I. VALENTINE LEVI.

1.—Abbott and Bergey present a paper embodying the results of their investigations upon the relation between alcoholization and increased susceptibility to infection and intoxication through comparative studies of the blood reactions of normal and alcoholized rabbits. They have undertaken to determine: (1) The influence of alcohol administered *per os* upon the complement content of the blood of rabbits; (2) the influence of alcohol similarly administered upon the specific blood reactions of rabbits already artificially immunized against an alien blood; (3) the influence of alcoholization upon the process of artificial immunization by an alien blood. Their results are given in the following conclusions: (1) The daily administration of alcohol *per os* to rabbits brings about a reduction in their circulating blood of the hemolytic complement; (2) slight alterations in the normal alkalinity of the bloodserum have no demonstrable influence upon the (hemolytic) complement of the blood of alcoholized rabbits; (3) the diminished re-activating power of the blood of alcoholized rabbits is not due to the presence of small

amounts of alcohol, as such, in the blood: (4) the administration of alcohol to rabbits influences not only a marked reduction in the complement of their blood, but may cause, at the same time, a reduction in the specific hemolytic receptor in the blood of rabbits artificially immunized against an alien blood; (5) the diminished complement content of the blood of alcoholized rabbits renders the animal more susceptible to the toxic action by an alien blood. [T. L. C.]

2.—Willard, in his presidential address before the American Surgical Association, devotes himself largely to a retrospective account of the progress of the Association since its foundation in 1882. The progress of surgery during this time was also discussed. He predicts that another quarter of a century will find surgery on a vastly higher plane: carcinoma, sarcoma, tuberculosis and many other conditions, upon which we now look with dread, will be transferred to the list of curable diseases. [T. L. C.]

3.—Tyson presents a critical summary of our present knowledge of diabetes mellitus. In this condition, he states, there appears to be present: (1) An alimentary glycosuria due to an imperfect assimilation of carbohydrates into fat and proteid in the intestinal villi, as a consequence of which it passes over into the portal circulation in larger quantity than can be converted into glycogen by the liver. (2) A glycosuria due to the overproduction of glucose out of hepatic glycogen. (3) A glycosuria due to the fact that through vasomotor influences the glucose passes through the liver too rapidly to permit its conversion into glycogen. (4) A glycosuria due to defective oxidation of glucose. For such deficient oxidation, derangement of the function of the pancreas may be responsible, either by disease or by interference exerted by deranged suprarenal function. (5) There remains, however, another source of glycosuria which adds greatly to the complexity of the problem, and is the indication of the most intractable stage of the disease diabetes mellitus, viz.: Glycosuria arising from the disruption of proteid, with the liberation of glucose. This is seen in the last stages of the disease, when even a pure proteid diet is attended with free excretion of glucose by the urine, at this stage even the fixed proteids of the tissues yield to the inexorable demands of economy for glucose for needs which it is still unable to supply because of defective catabolism, and what is really a starvation results, with rapid emaciation, great debility and death as its terminal event, unless this is precipitated earlier by the acid toxins, acetone, diacetic and oxybutyric acids, which follows in the wake of defective glycolysis. He states that it is too early to formulate accurately our plan of treatment, based on the above conceptions, but if our present ideas are correct, our search must be directed more than it has been in the past to measures that aid oxidation. [T. L. C.]

4.—Piersol discusses congenital perforation of the parietal bones. He reviews the literature of this rare condition and presents notes of an additional case. When first examined, the portion of the skull containing the perforations was covered with the epicranium and lined with the dura, the inseparably blended membranes closing the apertures with the exception of a few perforated branches of a small size. The occluding membrane was without appreciable bloodvessels, of dense texture and devoid of any suggestion of fenestration. The two elliptical perforations were symmetrical as to size and position. The extreme length of the right was 23 mm.; the width was 10.5 mm. The left hole was slightly shorter and wider, its long axis being 22.5 mm., and the greatest width 11 mm. The intervening bridge of bone measures 32 mm. in width and is unbroken by any trace of the sagittal suture. The inner surface of the bridge is modeled by a distinct groove for the longitudinal sinus. A point of interest in this specimen is the presence of 2 parietal foramina in addition to the perforations. The condition is undoubtedly due to arrest of development induced by unusual intracranial pressure, but the cause of such influences is undetermined. [T. L. C.]

5.—Norris and Asher report 2 cases of urethral chancre. From a study of the condition, they conclude: (1) That chancre of the urethra may always be diagnosed if the pos-

sibility of its occurrence be remembered. (2) That in atypical cases of urethritis of slow development accompanied by swelling about the frenum and scanty discharge, chancre should be sought for. (3) That palpation of the part is of the utmost importance to detect any induration. (4) That the necessity of waiting for secondary symptoms of syphilis to appear, in all cases in which there is the very slightest element of doubt before putting the patient on specific treatment, cannot be too strongly urged. [T. L. C.]

7.—See editorial Philadelphia Medical Journal, August 2, 1902. [T. L. C.]

8.—Currie reports a sporadic case of cerebrospinal meningitis and has studied an epidemic of the disease in Philadelphia for the year 1899. During this time there were 235 cases reported, of which 135 were fatal. Most of the cases occurred in the early spring months, and no age is exempt, although the disease is much less frequent after early adult life. [T. L. C.]

9.—Levi reports a case of epithelioma of the axillary glands presenting the clinical features of tuberculosis. The case was diagnosed as a tuberculous osteomyelitis of the humerus with glandular involvement. An operation was advised and a shoulderjoint amputation was done with Wyeth's pins. The laboratory report showed that the specimen sent from his case was typical epithelioma, and no trace of tuberculosis was to be found. The patient disappeared shortly after operation, and the subsequent history is unknown. [T. L. C.]

ZEITSCHRIFT FUER KLINISCHE MEDICIN.

Bd. XLV., Hfte. 3 and 4.

1. On the Diffusible Alkali and the Alkali-Tension of the Blood in Disease. K. BRANDENBURG.
2. The Condition of the Blood in Measles and Scarlet Fever in Childhood. P. RECKZEH.
3. The Functional Activity of the Motor Areas of the Cortex in Sucklings. M. THIEMICH.
4. On Albumin-Decomposition and Sugar-Excretion in Severe Diabetes. A. HESSE.
5. Investigations Concerning Diabetes Mellitus.

T. RUMP.

6. Re-education of the Motor System in Hemiplegia.

P. LAZARUS.

7. The Influence of a Natural Bitter Water (Mergentheim Karl Spring) Upon Metabolism in Diabetes Mellitus and Obesity. E. ALLARD.

1.—Previously abstracted from *Deutsche medizinische Wochenschrift*.

2.—Reckzeh reports a careful study of 10 cases of measles and the same number of cases of scarlet fever, investigating the number of red and white cells; the amount of hemoglobin; in a general way, the coagulability of the blood; and the morphology of the red and white cells. He particularly refers to the differential diagnosis of measles and scarlet fever in somewhat difficult cases. He, of course, confirms the previous statement that there is a hypoleukocytosis in measles and a hyperleukocytosis in scarlet fever. He finds, contrary to some other authors, that the rise in the leukocytes in the latter disease tends to reach its greatest height during the most marked period of the eruption. The increase in leukocytes was chiefly of the polymorphonuclear type. The directly contrary condition of the general numbers of the leukocytes in measles makes an important diagnostic point. In either disease complications cause a rise in the number of the leukocytes. The lymphocytes varied greatly in numbers, but there was a striking tendency for them to show, at different periods of the disease, exactly the contrary condition to that of the polymorphonuclear cells in scarlet fever. The alterations in the eosinophiles are, he considers, very important in diagnosis. Their number is increased in the early days of scarlet fever and then falls to normal, while they are decreased in number or absent in measles until toward the end of the second week. The conditions in the two diseases are, therefore, almost directly the opposites of each other. [D. L. E.]

3.—Thiemich refers to the theory of Soltmann, that convulsions in young children are due to a physiological reflex-disposition, this theory being based upon the belief of this author and of certain other writers, that the motor areas are not electrically excitable in young children and

that, therefore, the cortical areas do not act in reducing or increasing excitability, while the peripheral nerves are known to be excitable. Thiemich has carried out a series of careful observations of children, which lead him to the conclusion that the motor area of the cortex in sucklings 3 or 4 months old is functionally active; and that, therefore, Soltmann's theory of eclampsia infantum is incorrect, as far as it concerns children who are as much as 3 or 4 months old and are not in extremely bad physical condition. Most of the children affected by eclampsia are beyond this age, and they are often in an excellent physical state. [D. L. E.]

4.—Hesse reports some extremely interesting investigations of diabetics, particularly studying the question as to the amount of sugar that a diabetic may produce from albumin. His investigations and those of others, to which he refers, lead him to confirm emphatically the view recently expressed by Umber, that diabetics—and perhaps other persons—may split off the carbohydrate fraction of albumin, excrete this as sugar or burn it up in the organism, and leave the nitrogenous element otherwise practically untouched. Consequently, any observations that show a high sugar-nitrogen ratio are wholly insufficient to demonstrate the production of sugar from fats. The author also refers to the fact that Lipliawski's reaction for diacetic acid is decidedly more delicate than iron chloride. He especially insists that the urinary nitrogen is not a direct and positive indication of the amount of albumin destroyed in the body, and that the dextrose-nitrogen quotient may well be dismissed from future writings as of no value. He also refers to the fact that in one case it could be definitely determined that large amounts of albumin in the food did not produce acetonuria, while a diet containing large amounts of fats with little carbohydrate did produce it to a marked degree. It was not possible to say whether destruction of the body albumins or the breaking down of large amounts of fats was the actual cause of the acetonuria. [D. L. E.]

5.—Rumpf gives a very extensive and interesting metabolic study of several cases of diabetes mellitus, to which study he has evidently devoted a great deal of time and patient effort. He still insists that sugar may be formed from fat; now, however, restricting his view to the statement that in extreme cases comparatively small amounts of sugar may be produced from fats; his figures are very interesting, but not convincing, because he overlooks the extremely probable theory, mentioned in the last abstract, that the nitrogenous element of albumin may be retained, while the carbohydrate element is excreted. The author also insists that acid-intoxication is not the essential cause of diabetic coma. He thinks that it probably plays a part in the production of coma, but that the degree of acid-intoxication varies greatly in coma, and that a severe acid-intoxication may be present without coma. From the observation of one of his own cases in particular he reaches the conclusion that a most important factor in the production of coma is reduction in the amount of fluid in the tissues—a drying out of the tissues; he, however, again overlooks the extreme probability that different persons react with various degrees of sensitiveness to acid-intoxication, and that merely quantitative differences are no evidence against the view that this causes coma. He insists that it is extremely important never to withdraw all carbohydrates from the diet, the cases that he describes in detail showing this most strikingly. [D. L. E.]

6.—Lazarus gives a description of the connections of the various portions of the central nervous system with each other, in order to illustrate the basis of the method of treatment that depends upon the re-education of the association centers and of the commissural nervous system. He gives a somewhat sketchy, but interesting, discussion of the extremely important results that can be obtained in hemiplegia by a persistent re-awakening of the association sensations and the persistent restimulation of the commissural connections of the two sides of the brain, ending with the statement that this method of treatment necessitates understanding, interest and energy: must be carried out with the patience and the delicacy of a teacher of the blind; and must have the complete aid of the patient, or it will be unsuccessful. [D. L. E.]

7.—The investigations seem to show that this mineral water reduces body-fat without causing a loss of nitrogen, and also reduces the excretion of sugar in diabetes mellitus. [D. L. E.]

CENTRALBLATT FUER INNERE MEDICIN.

June 7, 1902.

Pulmonary Consumption and its Treatment, with Particular Consideration of Tuberculoidin Klebs. Preliminary Communication. F. JUSSEN.

The author has treated 14 cases of the first stage of phthisis, 11 of the second stage and 11 of the third. Of the first series, 100%, of the second, 54% and of the third, 36% were so far improved that they were able to carry on their work. Of 36 cases, all of the third stage, a marked improvement in the condition of the lungs was observed in 23 instances. No unfavorable effects upon the kidneys were observed, and in severe cases that improved, the diazo reaction disappeared. There were frequently, however, marked rises of temperature after the injections, and in a number of instances the injections seemed to produce more or less severe hemoptysis. The substance is, therefore, not entirely harmless, and is especially likely to be dangerous in cases of mixed infection. Large doses, the author thinks, should not be used. He does not go above 25 drops. He thinks that the cases which improved showed decidedly more improvement than could be attributed to the general treatment alone. [D. L. E.]

June 14, 1902.

A New Micro-chemical Method for the Estimation of Haloid Salts. SCHUECKING.

It was found that methylene blue showed the amount of certain haloid salts present in solution if the temperature was considered. If methylene blue was added to solutions of chlorides, bromides or iodides, at low temperatures, more or less of the dye remained undissolved. This was largely influenced by temperature, and the methylene blue solutions used had to be kept cold, and the observations had to be carried out at a low temperature. The author determined, by adding methylene blue to a solution of the salts mentioned, the strength of the salt solution that is necessary to prevent the solution of the methylene blue from being dissolved. He has reckoned, from this method of study, a table which he believes will give a good idea of the amount of these salts in tissues studied microscopically. This table will be published subsequently, in a more complete work. Because temperature has some influence upon the question, Schuecking believes that it may be possible by this method to determine the temperature of the interior of the cells; though this is not yet certain. [D. L. E.]

June 21, 1902.

The Comparative Value of Gärtner's Hemophotographs and of the Fleischl-Miescher Hemoglobinometer.

TOLLENS.

A comparative study of these 2 methods of determining the hemoglobin, the personal factor being often excluded by having others control his results, led Tollens to the conclusion that the Gärtner hemophotograph gives approximately the same results as the Fleischl-Miescher hemoglobinometer, but that the error is decidedly greater when working with the former, and that the use of this instrument requires greater skill than that of the hemoglobinometer. If, however, the costly hemoglobinometer is not at hand, the cheaper Gärtner instrument may be satisfactorily used for clinical purposes. [D. L. E.]

REVUE DE MEDECINE.

June 10, 1902. (22me. Année, No. 6.)

1. Some Cases of Angina due to the Tetrigenus. G. CARRIERE.
2. Note on the Frequency of the Retraction of the Palmar Aponeurosis in the Insane. C. FERÉ and M. FRANCILLON.
3. Continuous Pseudolobar Bronchopneumonia. GEORGE ROSENTHAL.

1.—Carrière publishes the histories of 11 patients who suffered from sore throat due to the micrococcus tetrigenus. The patients varied in age between 3 and 12 years. The cases usually developed at a time of low barometric pressure accompanied by low temperature and consider

able humidity, such as prevails toward the end of the autumn. Why this organism should become virulent and pathogenic for man is not known. Clinically, the organism may produce an erythematous or diphtheritic throat. The erythematous type of cases begins suddenly with gastric symptoms, fever and dysphagia; it is characterized by redness of the throat and swelling of the tonsils with the appearance of islands of softened tissue; it ends in about 3 days, leaving submaxillary adenopathy, hypertrophy of the tonsils, tachycardia and anemia. In the diphtheritic type of cases the onset is also sudden and there is the development of a whitish false membrane which sloughs off. The diagnosis is to be made by bacteriological examination only. The prognosis is always good, and no unfavorable complications have been noted. The treatment should consist in disinfecting washes for the nose and throat and the exhibition of an emetic or a cathartic at the beginning of the disease. [J. M. S.]

2.—Since 1897 Féré and Francillon noticed bilateral retraction of the palmar aponeurosis in 6 cases of general paralysis, and unilateral retraction in one case of general paralysis. This led them to examine all the insane patients in *l'Hospice de Bicêtre*. Out of 226 insane patients of all classes, the condition was found 14 times or in 6.19%. Notes of the cases are appended. [J. M. S.]

3.—Rosenthal calls a form of bronchopneumonia, that lasts for weeks and even months, continuous bronchopneumonia. He reports 4 cases, in 2 of which the sputum, the lung and the inoculations made at autopsy gave pure cultures of the enterococcus, and in the other 2 the enterococcus was associated with the coccobacillus of hemophilia. The cases of bronchopneumonia caused by the pulmonary enterococcus are characterized by an onset similar to that of mild bronchopneumonia with the usual phenomena. Then the lesions improve up to a certain point, when they become confined to a pseudolobar area. The disease is of long duration, a fact that coincides well with the great vitality of the enterococcus. The disease simulates pulmonary tuberculosis by the predominance of the general symptoms, the slight fever, the few functional signs of its pulmonary localization and the pulmonary cachexia. [J. M. S.]

July 10, 1902. (22me. Année., No. 7.)

1. Aneurysm of the Ascending Aorta with Left Anterolateral Diverticulum and Sphygmographic Tracings of the Aorta. D'ESPINE.
2. Some Considerations on the Mechanism of the Intestinal Infection in Dysentery. L. E. BERTRAND.
3. Rhythmic Shaking of the Head in Aortics and in Healthy Persons. HENRI FRENKEL.
4. The Potato Cure in Diabetes Mellitus and Diabetic Complications. A. MOSSE.

1.—D'Espine concludes that an aortic aneurysm that is characterized by an anterior diverticulum is a special clinical form of aneurysm of the aorta, since the pocket comes into important relation with the pulmonary artery or with the conus arteriosus. The pathognomonic symptoms of this form of aneurysm are a pulsation to the left of the sternum and a special sphygmographic tracing which is different from that of fusiform aneurysm. The possible complications are stricture of the pulmonary artery by compression, pulmonary insufficiency by the adhesion of one of the valve leaflets or by arteriovenous aneurysm from perforation of the pulmonary artery. The usual accidents are those of venous stasis. In the classic aneurysm of the aorta in which there is a general dilation of the vessel, the tracing of the aortic pulsation reproduces all the characters of the aortic pulse. The slowing of the aortic pulse at the beginning of the shock is from 4/100 to 5/100 second. Occasionally in aneurysm of the arch of the aorta the phenomenon of inverse pulse is met with. When it exists in the right carotid and coincides with the more rapid transmission of the wave to the right than to the left, it is neces-

sary to imagine a dilation of the brachiocephalic trunk with rigid walls. [J. M. S.]

2.—Bertrand believes that dysentery is due to the increase in the virulence of micro-organisms that ordinarily inhabit the intestine. He does not consider it due to a specific organism. [J. M. S.]

3.—Frenkel believes that the rhythmic shaking of the head, known as the sign of Musset, seen in some cardiac cases and in some healthy persons, is due to the energy of the cardiac impulse and not to any particular cardiovascular disease. In a case of energetic cardiac impulse accompanied with increased arterial tension and hypertrophy of the left ventricle, this sign is very likely to be met with. Neither of these lesions are absolutely necessary to the production of the sign. [J. M. S.]

4.—Mossé's paper is the last of a series of 4 articles on the potato cure in diabetes and diabetic complications. The monograph is exhaustive. The ensemble of his studies demonstrates not only the harmlessness but also the usefulness and the ease of application of feeding with potatoes in this disease. On the one hand, carbohydrates are necessary for nutrition; on the other hand, they may increase the hyperglycemia and so weaken the normal glycolytic power. The dietetic problem then consists in finding under what form and in what proportions these substances will give the best food values without producing a harmful glycemia. The daily dose of potatoes provided in place of bread should be from 1 to 1½ kilos. The change of diet has in many cases been followed by a rapid diminution of thirst, of glycosuria and by an improvement of the general condition. This alimentation is equally efficacious in diabetic arthritis of all grades, in emaciated diabetics, in fatty diabetics, in nervous diabetics and in the surgical complications of diabetes. [J. M. S.]

JOURNAL DES PRATICIENS.

July 26, 1902. (16me. Année, No. 30.)

1. The Value of Nocturnal Pollakiuria as a Symptom. BAZY.
2. Hygiene in the Treatment of Tuberculosis. DEPIERRIS.
3. Infantile Rheumatism With Pericardial Symphysis. HUCHARD.

1.—Pollakiuria, or frequent micturition, is noted at night with arteriosclerosis. Thus it is observed in latent nephritis, beginning prostatic hypertrophy, bladder or kidney trouble, etc. It may be absolute or relative; diurnal and nocturnal. When considered with other symptoms, urine analysis, methylene blue, phloridzin and other tests, a precise diagnosis can often be made. It can then be determined whether to perform nephrectomy or not. [M. O.]

2.—Sea-shore sanatoria prevent some cases and cure some cases of tuberculosis: they prevent the spread of the disease; and they teach hygiene to patients, who, on returning home, spread hygienic regulations. Dispensaries do a valuable work; but alcohol, syphilis, etc., should be stopped and light, well-ventilated houses built for such patients. Early hygienic treatment is of great value. Rest in the open air and good food, in or out of a sanatorium, are of service in the treatment of tuberculosis. [M. O.]

3.—Huchard reports a case of endocarditis with pericardial symphysis in a boy of 17, who had rheumatism. The diagnosis rested upon pleurocostal systolic depression, fixation of the apex and cardiac dullness and pain along the phrenic nerve. Locally mild counterirritation was used and internally small doses of convallaria majalis or digitalin were administered. [M. O.]

August 2, 1902. (16me. Année, No. 31.)

1. Parasyphilitic Epilepsy. WIDAL.
 2. Re-education in the Treatment of Sciatica, with Recovery. P. E. LEVY.
 3. The Use of Acids in Pyrexia. LIEGEOIS.
 4. Chloroform and the Kidneys. JEAN CAMESCASSE.
- 1.—Parasyphilitic epilepsy consists of typical epilepsy

following syphilitic infection. It does not depend upon any syphilitic lesion, nor is it much benefited by anti-syphilitic treatment. Tabes and progressive paralysis are syphilitic, not parasyphilitic, being due directly to specific lesions. Widal believes that, while the latter conditions are due to bacterial infection, parasyphilitic epilepsy is due to the toxin of syphilis. The case-history of a man of 36 follows, with generalized epilepsy and marked lymphocytosis of the cerebrospinal fluid. In the treatment he gives bromides and specific medication. [M. O.]

2.—Will be abstracted when concluded.

3.—Of the acids formerly in general use to reduce temperature, phosphoric, tartaric and citric acids alone are still employed, and it is recognized that their effect is but slight and temporary. [M. O.]

4.—Camescasse believes that the lesions of the convoluted tubules of the kidney, described by Renaut in all cases of death following chloroform, represent the terminal stage. This explains the occurrence of uremia, anuria, etc., in some of his cases. But during paturition large quantities of chloroform may be given without any bad results. It is invaluable in eclampsia, after venesection. [M. O.]

LA PRESSE MEDICALE.

June 28, 1902. (No. 52.)

1. Diuresis in Chronic Biliary Infection. J. COTTET.
2. The New Maternity Pavilions, Paris. F. JAYLE.
3. The Chief Alterations Found in Meat. H. MARTEL.

1.—Cottet reviews the **symptomatology of chronic familial cholemia**, as described by Gilbert and Lereboullet, which may be neurasthenic, dyspeptic, hemorrhagic or renal in form. **Diuresis** is indicated to relieve the infection, cholemia and the changes in the hepatic cell. Cottet advises skimmed milk and water, especially that of Evian. Baths, exercise and other supplementary treatment are mentioned. [M. O.]

2.—Jayle fully describes the new **Port Royal Maternity Pavilions, Paris**, giving photographs. These new buildings provide 114 obstetrical beds, under Professor Budin's charge. [M. O.]

3.—Raw meat undergoes many different alterations. Among the animal parasites found are trichina, tenia, bothriocephalus, cysticercus and echinococcus. The vegetable parasites are anthrax bacilli, septic vibriones, tubercle bacilli, etc. Raw meat may be anemic, uremic or poisoned; or it may show post mortem infection with putrefaction, from the presence of saprophytic bacteria. Therefore, a rigid meat inspection is necessary. All meat should be kept on ice, besides, and no antiseptics should be allowed as preservatives. [M. O.]

July 2, 1902. (No. 53.)

1. Induced and Surgical Abortion. THOYER-ROZAT.
 2. Massage and Mobilization in Phlebitis. MARCHAIS.
- 1.—After giving the technique for inducing abortion scientifically, Thoyer-Rozat condemns the procedure of Rocheblave and Damas, called surgical abortion. This is always dangerous and is never indicated. It is considered criminal by the French law. While abortion must rarely be induced to save the life of the mother, the child, or both, it is now only too frequently performed throughout the world, yet the offenders escape punishment. [M. O.]
- 2.—Marchais advises immobilization of the extremity affected by phlebitis, if no secondary localization has appeared inside of 12 days from the beginning of the disease. This may be done with impunity if there has been no fever during 12 days. **Passive movements** may be given in a week, with slight, soft massage of the extremity later, but not near the vein affected. After 2 weeks active motion may be attempted. [M. O.]

July 5, 1902. (No. 54.)

1. Secondary Syphilitic Nephritis. A. CHAUFFARD and F. X. GAURAUD.
 2. The New Pavilions of the Cochin Hospital, Paris. F. JAYLE.
 3. The Electrical Enema. A. ZIMMERN.
- 1.—Chauffard and Gouraud report a case of **subacute**

secondary syphilitic nephritis in a man of 47, with death following in 6 weeks, in spite of mixed treatment. As much as 55 gm. of albumin to the liter was observed. Urine analysis, cryoscopic and methylene blue tests, and autopsy findings follow. [M. O.]

2.—Jayle describes the new buildings of the reconstructed **Cochin Hospital, Paris**, giving diagrams. The 3 new pavilions will accommodate 92 patients. [M. O.]

3.—Zimmern gives the history, value and technique of the **electrical enema**, a proceeding by which peristalsis is provoked or increased. It is of value in the treatment of intestinal occlusion. [M. O.]

July 9, 1902. (Vol. 2, No. 55.)

1. To Put Off Operating in Appendicitis is to Expose the Patient to Death. G. DIEULAFOY.
 2. The Treatment of Boils. P. DESFOSSES.
- 1.—Dieulafoy reports in detail the case-history of an attack of **appendicitis** in a young man, with operation on the fourth day, death on the eighth day, and full antopsy findings. He believes death to have been due to subacute intoxication, causing degenerative nephritis and hepatitis. His experience shows that all patients operated upon no later than the second day recovered. He thinks that the surgeon should never wait, but operate immediately. [M. O.]

2.—A boil may be accidental or constitutional, due to a local or general condition. Tincture of iodine or 90% alcohol locally applied may abort a boil. In the local treatment Desfosses recommends carbolic acid, warm compresses and incision. Internally arsenic, alkalies and yeast are advised. To prevent the occurrence of boils he orders bathing, alcohol locally, etc. [M. O.]

July 12, 1902. (Vol. II, No. 56.)

1. Venesection. P. DESFOSSES and A. MARTINET.
 2. The Anatomy of the Nervous Centers. J. and A. DEJERINE.
- 1.—After a long historical review of the process of **venesection**, with various illustrations, Desfosses and Martinet explain the operation, its technique, difficulties, accidents and physiological action. It is indicated when blood plethora, as in cardiac disease with congestion, or toxemia, as in uremia, exists. [M. O.]
- 2.—The new book on the anatomy of the nervous centers, written by J. Dejerine and his wife, A. Dejerine-Klumpke, has been reviewed in detail by J. Soury. The origin and development of the nervous system, especially of the brain, throughout the entire vertebrate series, are fully described. Many histological and pathological researches are given. [M. O.]

July 16, 1902. (Vol. II, No. 57.)

1. Gelodiagnosis in Typhoid Fever, Cholera and Dysentery. CHANTEMESSE.
 2. Enteroclysis. FROUSSARD.
- 1.—Chantemesse calls the following method of differentiating typhoid bacilli from colon bacilli **gelodiagnosis**. He causes pullulation of the typhoid bacilli in feces; obtains superficial cultures on gelatine; adds carbolic acid, lactose and toursenol, which kill all but typhoid and colon bacilli, the former becoming blue, the latter red; and finally completes the diagnosis by agglutination with an antityphoid agglutinating serum. A similar proceeding is advised in cholera and dysentery, and in examining water suspected of containing the micro-organisms of these diseases. Details are given. [M. O.]
- 2.—Froussard describes the instruments, technique, difficulties and accidents of **enteroclysis**. He uses a fountain syringe, varies the temperature as needed and gives from a pint to 2 quarts, the patient lying on his back. Perforation of the colon is very rare. Pain and hemorrhage may follow enteroclysis more frequently. [M. O.]

July 23, 1902. (Vol. II, No. 58.)

1. Xavier Bichât. P. E. LAUNOIS.
 2. The Meeting of the American Medical Association.
- 1.—Launois reviews the life, work and influence of Bichât upon biology. Several illustrations accompany the article. [M. O.]
- 2.—The recent meeting of the American Medical Association at Saratoga is reviewed in detail. [M. O.]

Society Reports.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Twenty-eighth annual meeting. Kansas City, Mo., October 15-17, 1902.

The president, Dr. S. P. Collings, delivered his address on the **relationship syphilis bears to the body politic**. He selected this subject, because this disease is so widespread, its transmission could be controlled, and because, for 25 years, he has observed its frightful ravages. The prevention of the spread of syphilis by educating the public should be more rigorously advocated.

Medical Section.

Dr. J. M. Batten, Downingtown, Pa., read a paper on **smallpox**, in which he detailed the symptoms, and discussed the diagnosis and prognosis, emphasizing the necessity of vaccination. Dr. E. M. Houghton, Detroit, Mich., referred to the unsatisfactory condition of our knowledge of the **chemistry of digitalis**, and stated that a sterile, nonirritating and uniformly active preparation was greatly needed. Dr. J. J. Gaines, Excelsior Springs, Mo., followed with a paper on some developments in the **therapy of iodoform**, the best remedy for tuberculosis. He reported a number of cases of pulmonary and gastro-intestinal diseases in which he had used it with gratifying results. A paper on **normal sleep versus drug unconsciousness** was read by Dr. J. B. Learned, Northampton, Mass. Automatic brain activity at the sleeping hour was the immediate cause of wakefulness. The remedy was muscular exertion under the direction of the will. Automatic brain work was pathological. Brain and muscle work, under the direction of the will, was physiological. He described a method of inducing sleep. Dr. H. M. Beaver, Spring Hill, Kansas, described the **treatment of exophthalmic goiter by electricity**. The cardinal principle of treatment was to decrease the flow of blood to the head. He reported 3 cases and described the electric application. He regarded exophthalmic goiter as a vasomotor paralysis; hence it was amenable to electrical treatment.

Dr. J. Billingslea, Baltimore, Md., contributed a paper on the **antiseptic treatment of typhoid fever**, reporting 150 cases. Brand's method of cold bathing owed its merits largely to its eliminative value. An effective antiseptic seemed to exist in acetozone, endorsed by Professors Freer and Novy, of Ann Arbor, Mich. Wasdin had recorded 24 cases treated with this drug, with subsidence of fever, few complications and decreased duration of the disease. He had treated 150 cases of typhoid fever with acetozone, the results surpassing expectations, not a single death having occurred. He dissolved 15 to 20 grains of acetozone powder, equal to $7\frac{1}{2}$ or 10 grains of the benzoyl-acetyl-peroxide, in a quart of water, and gave the patient this in 24 hours. The action of the drug was aided by a mild saline laxative every other day. Dr. W. F. Barclay, Pittsburg, Pa., contended that sewerage had much to do with the causation of typhoid fever. As to treatment, he gives ammonium acetate, 1 to 2 drams, every 3 hours. He excluded milk as a diet, believing it to be dangerous. In cases with hemorrhage he gives turpentine externally. Dr. J. J. Taylor, Streator, Ill., has used acetozone and considered it a valuable antiseptic. Dr. H. J. Stewart, Chicago, Ill., had treated 16 cases with acetozone. Two patients could not take it. Dr. E. J. Brown, Decatur, Ill., said that acetozone was an antiseptic upon which practitioners could safely rely.

Dr. W. A. Campbell, Colorado Springs, Col., read a paper entitled **what class of pulmonary cases do well in Colorado?** This paper will appear in the *Philadelphia Medical Journal*. Dr. J. E. MacNeill, Denver, Col., read a paper on the **climatic and electric peculiarities of Colorado**, favoring recovery in pulmonary and intestinal diseases and from sur-

gical operations, in which he discussed the physical characteristics and the mineral springs of Colorado, and cited some generally accepted facts regarding mountain climates. Dr. P. Paquin, Asheville, N. C., regards **consumption as a mixed infection**. With respect to consumption, the most vital question was that of nourishment, whereupon one might base such measures of treatment as might be deemed best for restoration. Without nourishment of a sufficient kind in quantity and quality, nothing would avail in therapeutics. Tuberculosis could not be arrested without the assimilation of sufficient and proper food. As abnormal conditions of the mucosa must be restored before good digestion can take place, he advocates lavage of the stomach and intestines. As specific measures, serotherapy, the cacodylates and iodine offer the greatest aid in preventing organic changes. Mixed infections in tuberculosis cause marked dyspepsia. Dr. A. E. Sterne, Indianapolis, Ind., discussed the **excellent results in the treatment of tuberculosis by the ultraviolet ray**. The nude body was exposed to intense light from powerful voltaic arcs, and in addition free ozone was developed from a special ozonating apparatus. In local applications only one pole was used, and this was connected with vacuum tubes. He claimed excellent results in debility, neurasthenia and the primary stages of tuberculosis. Dr. R. H. Babcock, Chicago, Ill., discussed the **sanatorium treatment of pulmonary tuberculosis**. He divided this into 4 classes: Pure air, nourishment or forced feeding, hydrotherapy and a strict régime or control of the patient's daily life. He gave the details for carrying out such a treatment at home. He believes that most medical practitioners are not aware of the importance of this treatment, nor are they properly instructed in its details. Dr. A. M. Holmes, Denver, Col., read a paper on **tent life in the treatment of tuberculosis**. Tent life was the most important means of securing pure air and sunshine. Patients were with difficulty induced to return to an indoor life. It increased appetite, improved sleep and nutrition, diminished cough and night sweats, increased weight and decreased fever and the tendency to take cold.

Dr. H. T. Patrick, Chicago, Ill., delivered the address in medicine on **how not to be nervous**. The initiative of all therapeutics should be prophylaxis. The first and most effective preventive of nervousness was a reasonably long line of first-rate forbears. His office records showed a neurotic heredity in 70% of cases. Next came environment. Reaction to extraneous influences began at birth, and ceased only with death. Yet childhood and youth were the plastic stages. For preventing nervousness there was nothing so effective as toughening the body and mind. More important still was toughness of psychic fiber. The child who could support disappointment, who could be crossed, and who habitually obeyed was building a bulwark against nerves. To produce this toughness a certain exposure to bodily discomfort and mental hardship was necessary. Much nervousness was caused by misdirected energy, misplaced worry, longing for baubles, fighting of phantoms, etc. Dr. G. F. Butler, Alma, Mich., read a paper on **neurasthenia**, the expression of nerve tire of the central nervous system and its consequences. As overaction of the organs implies underelimination, autotoxemia follows. Renal and hepatic disturbances add to the clinical picture. Neurasthenia might occur alone, or might be an expression and complication of any constitutional disorder. In such cases both the nervous and the constitutional disorders require treatment. Neurasthenia with phthisis, nephritis, diabetes and syphilis was a true neurasthenia which, if not treated, intensified the disorder which caused it. The treatment consists in proper diet, hydrotherapy, balneotherapy, relief of insomnia and removal of an etiological environment. Dr. J. J. Taylor, Streator, Ill., detailed a case of rheumatic neuritis, complicated by neurasthenia.

Dr. J. Puntton, Kansas City, Mo., in a paper on the criminal responsibility of the epileptic, gave a brief summary of historical data defining the line of demarcation between empiricism and scientific knowledge in the study of epilepsy. He concludes that epilepsy is a symptom of some brain disease; that its presence tends toward mental deterioration; that the mental responsibility of the epileptic depends upon the extent to which mind or self-control has been impaired; that the legal test of insanity is not sufficient, as mental irresponsibility is not incompatible with a knowledge of right from wrong; that epileptics are to some degree responsible for criminal acts, more especially when the epilepsy is produced by their own default; that criminal acts of epileptics appeal to medicine rather than law for their proper adjudication; that in case of murder in which epilepsy is proved, the law should be amended to allow of life commitment to an insane asylum; that the mental responsibility of the epileptic in murder should be referred to a medical commission, appointed by the court.

Dr. F. E. Coulter, Omaha, Neb., read a paper entitled sudden atrophic influence of craniospinal nerves, reporting a case. Under certain conditions craniospinal nerves may exercise a sudden atrophic influence on the skin. The results in the case reported were due to a disturbance of this nature, because the hair was normal before the attack, but within 3 days it had disappeared from the areas described; the character of the new hair was the natural product of faulty nutrition; and the fact that this was a bilateral lesion would naturally indicate that one was dealing with a blood condition. Dr. W. B. Fletcher, Indianapolis, Ind., in a paper on hebephrenia, spoke of the causes, character, prevention and treatment of the various forms of insanity of children during puberty.

Dr. J. M. Ball, St. Louis, Mo., read a paper on sympathetic eye disease. He discussed the diagnosis, symptoms, etiology, prognosis and treatment of sympathetic irritation and inflammation. Dr. J. W. Sherer, Kansas City, Mo., followed with a paper on toxic amblyopia, presenting a clinical report of 5 cases due to methyl alcohol. Blindness rapidly followed drinking the poison. The eyes appeared normal externally, with pupils slightly dilated. The fields were contracted and showed absolute central scotomata. Degeneration of the ganglion cells and macular layers of the retina occurred, partly due to vasoconstriction and diminished bloodsupply, and partly to the action of the poison. Consecutively the nerve fibers degenerated. A paper on bilateral glaucoma was presented by Dr. F. B. Tiffany, Kansas City, Mo., who reported the case of a patient upon whom he performed double iridectomy.

(To be Continued.)

ZEITSCHRIFT FUER ORTHOPÆDISCHE CHIRURGIE. 1902. (Vol. X, No. 2.)

12. The Origin and Treatment of Scoliosis From Clinical and Experimental Studies. L. WULLSTEIN.

12.—This exhaustive work is in 3 parts, one on the reasons for the use of forcible "redressement" for kyphoscoliosis, from medicoclinical investigations and experiments on the cadaver; the second on forcible "redressement;" and the third on kyphoscoliosis and kyphosis induced experimentally in dogs. Naturally percussion and auscultation in cases with scoliosis give results quite different from what is found normally. Eighteen case-histories follow, with photographs before, during and after "redressement." The changes following treatment are fully described, as are similar changes occurring in the cadaver, when forcible "redressement" was done. The history of this treatment, the preparation of the patient, the apparatus, its use, complications and results are fully described. His experiments on dogs follow in detail, explaining the same processes in human beings. The literature is completely given. This monograph covers over 200 pages and has 115 photographic illustrations. [M. O.]

Special Article.

HOSPITAL CHARITIES IN PHILADELPHIA.*

By DANIEL BAUGH, Esq.,
of Philadelphia.

Mr. President, Ladies and Gentlemen:—

The invitation to address the members of this Association on the occasion of its fourth conference came to me as a surprise, but it was none the less, as I viewed it, a pleasing one and a compliment. I cordially assented, but with misgivings which never since have been removed, that my best efforts might fail to interest you and that my remarks should prove inapt for these opening exercises of your three days' program.

You come together, I am sure, in these annual conferences for definite and conscientious purposes—primarily to broaden your views, to discuss the ideals set up to promote the special work to which your lives are devoted, and to seek, by mutual help, a higher plane of efficiency in discharging those intensely practical duties and humanitarian requirements pertaining to the great institutions you severally represent, by all the means such a conference brings, of gaining, one from the other, advanced methods and better systems of administration. Coupled with these aims are those equally lofty and honorable—the beautiful inclination toward social and intellectual enjoyment of the cultured senses. A glance at your program tells the story of these aims—a pleasant commingling of earnest work and purpose with social relaxation.

Taking this view of your conference, gentlemen, I asked myself at the outset: What can be said in a few minutes by a layman, and one almost destitute of ideas on the subject of the advanced systems of hospital management, to bring intrinsic suggestion or even entertainment to your patient hearing?

One of your most distinguished members kindly suggested a theme which at once attracted me because of its coloring of local narrative and civic tradition. It was that I should say something to the members concerning early charities and the progress in hospitals and almshouses in Philadelphia. It is a subject of much local interest, but hardly one that can be successfully treated in order to secure a wider appreciation. In pursuing it I found myself floundering amid a prodigality of written reviews, patient reports of investigations and quaint records of hospital management in this city from a very early date in its history. While my own gratification has been attained, and a new interest in all the various forms of hospital charity and hospital administration has been aroused in me, I am at a loss how to present them to you in a desirably concrete form.

The annals of charitable work take, as I have said, an early place in the story of this City of Penn the Quaker, and mark an era at once of things small and great. We dare not despise the day of small things, for these, after all, are only relative and form the sure foundation of the greater achievements which greater wisdom and hard experience

*An address delivered before the Association of Hospital Superintendents in Philadelphia, October, 1902.

always bring. For all this, it is hard to repress a smile while reading the early records of our oldest distinctively hospital work, which began about the middle of the eighteenth century. For the records of the earlier almshouses and such hospital provisions as they were most imperfectly able to make are almost entirely wanting. We glean considerable insight, however, from contemporary mention, of the difficulties which environed them, and tradition adds its curious quota of incident. With the founding of the Pennsylvania Hospital came more or less fully written records, and they exist to-day in the handwriting of some of the most illustrious men in American history. Yet to you, ladies and gentlemen, surrounded by every helpful facility and scientific appliance in your own modern institutions, these records would appear almost pathetic. And yet, turning from these small things to the great, you would bow with me in reverence of the sturdy energy of that embodiment of true charity and loving kindness—that which sought unselfishly to succor suffering humanity—exhibited by the Friends or Quakers while establishing the first almshouses and hospitals here, over one hundred and fifty years ago. They accomplished, in their best way, all that could be expected of the means known at a period long anterior to the foundation of our National Government. The indigent sick, the injured and the insane were received and treated by the best forms of medical and nursing skill of that day, and that is all we, with our vast store of acquired knowledge, are doing now in greater degree.

The evolution from these first employed crudities—both in diagnosis and in treatment—was rapid. In diagnosis especially the quaint early records show as the years pass a departure from the loose and blunt description of admitted cases, and the gradual adoption of forms which indicate clearly a higher professional judgment and exactness of expression. From the middle of the century, and especially toward its close, the importance of hospital regulations and the dignity of official positions within the scope of hospital work gradually expanded.

The Revolution brought great changes, and additional hospitals were established, although for years several of these occupied rather a temporary place in the work of charity. The vicissitudes of war and occupation by the conflicting forces interfered with the proper efficiency and development of all but one of these as local institutions; this one the *Philadelphia Almshouse*, which, for ten years, at least, prior to the founding of the great *Pennsylvania Hospital*—about the year 1752—was carrying on its beneficent work among the poor and afflicted. Its location at several different places in the city during the troublous times which preceded the independence of the Colonies, and, indeed, for a time afterward, shows us the strong determination, not only to maintain its existence as an almshouse, but to enlarge its range of hospital work. Even before the Revolution we find that there were appointed regular attending physicians, each one of whom received the sum of fifty pounds a year and was obliged to supply the necessary medicines for the sick inmates—men whose names are to-day eminent in medical history appear as appointees. The official connec-

tion with the almshouse and hospital was regarded as honorable to their profession and fortunate for the institution. One of the earliest of these became the first surgeon and physician to the *Pennsylvania Hospital* and a lecturer on clinical medicine and surgery in that institution some years before the Declaration of Independence.

In the Philadelphia Almshouse, during the administration of these salaried physicians, there appears from contemporary annals some undoubted lack of good management, which, to my mind, indicates the absence of a superintendent's authority. Men claiming to be doctors volunteered their services to the poor patients and were freely admitted. They were for the larger part mere "quacks," as we might call them, whose ignorance and assurance worked great injury in a large number of cases, so that the gross irregularity, after a long continuance, cast much popular discredit upon the management. Fortunately, the great wrong and scandal were at last realized, and the Board of Managers passed a resolution, and, I believe, enforced it, which forbid any but the regular medical appointees to prescribe or care for hospital patients. The resolution also implied a reprimand to the regular doctors and required closer attention and more regularity and system in their visits. The Board went further in perfecting the range of hospital work and usefulness in finally adopting a long pressed proposition to admit students of medicine and surgery, and to enlarge the corps of medical attendants. It may be said that the system, universal to-day, of gratuitous professional service in our American hospitals had probably its origin in this progressive step.

In this loose and imperfect mention of the progress of hospital growth in Philadelphia it is impossible for me to indulge in any particular reference to the enticing incidents these ancient records reveal. Indeed, my purpose would be overburdened and would fail utterly if I did so. I have allowed rather a glance at the history of hospital charity and its development in Philadelphia institutions, in order that within the scope of which may be seen the evolution from experimental and crude methods to a condition in which the hospital superintendent becomes an essential factor and an intelligent, forceful coworker in all progressive beneficence implied by hospital charity.

Charity, in its exercise by our higher intelligence, is not mere almsgiving. It has progressed from this limited heart-prompted aim to a manifestation of human powers directed by this higher intelligence into channels and economic systems where the good is to the recipient rather than to the spiritual comfort or conscience of the giver. It has been called the "new charity." It solely concerns itself with the effects upon the unfortunate and helps him to take a larger share in living than he would be able to enjoy without that help. This is hospital charity. Its exercise in the great crowded centers of population is demanded by the abiding instincts of humanity, and the practical work, devised and made operative through these kindly instincts and ideals, devolves upon the

medical directors and superintendents of our hospitals to bring their highest realization.

I am impressed by the significance of this by the history of our own Pennsylvania Hospital. In its earliest efforts to work out its avowed aim in the community—in its struggles with the circumstances entailed by the American Revolution; in its battling with the results of repeated epidemics and almost despairing poverty in districts devastated; in its own trials of many experiments to control its practical work; in its experiments with "Committees on Economy" and in the sorrows of the "Sitting Managers" in carrying out house-rules—one can discern the then unknown values that pertain to a central, trained authority of administration—a watchful and energetic superintendent. I presume the office of steward was known and, in a way, its functions were performed, but the remedial results in interior administration do not seem to be marked.

Boards of Trustees have absolute powers. Their authority and decisions upon all questions of policy and general economics in hospital work are supreme, but they cannot, either by resolution or committee, command efficiency of attendants or keep a direct watch over the daily and hourly beginnings of in-harmonies, abuses or mistakes within the walls of an institution. This must be secured by delegating the executive duties, as a whole, to one authority, one which stands firmly for fidelity to organic rules and an alert conscientious regard for the rights of the helpless and the guardianship of property.

Gentlemen, these few remarks have not been made through any desire to flatter you, nor to magnify unduly the responsibilities and dignity of your calling. They form a simple word of recognition of those engagements of the mind and heart which are undertaken by sincere supporters of the efforts of systematic charity on this continent. The words of cordial welcome spoken by our honored Mayor, emphasized by Judge Ashman, are just as cordially re-echoed by me. I wish you the highest success in your business meetings for the coming hours of your conference, and a genuine enjoyment of all the pleasures which must flow from good fellowship.

REPORT ON TYPHOID FEVER AT ATLANTIC CITY.

To the Atlantic City Academy of Medicine.

Gentlemen:—At your last regular meeting, on September 19, 1902, attention was called to the prevalence of an increased number of cases of typhoid fever in this city, and to the adverse reports from cases in other cities, said to have originated here; also to several publications that indirectly reflected on sanitary conditions here. You appointed a committee to take up this matter systematically and investigate every possible point from which typhoid or other diseased conditions might emanate, and authorized the employment of such sanitary experts as might be of assistance. We beg to make the following report:

Water-Supply.

We personally investigated the distribution, pumpage, reservoir and accessories and found no

possible present source of contamination of the supply. The water-supply is drawn largely from a series of driven artesian, self-flowing wells in an almost uninhabited watershed. These wells tap a subterranean stream of the purest fresh, clear water that can be found, and there can be no possible contamination from this source. This water is delivered into a reservoir of pure sand and gravel, and pumped direct from this point to the city. The second source of supply is a small lake or pond fed largely by springs and small streams coming from the wild, natural cedar lowlands, and two miles from the pumping station, to which it is conducted through an open artificial canal. Our Water Commissioners are planning a closed wooden conduit to replace this open canal. This water, like all cedar water, has a slight brownish color, due to coloring matter from cedar roots in the lake, but this is not injurious.

We are convinced that no typhoid fever has emanated from this source. There is also a reserve artesian system of deep wells on the island in the city from which is taken as pure a supply of water as can be found in the world.

Sewerage System.

The sewers are built on the West system; all sewage flows to a common pumping station and is pumped in large pipes, across the salt marshes, small streams, Penrose canal and Clam thoroughfare, into Beach Thoroughfare, at a point about two miles from the center of the city. Beach Thoroughfare is a Government highway of ocean water and carries large ocean-going sailing vessels. The sewage pumped into it is infinitesimal in comparison to this body of water, and, by the time it flows through its channel to the sea, it is almost nil. *We are informed that, during the past summer, owing to a break in this disposal pipe, almost the entire sewage of the city passed directly into Penrose's Canal and flowed through this with the ebb and flow of the tide into the thoroughfare.* Penrose's Canal is an artificial waterway carrying a comparatively small proportion of tide water. It begins near the railway entrance to Atlantic City and extends about a mile or less to Clam Thoroughfare, and this in turn to another point on Beach Thoroughfare near the regular sewage outlet.

We know of two authentic cases of typhoid fever that could be traced positively to sources outside of Atlantic City, from whom all excreta were thrown into the sewer for four weeks in one case, and ten days in the other, with no disinfection whatever. Other cases may have done the same. Sewage, contaminated with typhoid stools, passed directly into Penrose's Canal and contaminated this water, rendering it dangerous for use for any purpose. We also find another point, known as Gardner's Basin, in the city limits, where all the sewage of that immediate district passed direct for many years until sewers were laid, and at present these waters are contaminated with the excreta thrown from boats, as well as from two properties not yet connected with the sewer, rendering this water unsafe for use. We find in these infected waters the strongest and most positive circumstantial evidence pointing to the source of the present trouble.

Oyster Supply.

The so-called "Absecon Salts" are grown in beds situated near Grassy Bay, where the tide-water of our Inlet and Brigantine Inlet divide, and far from sewage contamination. A salt-water oyster is rather bitter and "thin" when first taken, and must be "fattened," "freshened" or "fed" before it is "prime." This "fattening" process consists in putting the oyster into a mixture of fresh and salt water in certain proportions. They remain there for 24 to 48 hours and are then ready for delivery, greatly increased in size from their "drink." During ten months of the year the "fattening" process is done near Absecon, where the waters are pure and safe, but in July, August and part of September the largest dealers have been "fattening" their oysters in waters taken from Gardner's Basin and at the city end of Penrose's Canal, the points already specified as infected with sewage. The largest individual dealer had his "crib" in the mouth of Penrose's Canal, and this dealer, as well as others, unknowingly and thoughtlessly, supplied the markets with sewage-fed oysters. These oysters, when eaten raw, exposed one to diarrhea, cramps, dysenteries and, possibly, typhoid fever. We find on investigation that all of the typhoid patients, with few exceptions, had indulged freely in these raw oysters and undoubtedly contracted their disease from them.

Clams taken from these sewage-infected waters are usually cooked; but, when eaten raw, expose to similar troubles.

Other food and milk-supplies have been considered, but, as the cases are not localized to the delivery of any dealer, are found not at fault. Several of these typhoid cases have been traced to sources outside of our city, while others, who have not eaten oysters raw, may have been exposed by some direct or indirect contamination away from this city. With typhoid fever epidemic in our leading cities, we may fully expect to hear of many cases wrongfully attributed to this city, on the strength of a few days' stay here. In several instances, with cottage and transient guests, it was their daily custom to spend the day at business in our nearby cities, eat their dinners there and return in the evening, and then attribute their typhoid to Atlantic City. The possibilities in these cases, in which the raw oysters have not been eaten, are strongly in favor of out-of-town infection.

Believing as we do that we have located this entire trouble, these facts were presented to the Board of Health of Atlantic City, *by the committee in person, and it was ordered by the Board of Health that in the future no oysters fattened in the waters between Beach Thoroughfare, and the ocean, and no clam taken from Beach Thoroughfare, or the waters between it and the ocean, should be sold or delivered within the corporate limits of Atlantic City under the penalty of a heavy fine.* The Board of Health also resolved to notify the local boards of health in the oyster "fattening" districts with a view to properly regulating and safeguarding the output. All dealers have been notified of this

ruling, and it is now in full force. We consider our oyster supply now safe.

(Signed)

Committee.

B. C. Pennington, President.

W. Blair Stewart, Secretary.

W. M. Pollard.

Philip Marvel.

J. Francis De Silver.

UNIVERSITY OF PENNSYLVANIA,
Laboratory of Hygiene.

Philadelphia, October 20, 1902.

Dr. W. Blair Stewart,

N. E. cor. Pacific and North Carolina aves.,
Atlantic City, N. J.

My dear Dr. Stewart:—

I have read your report carefully and, after examination of all available evidence on the subject and personal inspection of your water-supply, sewage-disposal system and the oyster-fattening plants under suspicion, am convinced that the opinion expressed by your committee is correct. I am glad, therefore, to be able fully to endorse all that you have said in your report, and particularly that part of your report referring to the oysters as the probable source of the infection during the summer. I do not believe that the evidence we have gotten together on the matter justifies any other conclusion.

Very truly yours,

(Signed)

A. C. Abbott, M. D.,

Professor of Hygiene and Bacteriology,
University of Pennsylvania.

I coincide with the conclusions above set forth.

(Signed)

Henry Leffmann.

ZEITSCHRIFT FUER HEILKUNDE.

July, 1902. (Vol. XXIII, No. 7.)

1. Tertiary Lesions with Brain Tumor.

ALFRED FUCHS.

2. Investigations on Hydranencephalia (Cruveilhier),

HEINRICH KLUGE.

3. The Pathology of the Disturbances of Motion Noted in Pseudobulbar Paralysis. FRITZ HARTMANN.

1.—The tertiary lesions in brain tumor, in contradistinction to those of secondary degeneration, are the distant symptoms which make the diagnosis of the localization of the tumor exceedingly difficult. Fuchs reports the case of a man of 33, not syphilitic, with typical symptoms of tumor of the temporal lobe, headache, vertigo, vomiting and diminished vision. Death occurred, and the diagnosis was confirmed at autopsy. With the loss of reflexes degeneration of the posterior columns was found. Old degeneration of the right pyramidal tracts was also noted. Besides, the trigeminus nerve on the other side had also degenerated throughout its entire extent, including the centers. The degeneration of the pyramidal tract caused spastic paralysis of the extremities. [M. O.]

2.—Hydranencephalia, or hydrocephalic anencephalia, is a condition of partial or total brain defect, the cavities being filled with hydrocephalic fluid. It is congenital, following embryonal arterial disuse. The condition is a variety of porencephalia. Kluge reports 2 cases, one of which lived 20 hours. The condition was found at autopsy in both cases. There were no signs of syphilis in either infant. A full histological description of the condition follows. Most marked were the bloodvessel changes. Several excellent drawings illustrate the condition. [M. O.]

3.—Will be abstracted when concluded.

Original Articles.

REPORT OF A CASE OF PENETRATING WOUND OF
THE HEART. UNSUCCESSFUL ATTEMPT AT
SUTURING.*By JOHN H. GIBBON, M D.,
of Philadelphia.Professor of Surgery, Philadelphia Polyclinic; Surgeon, Bryn
Mawr Hospital; Surgeon, Out-Patient Department
Pennsylvania Hospital.

The subject of penetrating wounds of the heart has been so thoroughly dealt with in recent months by a number of American surgeons that I feel sure the members of this Society are already familiar with the progress made in this very interesting field of surgery, and I hesitate to say much on the symptoms and treatment of the condition, but every case reported must be of interest and contributes to the statistics from which we draw our ideas regarding the best treatment.

A. B., colored, aged about 25 years, was admitted to the Pennsylvania Hospital on September 8, 1902, at 8.45 P. M., having been picked up on the street in an unconscious condition by a police patrol. From facts learned subsequently, it would appear that the man had been stabbed about 15 or 20 minutes before the police arrived.

I saw the patient 15 minutes after his admission and found a stab wound through the fourth costal cartilage, from which blood was slowly oozing. The patient's pulse was so small and rapid that it could not be counted. The cardiac area of dullness did not seem to be greatly increased, and there was no evidence of blood in the pleura. The patient was in a state of semi-consciousness, any manipulation producing a great deal of restlessness. He was hurriedly removed to the operating room, where a hypodermic injection of morphine and atropine was given, for the purpose of quieting him during the cleansing of the area about the wound, and in order to avoid, if possible, the use of a general anesthetic. It was found, however, that a small amount of chloroform was necessary in order to keep the patient quiet. At this time no pulse could be felt at the wrist. At 9.20 a flap was turned back and the fourth costal cartilage excised. A considerable amount of semi-fluid blood was encountered outside of the pericardium. The opening in the pericardium was readily found, and when it was enlarged, very dark blood spurted out in a considerable stream. Digital examination revealed a pericardium filled with blood and a heart which was making desperate efforts to perform its function. It was difficult to find the wound in the heart wall because of the rapid and irregular movements of the organ. After a brief period, however, the tip of the forefinger discovered the opening and, when inserted into it, arrested the bleeding. While thus controlling the hemorrhage with the left forefinger, I resected with my right hand the third costal cartilage; in doing this, however, the pleura was opened. Having removed this cartilage, the wound in the pleura was closed with gauze packing, and a curved needle, armed with catgut, was passed into the heart muscle near the wound for the purpose of bringing the organ up into the external opening, where it could be sutured. At this time the patient's heart ceased to beat, and, although I endeavored to produce contractions by compressing the heart with two fingers of my right hand, while controlling the opening with my left forefinger, no action could be produced, and the patient died, the respiration continuing for about 2 minutes after the heart action ceased.

I thought, at the time of the operation, that the wound which I discovered was in one of the auricles, but the post mortem examination showed it to be in the right ventricle, just below the pulmonary opening and very near the septum. The suture which I introduced had passed

through but one side of the wound of the heart. In introducing this suture, I tried to make it approximate the wound edges, though it was primarily introduced as a tractor, and in this capacity it worked well, bringing the heart into easy reach. The time occupied in my endeavor to arrest the bleeding and close the heart wound was about 5 minutes. At the same time I began my work, Dr. Mitchell began the exposure of the median cephalic vein, in order to give transfusion, but the patient died about the time the vein was exposed.

The heart was carefully examined post mortem by Dr. Longcope, the resident pathologist, who made the following report:

Thorax.—On removing the sternum, the anterior mediastinal tissues were found full of blood. The left lung was collapsed and the left pleural cavity contained a large quantity of fluid blood. The right lung was bound to the parietal pleura by a few light fibrous adhesions.

Pericardium.—The parietal pericardium was infiltrated with blood and presented a dark purplish-black appearance. The cavity contained a small amount of blood.

Heart.—Weight, 320 gm. The heart was not enlarged. It contained no blood and was quite flabby; epicardium smooth and glistening, enclosing a moderate amount of fat. In the wall of the right ventricle, 2 cm. from the interventricular septum and $4\frac{1}{2}$ cm. below the conus arteriosus there was a linear wound $1\frac{1}{2}$ cm. in length. It appeared as a narrow slit and ran in the direction of the septum, from the apex toward the pulmonary artery. Passing a probe through this wound it entered the right ventricle between the columnæ carneæ. The heart muscle was pale, brown and rather soft. All the valves were delicate. The aorta was smooth.

This case presents a number of interesting features. The diagnosis of the exact nature of the injury was not difficult; the position of the wound, the rapidly failing circulation, the absence of blood in the pleura and the patient's nearly complete unconsciousness taken together pointed very definitely to a penetrating wound of the heart without injury of the pleura. In these respects the case closely resembles Nietert's case (*Philadelphia Medical Journal*, December 14, 1901). The unconsciousness in both these cases was due not to loss of blood, but to pressure upon the heart by the well-filled and inelastic pericardium. In Nietert's case, when he exposed the heart, enlarged the pericardial wound and relieved the pressure, the patient regained consciousness and conversed during the later steps of the operation.

Penetrating wounds of the heart without injury of the pleura are extremely rare. It is worthy of note that in Nietert's case the knife entered the fifth interspace near the sternum, and that in the case reported the knife passed directly through the fourth costal cartilage about three-quarters of an inch from the sternum, since Sherman, in his interesting discussion of heart wounds before the American Medical Association (*Journal of the American Medical Association*, June 14, 1902), stated that, in order to enter the pericardium without first penetrating the pleura, the instrument must enter the sixth interspace close to the sternum. In Nietert's case also the right ventricle was injured. Out of 34 cases operated upon since 1896 and collected by Sherman, the left ventricle was injured 17 times, the right 13 times, and the right and left auricle each once. I will not present all of Sherman's figures, since his paper, or abstracts of it, appeared in a number of leading American journals. A few statements, however, regarding this collection of cases are pertinent. With but two exceptions the

*Read before the Pennsylvania State Medical Association, at Allentown, September 19, 1902.

wounds were either incised or lacerated ones, the two exceptions being cases of gunshot wounds. In nearly all of the cases the pleura had been opened and a hemothorax was present at the time of operation.

Technique.—Sherman has conducted a number of experiments upon dogs, with the idea of discovering the best technique to follow. Silk seems to have been the suture material preferred by most of the operators. Sherman believes, however, that catgut will be found as satisfactory as silk. He makes the suggestion of employing two long suspension loops of silk passed through the heartmuscle, in order to control it during the introduction of sutures, and it was with this suggestion in mind that I introduced the traction suture in my own case. Sherman found it very difficult to carry the sutures through the endocardium; in but one dog was he able to do this. He states that there was little difference in the results obtained by the use of continuous and interrupted sutures. An interesting case of Izzi's is referred to in which the heart was wounded but not sutured, the patient recovering. Twenty-eight days after leaving the hospital, however, in lifting a heavy weight the cicatrix in the heartmuscle ruptured and the patient died suddenly. It was found that the heart wound had been closed by a clot which had become organized, but there was no proper coaptation of the wound edges. The frequency of infection in these cases of heart injury is attributed partly to the constant motion of the parts, the result of circulation and respiration.

In his first case Nietert resected the cartilages, as was done in the case here reported, but in his second case (*Interstate Medical Journal*, January, 1902), which was successful, he made an osteoplastic flap with its base toward the sternum, which, when turned back, revealed the pericardium. A number of different methods of removing the structures over the heart have been suggested, but it appears to make little difference, so far as results go, which of these is chosen, so long as the surgeon gives himself ample room to perform the necessary suturing.

Prognosis.—The prognosis of penetrating wounds of the heart treated surgically is extremely interesting and is sufficiently favorable to stimulate us to further effort. Of Sherman's series of 34 cases, 5 died during the course of the operation, and 10 shortly afterward; 13 of the remaining 19 recovered and 6 died. It is interesting to note that in the 19 cases which survived the operation for any length of time the heart wound was successfully closed in each, none of the patients having died of secondary bleeding. The 6 fatal cases of these 19 died from infection, and in 4 of the 13 successful cases infection took place, but the patients survived in spite of it. Of course, this recovery-rate of 13 out of 34 does not represent the true state of affairs, since many cases are probably unsuccessfully operated upon and are never reported. It is, however, surprising that in this series there are so many recoveries.

Both of Nietert's cases have a peculiar interest from a prognostic point of view. His first patient died of suppression of urine 33 hours subsequent to the operation, and after a good recovery from the

shock due to hemorrhage and operation. The second recovered in spite of a subsequent empyema.

George Tully Vaughan, of Washington (*Medical News*, December 7, 1901), has also contributed to the literature of this subject and reports an unsuccessful attempt to close a stab wound of the heart. This patient died shortly after the introduction of a continuous suture.

An unusual and successful case is reported by Watten (*Deutsche med. Woch.*, September 12, 1901). In this case a number of hours elapsed between the receipt of the injury and the operation. The wound in the heart was half an inch in length and was rendered accessible for suturing by the introduction of two traction sutures passed through its edges.

Treatment.—As regards treatment, there is nothing that I can add to what has already and so recently been presented by the writers referred to, but I do join them in urging upon surgeons the most prompt surgical interference in all cases in which a penetrating wound of the heart is diagnosed. After considering the literature of the subject one can but express the belief that the near future will present much that is interesting and instructive in heart surgery, since these cases will no longer be allowed to die without an effort being made to save them.

You will be interested to know that one of the first to urge operation in these apparently fatal injuries was Dr. John B. Roberts, an ex-President of this Society.

A CONTRIBUTION TO THE STUDY OF NEPHRITIS IN SMALLPOX BASED UPON ANALYSES OF URINE IN 128 CASES.

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We have estimated by actual computation that in bad cases of variola there are seated upon the skin from thirty to forty thousand pustules, and that in such cases five or more quarts of pus are contained in the cutaneous covering of the body. Considering the high fever, the serious impairment of skin function and the tremendous septic absorption that accompany cases of severe smallpox, it would be reasonable to suppose that the kidneys would be in danger of injury.

Most of the monographs on smallpox in the various systems of medicine dismiss the subject of renal complications in a few sentences. Curschmann, whose article on smallpox in Ziemssen's *Encyclopedia* is a classic, briefly refers to the subject as follows: "In cases which terminated in hemorrhagic smallpox, I found albumin tolerably constantly and early," and again later on in the article, "In other cases dropsy may be due to chronic nephritis, but this, in my experience, is a rare sequela of smallpox."

J. W. Moore, of Dublin, the author of the article

on smallpox in the Twentieth Century Practice of Medicine, says: "Albuminuria is not infrequent in the acute stages of the severer forms of the disease. This symptom does not necessarily imply the presence of kidney disease, for with the excessive blood changes which occur in bad smallpox no less than in bad typhus, bloodserum may find its way into the urine." He further says: "Acute nephritis is a rare complication, or rather sequela, for it is more likely to occur in convalescence than in the acute stages of the disease." Osler succinctly remarks: "Albuminuria is frequent in smallpox, but true nephritis is rare." Roger (*Les Maladies Infectueuses*, Paris, 1902) writes: "Contrary to what one would expect, albuminuria is not very frequent in smallpox. For the cases terminating in recovery our statistics give 15 per cent. in cases of varioloid, 25 per cent. in discrete variola and 28 per cent. in confluent cases. The albuminuria of itself does not appear to be grave, and usually disappears quite quickly. In fatal cases albuminuria is seldom absent." That excellent French physician and teacher, Trousseau, observed that albumin was frequently found in the urine in smallpox. He says: "Albuminuria is almost as common in confluent smallpox as in scarlet fever. There is this difference, however, that in scarlatina the albuminuria appears during the decline of the disease; in confluent smallpox during the acute period of the disease. Extensive observations by Abeille have shown that in confluent smallpox, as in scarlatina, albuminuria is met with in about one-third of the cases."

The observations which we desire to present are based upon ten hundred and eighty-eight urinary examinations in one hundred and twenty-eight cases of smallpox. The urine was collected in the morning in conical urine glasses, which were each day washed and drained in order to prevent contamination. The specific gravity was determined in the ordinary manner with the urinometer; 524 examinations gave an average specific gravity of 1018. In examining for indican, equal volumes of urine and hydrochloric acid were mixed together, and a concentrated solution of chloride of lime added drop by drop. The presence of indican and the amount thereof both exhibited marked variability. Some cases of severe variola showed a considerable amount of indican, while in others it was absent. The diurnal fluctuations in amount were striking; it was not uncommon to find an abundance one day, and, twenty-four hours later, to note its absence.

In testing for albumin, Heller's contact method, the heat test and Robert's test were employed. The last named gave the most delicate and satisfactory results. Robert's reagent consists of five parts of a filtered saturated solution of Epsom salts with one part of strong nitric acid. This solution is employed in the same manner as nitric acid in the ordinary contact test. Microscopical technique—slides and coverglasses were all carefully washed and kept submerged in alcohol. Each specimen of urine was sedimented in a centrifuge unless there was a satisfactory precipitation in the conical end of the urine glass. Care was taken carefully to cleanse each pipette employed to transfer the sediment to the

slide, in order to preclude the carrying of casts from one specimen to another. In selecting the subject whose urine was to be examined, patients with very mild varioloid, who were scarcely ill, were excluded. The urine was repeatedly examined of 83 patients suffering from variola and of 26 patients with varioloid. Of 83 cases of variola, 66 2-3 per cent. showed albumin some time during the course of the disease. Of 28 cases of varioloid, 60 per cent. showed albumin during the course of the disease. (By varioloid we mean smallpox so modified by vaccination that the secondary fever is slight or absent.)

That the presence of albumin did not indicate merely a febrile albuminuria is evidenced by the fact that casts were found in a considerable proportion of cases. Surprising to relate, the percentage of cases of varioloid in which casts were found is somewhat greater than of variola. Forty-three per cent. of the 83 cases of variola showed casts in the urine, while of the 28 cases of varioloid 50 per cent. showed casts. The comparative frequency of albumin and casts in fatal cases, as contrasted with those that recovered, may be seen from the following figures: Of thirty-eight cases of fatal smallpox, thirty, or 84.47 per cent., showed albuminuria, and 19, or 50 per cent., showed casts. Of 90 cases that recovered, 45, or 50 per cent., had albumin in the urine and 41, or 45.55 per cent., showed casts.

It is of interest to note the period at which albumin and casts first appeared in the urine in these cases.

ALBUMIN IN FATAL CASES.

5th. day or before	16 or 52%
6th. to 10th. day	9 or 29%
11th. to 15th. day	3 or 9.7%
16th. to 20th. day	0 or 0%
After 20th. day	3 or 9.7%

CASTS IN FATAL CASES.

5th. day or before	9 or 47%
6th. to 10th. day	7 or 37%
11th. to 15th. day	1 or 5.5%
16th. to 20th. day	1 or 5.5%
After 20th. day	1 or 5.5%

ALBUMIN IN PATIENTS THAT RECOVERED.

5th. day or before	24 or 53.5%
6th. to 10th. day	12 or 26.6%
11th. to 15th. day	4 or 8.6%
16th. to 20th. day	4 or 8.6%
After 20th. day	1 or 2.2%

CASTS IN PATIENTS THAT RECOVERED.

5th. day or before	11 or 26.8%
6th. to 10th. day	16 or 39%
11th. to 15th. day	7 or 17.1%
16th. to 20th. day	5 or 12.2%
After 20th. day	2 or 4.8%

It will be seen from the above tables that, when albumin is found in the urine, it usually appears early. In over half of the cases in which it was present it was first discovered on or before the fifth day of the eruption. The onset of albuminuria seemed to be about the same in fatal cases as in cases ending in recovery. Tube casts, when present, were also found comparatively early. The tables would indicate that in fatal cases they are present at an early period in a larger percentage of cases than in favorable cases. We desire to point out the fact that albumin and casts, singly and together, may first appear in the urine late in

the course of the disease, even when convalescence is established.

Another observation of interest is that the urine from day to day will exhibit striking differences. It will be seen from the appended report of cases that albumin and casts were not present daily from the time of first appearance, but at irregular periods. For instance, in some cases the urine would contain albumin and casts for several consecutive days, then, perhaps, on alternate days, and then the urine might be free from these for a week or thereabouts, suffering a return a few days later.

It is evident that a single examination of the urine under such conditions might readily fail to detect the presence of the abnormal urinary constituents. The persistence of albumin and casts in the urine was also most variable. In some cases they would be present only for a few days and then disappear permanently. In other cases they would persist for two or three weeks or even longer. In at least two cases, both suffering from smallpox with discrete eruptions, tube casts were present in the urine when the patients were discharged from the hospital. Both of these patients were young men and had not had, to their knowledge, any antecedent kidney disease.

It was not uncommon for tube casts to precede the presence of albumin in the urine and to persist after its disappearance. Indeed, in seven cases casts were found in the urine when albumin was absent. This observation demonstrates the inadequacy of the albumin test in determining the presence of disease of the kidneys, and emphasizes the importance of examining the urinary sediment under the microscope.

The occurrence of uremic seizures in smallpox is extremely uncommon. Convulsions, except during the initial stage, are rarely met with. We recall, however, the case of a young physician who, during convalescence from a severe attack of smallpox, at a time when he was out of bed and had returned to full diet, developed violent convulsions on two consecutive days. The urine reacted negatively to the ordinary tests for albumin, and the patient made a good recovery. In the light of the investigations presently to be quoted, we think it is possible that the convulsions may have been of renal origin. To what extent the condition of the kidneys may contribute to the coma that is not infrequently observed in bad cases of confluent smallpox is a question difficult of solution. Edema of the lower extremities is frequently seen during convalescence, but this may be, in at least some measure, attributed to other causes. It may in general be stated that the clinical manifestations of variolous nephritis are much less conspicuous than those characterizing this complication in scarlet fever.

Since completing our investigations on the urine in variola, an interesting and comprehensive study by François Arnaud (*Révue de Médecine*, 1898, 18, page 392) has come to our notice. Arnaud made 1,248 urinary examinations in 400 cases of smallpox. He states that 95.3 per cent. of these patients had albuminuria. The cases were classified according to the amount of albumin present, into abundant, moderate, slight and minimal albuminuria

a. Abundant albuminuria (above 50 gm. to the liter)	36 cases or 9%
b. Moderate albuminuria (20 to 50 gm. to the liter)	91 cases or 22.75%
c. Slight albuminuria (.05 to 20 gm. to the liter)	145 cases or 36.25%
d. Minimal albuminuria (.005 to .05 gm. to the liter)	109 cases or 27.25%
e. Absent	19 cases or 4.75%

400

Arnaud employed delicate reagents (Millard's test and the sulphate of soda test) to determine the presence of the minutest quantities of albumin. Other investigators have obtained results which vary greatly. It is evident that the figures would be markedly influenced by the number of examinations made and the delicacy of the tests.

Lyons found albumin, 1 in 50 cases, 2%.

Bourru (Thèse de Paris, 1874), 15 in 79 cases, 18.9%.

Couillaut (Thèse de Paris, 1881-2), 42 in 114 cases, 38.8%.

Bourgin (Thèse de Lyon, 1885), 77 in 214 cases, 36%.

Robin (Bull. de L'Acad. de Méd. 1888, xx), 50%.

Roger (Maladies Infectueuses, Paris, 1902), 11 in 38 cases, 28.95%.

Arnaud remarks upon the daily variations in the amount and in the presence of albumin, and counsels repeated examinations. He furthermore states that albuminuria persisted after convalescence in 75 per cent. of his cases. In other words, three-quarters of the patients, when convalescent, still had albumin in the urine, to be sure in minimal quantities in most cases. He reports two cases of sudden uremia coming on during convalescence. One was in a woman, 35 years old, who had only a smallpox of moderate severity. On the ninth, tenth and eleventh days no albumin was discoverable by the heat and acid tests, but a minute quantity was shown to be present by Millard's test and the sulphate of soda. The albuminuria was so slight that the patient was kept upon the ordinary diet. On the twelfth day albumin became appreciable to the usual tests, and the urine decreased in quantity. The patient was immediately placed on a milk diet and carefully treated, but developed marked uremic symptoms and died on the twenty-second day of the disease.

Arnaud frequently noted an increase in the amount of albumin in the urine when the patient first rose from bed and when solid food was first permitted. He contends that variolous albuminuria, like most albuminurias accompanying infectious diseases, is not simply functional, but is related to a structural alteration in the kidneys. In proof of this he cites the results of histological examination of the kidney in 13 cases of smallpox.

He found even in cases of minimal albuminuria marked pathological changes in the kidney structure. These organs, examined in the acute stages, even in the absence of clinical manifestations of nephritis, presented a constant alteration. The changes were, briefly, of two types; first, an interstitial cell infiltration and, secondly, lesions of the epithelium of the tubules. Albuminuria is slight when the interstitial changes are found, and more abundant when the epithelium is involved. Arnaud believes that in light cases the kidneys may entirely recover, but in most instances a renal defect is left, which, though compatible with a satisfactory physiological

state, may under certain conditions be awakened or brought into evidence. Pregnancy, muscular fatigue, alimentation, digestive troubles, etc., may thus excite albuminurias which are often spoken of as physiological, cyclical or intermittent, but which represent in reality a re-awakening of a process which had its origin perhaps in some infectious disease.

The results of our investigation agree in the main with those obtained by Arnaud. Arnaud admits that the urine showing minimal albuminuria (.005 to .05 grams to the liter) will not react positively to the ordinary tests for albumin. If, therefore, these cases are eliminated, the percentage of cases showing albuminuria which he found would be reduced from 95 per cent. to 68 per cent. Inasmuch as we found albuminuria in 65 per cent. of the cases examined, it will be seen that the figures correspond very closely. Arnaud examined the urine of 400 patients and averaged three examinations to the patient. We made analyses in 128 patients and averaged nine examinations to the patient. Arnaud made no microscopical examination of the urinary sediment, but did carefully examine the kidney histologically in thirteen cases. It will thus be seen that the two studies in a measure supplement each other and permit us to draw the following conclusions:

Conclusions.

1. Albuminuria is more common in smallpox than is generally believed, having been present in 65 per cent. of the cases examined. The fact that tube casts were found in 45 per cent. of the cases warrants the assertion that the albuminuria in most cases is the expression of a structural change in the kidneys.

2. Cases of discrete variola and well-marked varioloid have, in our experience, been accompanied with nephritis almost as often as cases with more profuse eruptions. This would suggest that the kidney involvement is the result of the influence of the smallpox poison.

3. The daily fluctuation in the presence of the abnormal urinary constituents necessitates repeated examinations in order to avoid misleading results. Microscopical examinations of the sediment will frequently reveal the presence of tube casts when albumin is not present in quantities demonstrable by the ordinary tests.

4. The clinical symptoms of variolous nephritis are, as a rule, mild and by no means as obvious as those observed in scarlatinal nephritis.

5. Arnaud's investigation demonstrates that albumin may persist in the urine in minute quantities after convalescence from smallpox. This occurred in 75 per cent. of his cases. The histological examination of the kidney would indicate that this minimal albuminuria represents interstitial changes in the kidney.

6. If it be true that the albuminuria accompanying infectious diseases is, in large part, the expression of a structural change in the kidneys, is it not probable that the damage thus done may, if unrecognized and uncared for, insidiously eventuate in chronic Bright's disease?

7. The practical lesson which is contained in this

proposition is that the urine of patients convalescent from infectious diseases should be carefully and repeatedly examined and the diet and mode of life of the patient regulated accordingly.

THE AUTOBIOGRAPHY OF A VICTIM OF CHRONIC CATARRHAL APPENDICITIS.

By FREDERICK A. RUPP, M. D.,

of Lancaster, Pa.

Many articles have recently appeared in the various medical journals on the very interesting subject of appendicitis. The operation upon King Edward VII has added greater interest to this subject and has offered an unusual opportunity for contrasting the methods of our own American surgeons, than whom there are none better, and the surgeons of the foreign clinics. The King's operation, through the various descriptive articles, both in the medical journals and the newspapers, has served also another good purpose, that of offering some intelligence upon this subject to an ignorant, yet receptive, public; consequently it is now quite common to hear appendicitis and perityphlitis discussed in social as well as in medical circles, in the trolley car as well as in the meeting-room of the county medical society. In fact, one writer has dared to suggest even that appendicectomy will become the fashion, it having the sanction and the approval of the King, the prince of fashion. However, we need not be alarmed that a long suffering public, already heavily trammelled by fashion, will unnecessarily follow the King in this respect.

Whereas many articles have been written on appendicitis, by as many writers, discussing it from different points of view, yet the writer does not remember reading an article written by a victim of this very prevalent disease. Discussing it, therefore, from the standpoint of personal experience, it is with this phase of the subject that this brief article will deal. Even as this paper is being written, there stands near the writer a little bottle containing his appendix—a very innocent looking specimen, indeed. It is dried up, shrunken in appearance, not at all indicative of all the excruciating pain, the suffering and inconvenience, the loss of flesh and strength, for which it must stand responsible. The reader will pardon the writer for using the first person in the course of this paper, but the editorial *we* will hardly be sufficient to describe to the readers of this journal such personal experiences.

The struggle with my appendix began at about the age of fifteen years, when, so far as I was concerned, nothing was known either about the appendix itself or appendicitis. Victims of this monster, the diseased appendix, were no doubt still dying by the hundreds of inflammation of the bowels, cholera morbus or allied diseases. There is nothing peculiar about my own personal case of appendicitis, except probably the peculiarity that I managed to survive five acute attacks of this exceedingly painful, treacherous and death-dealing disease, thanks to a kind Providence, rather than to my medical attendants, whose treatment consisted for the most part in mustard plasters and morphine—a good combination, but not for appendicitis. I knew

nothing about appendicitis, neither did my attendants, for that matter; but I did know enough to realize that something was wrong, something that should not be, and something more than the ordinary "green-apple colic"; the latter, as a rule, would not confine me to bed for a week or more.

Probably I can best describe my feelings during my acute attacks by quoting from my case-book, in which I am the only patient recorded. In looking over my diary, covering the two years in which my five acute attacks of appendicitis occurred, I find the following rather interesting records. It was as a public school teacher, when as yet my mind was not disturbed by medical lore, that I suffered my first acute attack. In my record for February 21, 1893, I read that I had had a "genuine case of the grip," that I began to feel better toward the latter part of the week, but that "on Sunday night I got an attack of *something* in my stomach"—in those early days I evidently did not make a careful distinction between stomach and abdomen. This "something" confined me to bed for a week. My appendix now having entered the domain of pathology, my next year was rendered uncomfortable by recurring attacks, each attack becoming more severe. Under the date of June 30, 1894, I recorded the following, this being the record of my last acute attack: "Last Saturday afternoon (just one week before) I became sick, going to bed shortly after supper. On Sunday morning I had a severe chill and became distinctly worse. Had a terrible—and I remember that it was terrible—pain in the *lower side of my stomach*." My readers will notice that in this record I attempted to localize the pain, though a feeble attempt at localization. As I remember it now, the pain was in the appendiceal region; at least, it was there that the hot-water bag was applied. Made a good recovery after a week's illness. It was after this, the fifth attack, that I was strictly enjoined not to swallow grape-seeds, and I obeyed that command to the very letter, believing that the swallowing of one seed meant sure death.

During the period of time from 1894 until the present time I was peculiarly free from acute attacks, though, as my attacks had numbered five, my experience in that direction fully warrants me in saying that the individual is fortunate, indeed, who is spared the intense pain that accompanies acute appendicitis. During these latter eight years I was occupied with my classical and medical courses and my hospital training, probably having no time to be laid up with appendicitis. As I advanced in my medical studies and learned that that functionless little organ, the appendix, was located in the "lower side of the stomach," and that inflammation of that organ would cause severe pain, I was gradually forced to diagnose my past trouble as appendicitis; also, from my general health during the past eight years, I felt reasonably certain that my appendix had assumed a chronic catarrhal condition, bound down in all probability by inflammatory adhesions. The symptoms which led me to such a conclusion were various, such as vague aching pain in the right iliac region; severe colicky pain of a few minutes' duration following the ingestion of rich pastry, which pain was relieved only after a watery bowel movement, all rich foods thus apparently act-

ing as intestinal irritants; a pulling or drawing sensation upon taking long strides; general health, as a rule, was below par; appetite was generally good, though the food was not properly assimilated, as the irregularity of the bowels seemed to indicate.

Such, then, was the condition which forced me to the conclusion that my appendix must be in a somewhat dangerous condition, and the treacherous nature of a diseased appendix was impressed upon me during my hospital training, when it was a familiar sight to see cases of septic peritonitis resulting from perforated, gangrenous appendices, brought to the hospital too late for operation, brought in time only to die and to add another to the hospital's mortality, the hospital thus getting the credit, or rather discredit, for some doctor's tardiness or negligence. It was not my ambition to play the role of a patient with such a condition, and realizing that here especially "a stitch in time saves nine," I had myself examined by a friend, a surgeon. This examination was given when I felt in average good health; deep palpation elicited a slight pain over McBurney's point, the pain radiating toward the umbilicus; this was not so much a pain as a peculiar pulling sensation. The advice given was naturally the removal of my appendix. My consent to operation was given, prompted by past history of five acute attacks of appendicitis, even though I had no attack during the last eight years; prompted, too, I must acknowledge, by a curiosity to know the condition of my appendix.

The operation was performed June 17, 1902. A brief account of the operation and of the pathology of the appendix is given below by the operator, Dr. Delno E. Kercher, to whom I am very grateful, not only for his kind services in this case but also for his many words of instruction and acts of kindness during my service as resident physician to the hospital with which he was connected.

My convalescence was absolutely uncomplicated, unless pain can be considered a complication, for of that there was quite sufficient to satisfy the curiosity of any ambitious seeker after science. One can properly appreciate the pain and discomfort resulting from an operation only by actual experience; I am not sure but that such an experience, as a necessary qualification for a medical diploma, would be of marked benefit to each individual member of the profession; it may lessen the number of the medical fraternity, but it would surely tend to make those who remain steadfast more sympathetic with their cases of abdominal section. At least that was my experience, for my surgeon, who had his appendix removed seven months before my operation, was willing to allow me to be turned on my side at the end of the first six hours, himself knowing how exceedingly uncomfortable and monotonous it becomes to lie on the back for any great length of time after an operation. Another of the many discomforts after a laparotomy, as I learned, is the extreme difficulty of urination. The urinal was provided—according to routine—about eight hours after the operation, with the request that I try to use it; I employed every effort for fifteen minutes with no success, then for another half-hour with the same result. I then began to have visions of the catheter, with a probable resulting cystitis; but my troubles

were great enough, and remembering the advice given to me, when serving in the hospital, by my medical chief, Dr. J. Hendrie Lloyd, that in such cases I should not use the catheter, if possible to avoid it, I practised his advice upon myself, refused the catheter and after almost one and a half hour's trial I succeeded in emptying my bladder; I was confident, therefore, of my ability to avoid future catheterization. The pain of the first twenty-four hours was severe, but the colicky pain of the second twenty-four hours was even worse; cannon-balls and sharp-edged tools were running riot within the narrow confines of the bowels, and relief came only after the usual routine enema was given. Then I began to feel fairly comfortable and began again to take an interest in things other than my own troubles, such as the operation upon the King, which followed my operation by about five days. My recovery was uneventful; maximum temperature, $99.3-5^{\circ}$, and the highest pulse 88.

This is the history, then, I believe, of every case of acute appendicitis, with the inevitable result, that of operation, if, indeed, the victim is fortunate enough to reach the operating-table before his abdomen is full of pus; how I escaped such a termination is more than I shall attempt to say, but probably, if I had tempted fate much longer, my history would have had a different ending.

The account of the operation that follows is from the pen of my operator, Dr. Kercher:

Under ether an incision one and a half inches long was made in the skin about 3 inches internal to the right iliac spine. The tissues beneath the skin were separated in the direction of their fibers. The base of the appendix was found rather nearer to the median line of the body than usual, and it was firmly bound down by thin but strong adhesions. After freeing adhesions, the appendix and caput coli were easily delivered through the incision. The artery of the appendix with its mesentery was ligated with fine chromicized catgut and divided. With a roundpointed needle and fine silk a purse-string suture was placed around the base of the appendix and another purse-string was placed in the head of the colon about one-third distant from the first. The appendix was then cut off one-fourth from its colonic attachment, the lumen cauterized with pure carbolic acid, and the stump inverted into the cecum. The first purse-string was tied, completely closing the opening in the bowel. As an extra precaution the outer purse-string was tied, infolding the base of the appendix and the first ligature. The parietal wound was closed in layers, fine cumol gut in the peritoneum, fine chromicized catgut in muscles and fasciæ, and silver wire subcuticular for skin. The appendix was only one and three-quarters inches long. The distal end larger than the proximal and distinctly indurated. The median third was the site of a stricture narrowing the appendix to a diameter of one-tenth of an inch and obliterating the lumen. Recovery uneventful and cicatrix neither tender nor conspicuous.

Now, as to the result. Was I justified in having the operation performed? Sufficient time has not elapsed since the performance of my operation to note any miraculous improvement, and yet from a general observation I do not hesitate to answer that question most emphatically in the affirmative. The risks incurred from an operation cannot be compared with the risks involved in retaining such a pathological specimen as mine proved to be in one's abdominal cavity. Six weeks after my operation I tested the assimilating powers of my alimentary tract by eating some very rich pastry, and found that I could digest it without the disagreeable after-effects which accompanied the same feat before the

operation. Neither am I worried by the suggestion of a friend that in future years the function of the appendix might be revealed, and then I should wish mine back. Whatever the function of the appendix may be, mine, bound down and constricted by adhesions, surely had no function, and I am better off without such a useless pathological appendage. In conclusion, I shall say that, despite the fact that the initiation is not the most pleasant, I willingly enroll myself a member of that fraternity of appendixless individuals whose number is legion and daily increasing.

REPORT OF A CASE OF SEPTICEMIA, AS I FELT IT MYSELF.*

By J. C. NEWMAN, M. D.,
of Helenwood, Tenn.

Perhaps some of the profession will think that it would have been better, or looked nicer or more professional, if some one of the five physicians who attended me would have reported this case. That might be so, but one thing I do know—no one can describe my feelings more thoroughly than I can myself.

I have never read of a case that I can refer to as a parallel in the sixteen years of my practice. I have treated many cases, both simple and complicated septicemia, and, in my description of my own case, I will ask my fellow-practitioners to be as light in their criticism as possible.

During the season of 1901 there was quite an epidemic of scarlatina of a malignant form in this country, and I had some twenty cases in charge. On the 12th. of August, 1901, I got a scratch on the back of my hand but paid no attention to it, as usual. On the 14th. I was called to see a new case of scarlatina, in which the eruption below both knees had coalesced, forming a solid shield to the ankles. I forgot all about my scratched hand and in the course of the examination it came in contact with the inflamed surface. The patient lived some two miles away from my office and before I got back home my hand was paining me very badly. Next morning it was swollen to twice the normal size. With a thorough cleaning with peroxide and a few applications of antiphlogistine the inflammation soon subsided, it quickly healed up, and I thought no more about it. On the 27th. of the same month I made a trip of some sixteen miles on horseback, and before I returned I began to have severe throbbing pains on the left side of the rectum. The next day the pain was more intense. I retired about 8 P. M., and about 10 P. M. I was awakened with the most intense throbbing pain on the left side of the rectum I ever experienced. I endured it till after 12 o'clock, when I got a hypodermic injection of morphine. This gave me some relief for 6 or 8 hours. I sent for Dr. J. E. George, of Rockwood, Tennessee, who arrived the next morning, but I knew nothing of his coming and going for the next ten days. I give his report for the first ten days: "Temperature ranged from 101° to 104° ; marked peritonitis; profuse discharge of pus from an opening one-half an inch to the left of the rectum. Another incision was made

*Read before the Tri-State Medical Society, in session at Birmingham, Ala., Oct. 7, 8, and 9, 1902.

one-half an inch in front of the rectum and to the left of the perineum; on the eleventh day the delirium subsided." The free discharge of pus continued and required dressing four to six times a day. Temperature ranged from 99° to 100°. By the 18th. of September there was complete induration of all the muscles of the abdomen between the umbilicus and the pubic bones, which were tender and painful all the time. Later on we discovered that by pressing on these abdominal muscles the discharge of pus was increased, and further observation disclosed the fact that a sinus or channel had been formed through the fascia and passed into the left groin, midway between the crest of the ilium and the pubic bone, and discharged as above described. This discharge of pus from the rectum continued for nine weeks and four days. I insisted that there was a pus sac between the muscles, and repeatedly asked the doctors to make an incision to the left of the median line and above McBurney's point and to wash it out. They all argued me down that there was no pus there. As the induration subsided, a soft gelatinous mass appeared and finally "headed up" on the median line between the umbilicus and the pubic bone, and, Saturday morning, after sixty-eight days, burst, discharging one and one-half pints of the most offensive pus I ever smelled. No sooner had this opening appeared than the two openings at the rectum closed and ceased to exist. This abdominal opening discharged pus freely for four days, when it closed. There was no more discharge for about ten days, when at the same place there appeared a "pimple formation." I opened this myself, and there was another profuse discharge for three days, after which a sudden stop. About eight days after this I felt a fluctuation in the left iliac region. When I rose, or suddenly turned in the bed, it felt like a soft lump falling to the side on which I turned. Fearing there might be a rupture of the sac into the abdominal cavity, and no physician near, I got on the train on November 21, 1901, and went to the University Hospital at Louisville, Kentucky, and there I was subjected to a rigid examination, including a microscopical examination of the blood for leukocytosis, also urine analysis, and I was informed that neither showed any evidence of pus. I insisted on an operation, for I knew that pus did exist—for I could feel it. On November 25, 1901, the operation was made without the use of an anesthetic. The incision was made in the median line between the umbilicus and the pubic bone. A thick, yellowish, mucopurulent discharge was all; but with the first dressing there was considerable pus. I left the hospital on the 6th. of December. The discharge continued for about eight weeks. There is yet more or less soreness of all these muscles, and, when I ride much now, they are quite tender and painful. On the 15th. and 16th. of this month, September, 1902, there was a discharge of pus at the old opening, perhaps two drams. The examination of the blood showed a deficiency of the red corpuscles.

The treatment before going to the hospital was principally with iron, quinine and strychnine, the

hypophosphites and cathartics. I am sorry to say that the treatment they gave me at the hospital I have forgotten, except about ten days, my appetite was extra good and I ate almost anything I wanted to.

When I was taken sick I weighed 227 pounds; when I went to Louisville I weighed 150 pounds. I was unable to attend to any business until the latter part of March.

After the rupture on the 68th. day my temperature dropped to 95 4-5°, and it was long afterward before it rose to normal again. Even to this day, over a year since the trouble began, it is oftener below normal than otherwise. Two or three days' regular riding will lay me up for five or six days.

About a week after I came back from the hospital two hemorrhoidal tumors appeared, each about three-quarters of an inch in diameter. I was never bothered with anything of that kind before in my life, nor have there been any indications of their return since being removed, about five or six months ago.

The abdominal muscles have never become sound, and I am beginning to think they never will again.

In plain and unvarnished terms, I have tried to describe my infirmities, and for what I have left out I respectfully refer the reader to Dr. J. E. George, of Rockwood, Tennessee, and Dr. J. I. Foster, of Huntsville, Tennessee, for further details, as they were with me oftener than any one else.

What was the cause of this trouble settling in the muscles of the lower abdomen? Why does my temperature continue subnormal?

I am thirty-four years old and never had any previous sickness, except a little case of fever when I was about nine years old. My present weight is about 176 pounds.

The Treatment of Enuresis.—Karl Walko discusses the treatment of enuresis in the *Zeitschrift für diätetische und physikalische Therapie* for September, 1902. He reports 10 cases of pure idiopathic enuresis cured by massage of the neck of the bladder. The massage is given bi-manually, one hand being placed anteriorly above the pubis, the index finger of the other being inserted into the rectum. One or 2 such treatments caused permanent recovery. Good effects, though temporary, also followed its use in epileptic enuresis, enuresis with cystitis, traumatic and hysterical enuresis. In a few cases suggestion and hypnotism caused a cure. The subject is fully discussed and the literature quoted.

[M. O.]

A Case of the Insanity of Hunger.—In the *Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris* (July 31, 1902), de Massary and Civatte report an interesting case, in a woman of 40, apparently robust and well. She was rather stout and showed some dropsy. Her father and brother had diabetes. She had been ill for 6 years, with weakness, pains in the extremities, and excessive hunger, especially for meat, from time to time. She would not touch fat or sugar. Urine examination showed a greatly increased elimination of nitrogen. She would improve after an attack of 3 or 4 weeks duration, only to suffer another attack later. While in the hospital, slightly increased diuresis and an increase in the urea excretion and the elimination of phosphates and chlorides were noted. No albumin was ever found. The increase in the elimination of nitrogen was evidently due to the polyphagia.

[M. O.]

CONCLUSIONS AS REGARDS THE EXSANGUINATED
UTERINE ZONES.

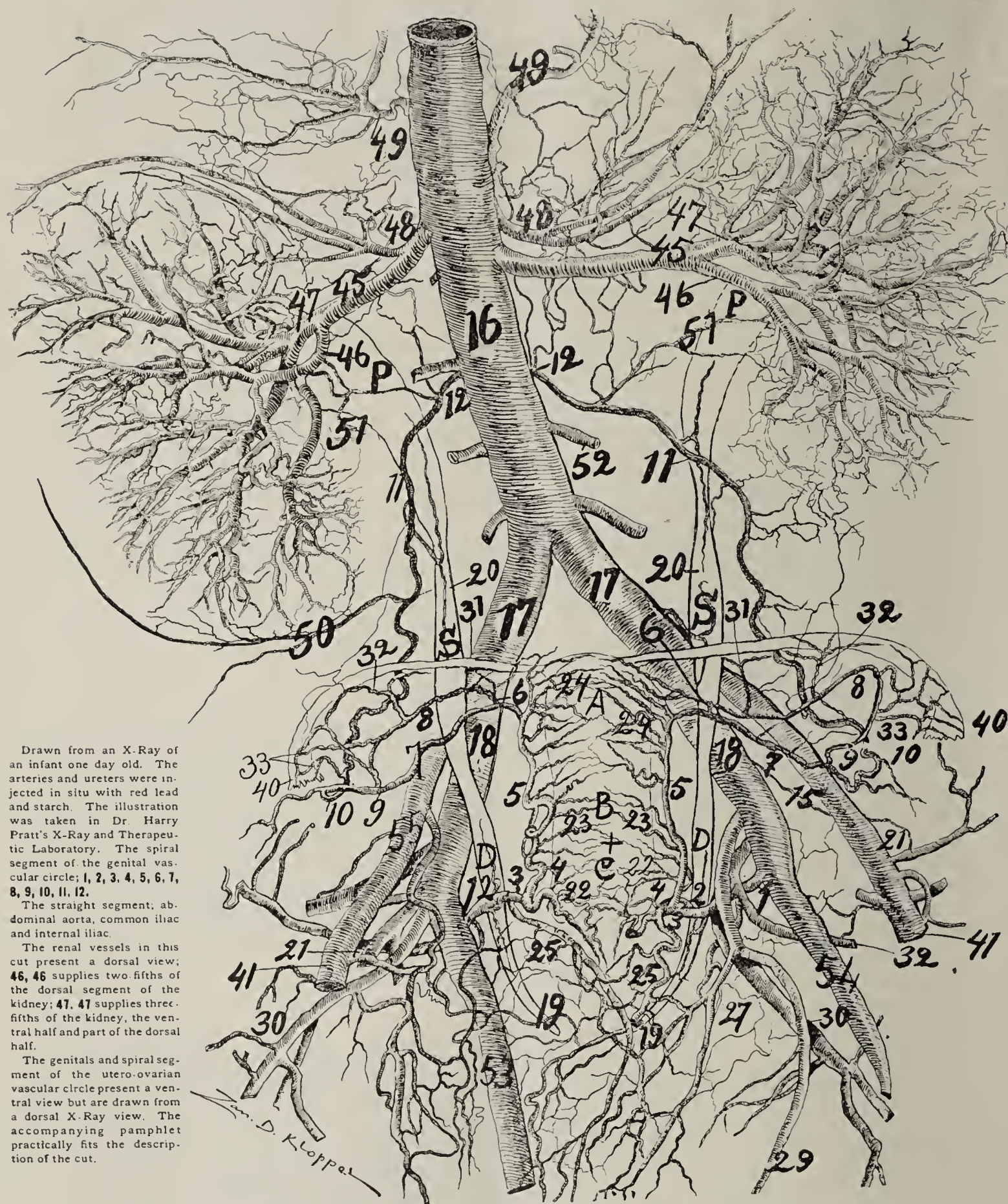
By BYRON ROBINSON, B. S., M. D.,
of Chicago,

1. An exsanguinated or bloodless zone of the uterus is a territory which is supplied almost entirely by capillaries or arterioles. It is an area which

incised in the resting uterus would not cause fatal hemorrhage.

The line of coalescence of the distal periphery of the rami laterales uteri, or the divergence of the rami laterales uteri, from the uterine trunk segment is what constitutes the exsanguinated uterine zones.

2. The bloodless uterine zones are due to: (a)



Drawn from an X-Ray of an infant one day old. The arteries and ureters were injected in situ with red lead and starch. The illustration was taken in Dr. Harry Pratt's X-Ray and Therapeutic Laboratory. The spiral segment of the genital vascular circle; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.

The straight segment; abdominal aorta, common iliac and internal iliac.

The renal vessels in this cut present a dorsal view; 46, 46 supplies two fifths of the dorsal segment of the kidney; 47, 47 supplies three fifths of the kidney, the ventral half and part of the dorsal half.

The genitals and spiral segment of the utero-ovarian vascular circle present a ventral view but are drawn from a dorsal X-Ray view. The accompanying pamphlet practically fits the description of the cut.

The Utero-Ovarian Vascular Circle. (The Circle of Byron Robinson)

FIG. 1 (author).—Infant one day old. Demonstrating the longitudinal exsanguinated uterine zone. (A, B, C.) Also the lateral cervical and fundal exsanguinated uterine zones.



A nullipara, 22 years old. Drawn from an X-Ray taken in Dr. Harry Pratt's X-Ray Laboratory.

The ureters, (19, 20,) and utero-ovarian artery were injected with red lead and starch.

The utero-ovarian artery not having experienced gestation is not completely developed.

The spiral segment; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.

The straight segment; abdominal aorta, 16, common iliac, 17, internal iliac.

The accompanying pamphlet practically fits the description.

The Utero-Ovarian Vascular Circle. (The Circle of Byron Robinson.)

FIG. 2 (author).—A, B, C, represents the central longitudinal exsanguinated zone of the uterus in a 22-year-old nullipara. 4, 5, 13, the uterine segment of uterine artery. 22, 23 and 24, rami laterales uteri.

defective or limited coalescence of the rami laterales uteri; (b) to dichotomous divisions of the rami laterales uteri; (c) to the space or amount of separation between the rami laterales uteri.

The Bilateral Exsanguinated Cervical Zone.

3. The most important exsanguinated uterine zone is found on the lateral borders of the cervix, due to the dichotomous divisions of the ramus cervicis uteri. This zone is frequently lacerated in parturition or instrumentation, but if the cervical branch or its arms are not torn the hemorrhage is limited.

The Central Longitudinal Exsanguinated Uterine Zone.

4. This zone lies in the central longitudinal axis of the uterus, at the middle anastomoses of the rami laterales uteri. In the resting uterus this zone can be bisected longitudinally with nonfatal hemorrhage. Its bisection would be dangerous in the menstruating uterus and no doubt fatal in the gestating or

puerperal uterus. This is the most useful exsanguinated zone in surgical intervention on the uterus. The author's operation of endometrectomy and partial myometrectomy, is founded on this zone. Also myomata may be extirpated from this zone.

The Fundal Exsanguinated Uterine Zone.

5. This zone is an oval-shaped space, situated on the proximal central fundus. It is especially useful in Cesarean section, in myomectomy and in longitudinal bisection of the uterus.

The Cervicocorporal Exsanguinated Zone.

6. This exsanguinated or bloodless territory is located at the junction of cervix and corpus uteri. It lies between the ramus cervicis uteri and the distal ramus corporis uteri. It is most distinct during gestation. It is useful in longitudinal bisection of the uterus, in amputation of the uterus at the os uteri internum, per vaginam or per abdomen.

7. The utility of a knowledge of exsanguinated or bloodless uterine zones is to indicate localities of appropriate surgical intervention.

II. CONCLUSIONS AS REGARDS THE ANASTOMOSES OF THE RAMI LATERALES UTERI.

Experiment No. 1.—An injection of red lead and starch into the right common iliac artery, rapidly passed through a 29 year old nulliparous uterus, appearing in considerable quantities in the left common iliac artery within a minute.

Experiment No. 2.—An injection of red lead and starch into the right common iliac artery of a puerperal uterus, 6 hours post partum, appeared in the left common iliac and abdominal aorta in large quantities within one minute. In fact, the arteries of the right side of the uterus in this case could not be

fully distended, without first fully injecting those of the left side. Practically we could completely inject the uterus bilaterally from one of the common iliac arteries, if a ligature was placed on the opposite common iliac artery.

Experiment No. 3.—An injection of celluloidine in the right common iliac artery passed through a puerperal uterus (pregnant 3 months), 6 days post abortem and 36 hours post mortem in abundant quantities, appearing in the opposite common iliac within one minute.

Experiment No. 4.—During the injections of pregnant uteri (post partum), the transverse and



The Utero-Ovarian Vascular Circle. (The Circle of Byron Robinson.)

FIG. 3 (author).—22, 23 and 24, represents the central longitudinal exsanguinated zone of the uterus in a multipara, 32 years old. 4, 5, 6 is the uterine segment of the utero-ovarian artery



FIG. 4 (author).—Perpendicularly transverse sections of the multiparous uterus. demonstrating the circulation in each segment. It shows the lateral cervical exsanguinated zone, due to the vascular bootjack angle, formed by the dichotomous division of the ramus cervicis uteri.

longitudinal anastomoses could be observed developing under the eye. The red lead and starch injection may be noticed distending the superficial rami laterales uteri, the uterus becoming more erect as the vessels become distended.

Experiment No. 5.—The above with other experiments on animals demonstrate that the rami laterales genitalis are solidly and compactly anastomosed in the infant, adult, nulliparous, pregnant and puerperal uterus. The nulliparous anastomosis is much finer than that of the pregnant uterus, while

the anastomosis of the infant uterus is exceedingly fine in the exsanguinated uterine zones.

The arteria uterina ovarica with its rami laterales can be beautifully demonstrated by injecting the vessels with melted paraffin, after which the specimen is placed in HCl or HNO₃ for several days, or until the tissues are corroded from the solid paraffin, whence the vessels will appear in accurate position. Corrosion anatomy of the visceral vessels is the most accurate and instructive of all forms of anatomy. (For other cuts see pages 648 and 649.)



The Utero-Ovarian Vascular Circle. (THE CIRCLE OF BYRON ROBINSON)

FIG. 5 (author)—Represents the central longitudinal exsanguinated uterine zone A, B, C. Uterus pregnant 3 months. At 22 the lateral cervical exsanguinated zone is observed, formed by the dichotomous divisions of the ramus cervicis, one branch passing dorsal to the cervix and the other ventral to the cervix. 22. It makes a distinct vascular bootjack angle. The left side of the uterus was dissected, while the right was X-rayed. 4, 5, 6, the uterine segment of the utero-ovarian artery. 19, 19 distal orifices, of uterus. 2, 3, 4, cervical loop. All the cuts were X-rayed in Dr. Harry Pratt's X-ray and electrotherapeutic laboratory.

Raynaud's Disease Complicating Typhoid Fever.—Follet (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 31, 1902) reports the case of a woman of 25, who had typhoid fever with 3 relapses. The original attack lasted 22 days; the relapses 25, 21 and 18 days. Her temperature was excessively high in the original attack and in the last relapse. Pain with edema appeared in all extremities during the first relapse, and lasted until convalescence, with some muscular atrophy. Her skin became cold and cyanotic, with areas of superficial gangrene, due to local asphyxia. This cyanosis would appear at different parts of the body from time to time, besides. It was due to cardiovascular asthenia. But there was neither endocarditis nor myocarditis. The symptoms were probably due to polyneuritis. In spite of this, the cold bath treatment was continued. Follet wonders whether the symptoms were not due to the typhoid infection alone.

[M. O.]

Alopecia Areata of Dental Origin.—Jacquet (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 24, 1902) reports a case of alopecia areata on the left side of the head and neck, left-sided latent facial neuralgia,

hyperesthesia of the entire left side of the body and the eruption of the wisdom tooth, the third molar in the left side of the lower jaw, the cause of great pain. The first symptom was left-sided angina. The patient, a boy of 18, had an earlier attack of alopecia 4 years previously, from which he recovered in 6 months. With the eruption of the wisdom tooth, the above mentioned symptoms developed. The case-history follows in detail.

[M. O.]

Hysterical Edema of the Larynx.—Galzin (*Archives de Médecine et de Pharmacie Militaires*, September, 1902) has reported a rare case of hysterical edema of the larynx, in a soldier aged 21 years, of neurotic ancestry. He often had attacks of colic, with vomiting and constipation, and had noted swellings on the extremities. The attack of laryngeal edema came on suddenly, with swelling and marked dyspnea. Upon inhalations of steam and compound tincture of benzoin his condition improved. But no cause for the attack could be found. On the third day, however, a subaponeurotic swelling appeared upon his arm. This proved to be a localized area of congestive edema. The

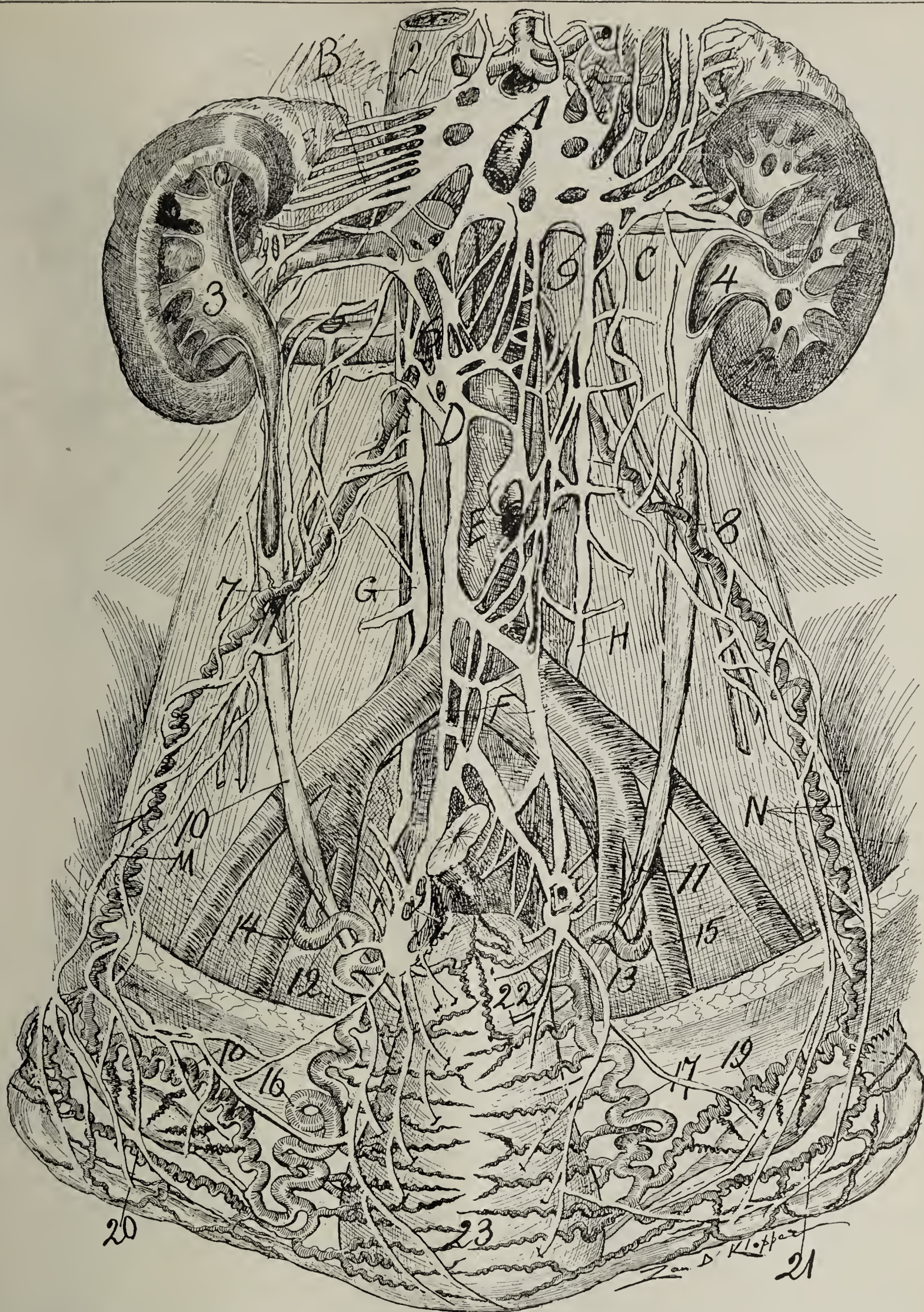


FIG. 6 (author) Represents the circle of author with sympathetic nerve, with course of ureters and central longitudinal exsanguinated uterine zone (23) of a subject pregnant about 3 months. Uterus is drawn distalward in order to expose its dorsal surface.

probability of the condition being hysterical was suggested, and this diagnosis was confirmed by the presence of cutaneous dysesthesia and the absence of the knee jerks and the conjunctival reflex. Similar swellings followed.

There was no fever at any time. Seven months later he had another attack of edema of the larynx, also without any special cause. He recovered rapidly.

[M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the weeks ending October 18 and 25 1902.

SMALLPOX—United States.

		Cases.	Deaths.
CALIFORNIA:	San Francisco.	Sept. 28-Oct. 5 .11	
COLORADO:	Denver.	Sept. 27-Oct. 4 .1	
ILLINOIS:	Chicago.	Oct. 4-11.13	
	Freeport.	Oct. 4-11.7	
INDIANA:	South Bend.	Oct. 4-11.2	2
MICHIGAN:	Detroit.	Oct. 4-11.7	1
NEW HAMPSHIRE	Nashua.	Oct. 4-11.23	
NEW JERSEY:	Elizabeth.	Aug. 31-Oct. 11 .9	4
NEW YORK:	Binghamton.	Oct. 4-11.1	
	New York.	Oct. 4-11.1	1
OHIO:	Cincinnati.	Oct. 3-103	
	Cleveland.	Oct. 3-10.24	12
	Hamilton.	Oct. 4-11.1	
	Toledo.	Sept. 27-Oct. 4. .1	
	Youngstown.	Sept. 27-Oct. 4 .2	2
PENNSYLVANIA:	Altoona.	Oct. 4-11.4	
	Johnstown.	Oct. 4-11.5	2
	McKeesport.	Oct. 4-11.2	
	Philadelphia.	Oct. 4-11.1	
SOUTH CAROLINA	Charleston.	Oct. 4-11.5	
UTAH:	Salt Lake City.	Oct. 4-11.3	
WISCONSIN:	Green Bay.	Oct. 5-12.1	
	Milwaukee.	Oct. 4-11.12	

SMALLPOX—Foreign.

BARBADOS:		Jly 13-Sep. 29	793	30
BELGIUM:	Brussels.	Sept. 20-27. . . .		5
	Ghent.	Sept. 20-27. . . .		1
CANADA:	Amherstburg.	Oct. 4-11.2		
ECUADOR:	Guayaquil.	Sept. 13-27. . . .		4
FRANCE:	Paris.	Sept. 20-27. . . .		1
GREAT BRITAIN:	Dundee.	Sept. 20-27. . . .1		
	Liverpool.	Sept. 20-Oct. 4. .9		1
	London.	Sept. 20-27. . . .4		
	Sunderland.	Sept. 20-27. . . .		1
INDIA:	Bombay.	Sept. 9-16.5		
	Calcutta.	Sept. 6-13.1		
MEXICO:	City of Mexico.	Sept. 20-28. . . .1		
RUSSIA:	Moscow.	Sept. 13-20. . . .2		
	Odessa.	Sept. 20-27. . . .3		
	St. Petersburg.	Sept. 13-27. . . .13		3
	Corunna.	Sept. 20-27. . . .		1
SPAIN:				
STRAITS				
SETTLEMENTS:	Singapore.	Aug. 23-30. . . .		1
SWITZERLAND:	Geneva.	Sept. 13-20. . . .1		

YELLOW FEVER.

COLOMBIA:	Panama.	Sept. 29-Oct. 6	15	
ECUADOR:	Guayaquil.	Oct. 20-27. . . .		1
MEXICO:	Coatzacoalcos.	Sept. 27-Oct. 4 .1		2
	Merida.	Sept. 19-Oct. 3	11	6
	Vera Cruz.	Oct. 4-11.5		2

CHOLERA.

CHINA:	Hongkong.	Aug. 1;-30	25	21
	New Chwang.	Aug. 16-30. . . .	90	85
EGYPT:	Alexandria.	Sept. 20-27. . . .	208	177
	Suez.	Sept. 10-16	20	16
INDIA:	Calcutta.	Sept. 6-13.	10	
JAPAN:	Osaka and Hiogo.	Sept. 6-20.26		62
JAVA:	Batavia.	Aug. 31-Sept. 6	48	40
KOREA:	Chenampo.	Aug. 17.	92	50
	Syen Chun.	Aug. 17.	20	11
STRAITS				
SETTLEMENTS:	Singapore.	Aug. 23-30. . . .		1

PLAGUE—United States.

CALIFORNIA:	San Francisco.	Oct. 1. 1 death bacteriologically confirmed.	
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PLAGUE—Foreign.

CHINA:	Hongkong.	Aug. 16-30. . . .19	19
EGYPT:	Alexandria.	Sept. 20-27. . . .4	2
INDIA:	Bombay.	Sept. 9-16.	51
	Calcutta.	Sept. 6-13.	6
	Karachi.	Sept. 7-14.8	6
	Adras.	Sept. 6-12.	1
RUSSIA:	Odessa.	June-Sept. 29 .38	11

SMALLPOX—United States.

C. D.

CALIFORNIA:	Sacramento.	Oct. 11-18.3	
	San Francisco.	Oct. 5-12.6	
ILLINOIS:	Chicago.	Oct. 11-18.3	
	Freeport.	Oct. 11-18.12	
INDIANA:	South Bend.	Oct. 11-18.2	
KENTUCKY:	Covington.	Oct. 4-18.21	
MASSACHUSETTS:	Boston.	Oct. 11-18.6	3
	Cambridge.	Sept. 13-Oct. 4 .1	1
	Everett.	Oct. 11-18.1	
	Malden.	Oct. 11-18.2	
MICHIGAN:	Detroit.	Oct. 11-18.13	
MISSOURI:	St. Louis.	Oct. 12-19.5	
NEW HAMPSHIRE	Nashua.	Oct. 11-18.25	
NEW JERSEY:	Newark.	Oct. 4-18.3	
NEW YORK:	New York.	Oct. 11-18.2	
	Cincinnati.	Oct. 10-17.2	
OHIO:	Cleveland.	Oct. 11-18.34	5
	Dayton.	Oct. 11-18.1	
	Hamilton.	Oct. 11-18.2	
PENNSYLVANIA:	Altoona.	Oct. 11-18.1	
	Erie.	Oct. 11-18.2	
	Johnstown.	Oct. 11-18.13	1
	McKeesport.	Oct. 11-18.1	
	Philadelphia.	Oct. 11-18.2	
	Pittsburg.	Oct. 4-18.37	5
	Reading.	Oct. 6-13.2	
SOUTH DAKOTA:	Sioux Falls.	Oct. 11-18.1	
UTAH:	Salt Lake City.	Sept. 27-Oct. 4 .2	
WASHINGTON:	Tacoma.	Oct. 5-12.1	
WISCONSIN:	Milwaukee.	Oct. 11-18.22	

SMALLPOX—Foreign.

BRAZIL:	Pernambuco.	Aug. 15-31. . . .		9
	Rio de Janeiro.	Sept. 21-28. . . .		18
CANADA:	Amherstburg.	Oct. 11-18.2		
CHINA:	Hongkong.	Sept. 6-13.		1
ECUADOR:	Guayaquil.	Sept. 27-Oct. 4 .		2
FRANCE:	Marseilles.	Sept. 1-30.		18
GREAT BRITAIN:	Leeds.	Oct. 4-11.1		
	London.	Sept. 27-Oct. 4 .4		
	Bombay.	Sept. 16-23. . . .		5
	Calcutta.	Sept. 13-20. . . .		2
	Palermo.	Sept. 20-27. . . .8		1
ITALY:	Moscow.	Sept. 20-27. . . .2		1
RUSSIA:	Odessa.	Sept. 27-Oct. 4 .1		

YELLOW FEVER.

BRAZIL:	Rio de Janeiro.	Sept. 21-28. . . .		6
COLOMBIA:	Panama.	Oct. 6-13.8		
COSTA RICA:	Port Limon.	Oct. 2-9.3		
ECUADOR:	Guayaquil.	Sept. 27-Oct. 4		2
MEXICO:	Coatzacoalcos.	Oct. 4-11.3		1
	Vera Cruz.	Oct. 11-18. . . .20		4

CHOLERA—Insular.

PHILIPPINE ISLANDS:	Manila.	To Sept. 13	3,974	2,994
	Provinces.	To Sept. 13	54,173	37,713

CHOLERA—Foreign.

ARABIA:	Hodeidah.	Sept. 10-12. . . .		9
CHINA:	Hongkong.	Sept. 6-13. . . .1		1
EGYPT:		Sept. 6-13. . . .		7,112
		Sept. 13-20. . . .	7,235	6,651
	Alexandria.	Sept. 13-20. . . .82		208
	Cairo.	Sept. 13-20. . . .28		102
	Damietta.	Sept. 13-20. . . .52		182
	Ismailia.	Sept. 13-20. . . .5		8
	Port Said.	Sept. 13-20. . . .2		3
	Suez.	Sept. 13-20. . . .31		41
	Calcutta.	Sept. 13-20. . . .		12
INDIA:	Madras.	Aug. 23-Sept. 12. .1		
JAPAN:	Fukuoka Ken.	To Sept. 22. 1,042		646
	Hiroshima ken.	To Sept. 22. . 706		
	Kagawa Ken.	To Sept. 22 .2,344		
	Nagasaki.	Sept. 11-20. . . .52		34
	Okayama Ken.	Sept. 11-20 .2,140		1,455
	Osaka.	Sept. 20-27 . . .45		28

PLAGUE—Insular.

HAWAII:	Honolulu.	Oct. 14.		1
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PLAGUE—Foreign.

AFRICA:	Cape Peninsula. . . .	To Aug. 9. . . .745		363
	Port Elizabeth. . . .	To Aug. 9. . . .135		65
	Mossel Bay.	To Aug. 9. . . .13		4
	Other Places.	To Aug. 9. . . .14		6
AUSTRALIA:	New Castle.	Aug. 1-31.1		1
BRAZIL:	Rio de Janeiro. . . .	Sept. 21-28. . . .		11
CHINA:	Hongkong.	Sept. 6-13.1		1
INDIA:	Bombay.	Sept. 16-23. . . .		55
	Calcutta.	Sept. 13-20. . . .		3
	Karachi.	Sept. 14-21. . . .22		14
	Madras.	Aug. 23-Sept. 12		1
RUSSIA:	Odessa.	From June to Oct. 448		14

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8

VOL. X. NO. 19

NOVEMBER 8, 1902

\$5.00 PER ANNUM

The Therapeutic Monthly.—This periodical has been purchased by the Philadelphia Medical Publishing Company and will hereafter be incorporated with the **Philadelphia Medical Journal**. The intention is to publish a special therapeutic department in this **Journal** once a month, and this department will practically embody all the features of the *Therapeutic Monthly*. In view of the practical importance of therapeutics, this arrangement is much to the advantage of our subscribers. By it, the constant reader of the **Journal** will have brought to him in regular monthly routine, and in pages with which he is familiar, all the latest and best in therapeutic science.

In the present number we are introducing this new scheme by publishing much matter on therapeutics. Hereafter a special department will appear each month.

The Serum Treatment of Scarlet Fever.—Believing that the streptococci of scarlet fever were not like other streptococci, since the Marmorek serum had proved useless in the treatment of scarlet fever, Dr. Paul Moser (*Wiener klinische Wochenschrift*, October 9, 1902) inoculated horses with streptococci from the heart's blood of patients dead of scarlet fever, which he had grown successfully upon bouillon. The serum obtained from the blood of these horses was used for treating children with scarlet fever, in injections of from 30 to 180 cc., but seldom repeated. The larger dose is more efficacious, and all injections should be made as soon as possible. Of his 81 cases reported, 5 were mild in character, 17 were moderately severe, 28 were serious and 34 were grave. Of the last, 15 died, while but one death occurred among the serious cases. The death-rate was but 9 per cent., in spite of the large number of very grave cases. For all the other Vienna hospitals during the same year the death-rate was over 13 per cent. Following the injection marked amelioration in the general condition occurred; the rash often failed to develop further; nervous, gastro-intestinal and nose and throat symptoms disappeared in 24 hours. The pulse, respiration and temperature

frequently fell instead of rising with the appearance of the eruption. Besides, signs of cardiac weakness rarely developed. No marked difference was noted, however, in the occurrence of nephritis and otitis media. But patients treated with the serum had short attacks, with early convalescence. In his earlier experiments Moser found streptococci in 63 out of 99 bodies of children dead from scarlet fever. The description of the excellent results achieved by his serum in over a year's time was read at the recent meeting of the German Naturalists and Physicians, at Carlsbad, in September last. Dr. Moser has been in charge of the infectious diseases department of the St. Anna Hospital for Children, Vienna, for five years, having assisted the late Dr. von Widerhofer for some time before his death. The Austrian Government has appropriated a large sum in order that this serum may be prepared and distributed in large quantities.

The Antitoxic Powers of the Suprarenal Bodies.—The property of the suprarenal bodies to raise the bloodpressure and constrict the vessels is now well known. In addition to this function, Oppenheim (*Paris Thesis*, 1901, No. 231, *Gaz. Heb. de Méd. et de Chirur.*, June 22, 1902), claims to have demonstrated an antitoxic property in these bodies. This antitoxic function is manifested not only toward the toxic substances produced by the normal organism in its cycle of changes, but also toward micro-organismal and other poisonous substances introduced from without. Oppenheim has found that extract of suprarenal body mixed with different toxic substances or injected into animals at the same time that these substances are injected, increases, in a great number of cases, the resistance of the organism to the intoxication. The most striking results were obtained with phosphorus and with the poisons from human urine. The removal of a portion of the suprarenal tissue, notably unilateral decapsulation, does not determine a diminution of the organic resistance to the infections and the intoxications. On the contrary, in diphtheria infection and phosphorus poisoning partially decapsulated animals resist the infection better than the controls.

This fact is explained by the often very great hypertrophy and the secretory hyperactivity of the gland not disturbed. This gives a new element of demonstration in favor of the antitoxic power of the suprarenal bodies. This important rôle in the defence of the organism is still further demonstrated by the constancy of capsular lesions in the acute infections and intoxications. In a series of studies made with experimental infections, such as diphtheria, tetanus, pneumobacillus and anthrax, upon the acute infectious diseases, such as diphtheria, pneumonia, small-pox, typhoid fever and streptococcus, and upon experimental intoxications, such as arsenic, phosphorus and mercury, the author, with Loeper, has demonstrated lesions that appear to vary more with the duration of the disease and the virulence of the toxic agents than with the nature of the toxic agent itself. The clinical study of the relations of the acute infections and suprarenal lesions gives a final proof of the rôle that these organs play in the protection of the organism. It shows that there is a syndrome of acute intoxication due to the suppression of the functions of the suprarenal bodies. This syndrome of acute capsular insufficiency, in which the phenomena of depression of the nervous system predominate, is likely to develop suddenly in subjects in whom the suprarenal bodies were formerly healthy. It acts, in the cases so far observed, as a special infection of a still undetermined nature which has realized at the time the rapid destruction of the bodies by the mechanism of hemorrhage and the introduction into the organism of poisons causing it. More often the symptoms of acute capsular insufficiency appear in the subjects of old lesions of the suprarenal bodies, which up to the time of development of the insufficiency have been latent or which have given rise to the more or less complete picture of Addison's disease. It is not impossible that in certain of these cases the deleterious substances that determine the accidents are formed in the organism by a mechanism of auto-intoxication. But most frequently, as it seems, it is an intercurrent infection or intoxication that introduces the deleterious substances into the economy. A suprarenal lesion already existing acts by rendering the complete destruction of the poisons impossible. Thus a disease which in a normal subject would be benign may be transformed into rapidly fatal disease.

The Electrical Conductivity of Urine as a Clinical Datum.—The progress of research into the nature of ordinary solutions has modified very much the opinion of chemists and physiologists as to the principles governing the reactions and effects of the

various fluids of the body. It is now believed that water is a solvent essentially different from many other liquids. Dilute solutions of many common compounds in water are regarded as having suffered modifications by which the molecule has become more active in several ways. This change, termed "ionization," is closely related to the electrical conductivity of the solution. It is shown to a high degree by most acids, but a noticeable exception is the so-called boric acid, which is by this and by other methods shown to be rather of the alcoholic type, a fact that is interesting in connection with its antiseptic uses. In researches in physical chemistry much use is made of the determination of electrical conductivity. The methods require elaborate apparatus and many precautions, but the results obtained are of undoubted physiological and clinical interest. A recent contribution to the subject is by Dr. J. H. Long, of Chicago, whose paper, appearing in the October number of the *Journal of the American Chemical Society*, gives account of studies of the electrical conductivity of the urine, supplemented by detailed analyses. Passing over the description of the methods used, we find the following conclusions of clinical value:

The electrical conductivity of the urine varies essentially with the amount of inorganic salts present, and, taken alone, is a datum of relatively little importance, because of the effect of the large amount of sodium chloride present, but after deducting the fraction of conductivity due to this substance, a remainder is obtained which is of importance in indicating metabolic changes.

Inasmuch as the conductivity may be accurately determined, the variations in the residual factor are of importance in detecting the lag of the inorganic excretion.

In connection with the paper some data are given showing the relation between the water ingested and the urine excreted, from which we find that out of six instances the total quantity only once fell below 900 cc. in twenty-four hours, and was in all others much above this. Another table shows a comparison between the excretion of six persons, three of whom were on a strictly vegetarian diet and three on a mixed diet. The average excretion for the former was about 1200 cc. in twenty-four hours, and for the latter 1000 cc.

Milk in Relation to Public Health is the theme of unremitting discussion among sanitarians. The movement toward a stringent regulation of dairies has received a serious check through Dr. Koch's extraordinary actions, but even he would probably admit the necessity for supervision to secure clean-

liness and purity. Among the recent literature on the topic is an official document entitled "Milk in its Relation to Public Health," prepared by Dr. George M. Kober, of Washington, D. C., and forming part of the proceedings of the last session of the U. S. Senate. The purpose of the report is to furnish information in behalf of a bill now pending for the regulation of the milk-supply of the District of Columbia. The pamphlet contains over two hundred pages, including analytical methods, sanitary statistics and information concerning various milk products. The most impressive data are those relating to milk-borne diseases. Dr. Kober has collected a large number of cases of this character, details being given of 195 outbreaks of typhoid fever, 99 of diphtheria and 35 of scarlatina ascribable to the use of infected milk. In a table covering 43 pages these cases are synoptically presented, many details, such as locality, exact nature of transmission and extent, being stated. The whole constitutes a most positive demonstration of the dangers of unrestricted methods of producing and purveying milk, and emphasizes the fact that the mere chemical adulterations, such as watering and skimming, and even the addition of small amounts of preservatives, have but little significance for the general public as compared with the obtaining of milk clean in the strictest sense. Considerable space is given to the discussion of the liability of milk to transmit tuberculosis. Dr. Kober does not take very strong ground, but gives numerous suggestive cases. Still more suggestive evidence of the untenability of Dr. Koch's position has been made public since this pamphlet was prepared, notably the results of Dr. Ravenel. Dr. Kober's view seems to be indicated by the title of one of the chapters: "Milk acquires infective properties generally only after it leaves the udder of the animal." We find the part of the pamphlet devoted to this subject so interesting and valuable that we feel doubtful of the advisability of having joined to it so much special chemical and technical matter. The best argument for milk control is to be found in the specific diseases that the substance may convey. In the face of such dangers the waste of energy shown by many sanitary authorities in discussing whether milk should have 8.5 or 8.75 per cent, of solids-not-fat, or whether a minute amount of coloring matter is objectionable in catsup or confections, seems regrettable.

The Utilization of Atmospheric Nitrogen.—The conversion of the free nitrogen of the air into compounds adapted for plant food has been a hope of agricultural chemists ever since they came to a

knowledge of the chemistry of plant growth. It has long been known that electrical discharges through air may produce small amounts of nitrogen oxides from which nitrates may be obtained, but until recently such methods were wholly impracticable on a large scale on account of the cost of the electrical current. The installation of machinery for producing powerful currents at any desired pressure, by utilizing waterfalls, has made the problem of fixing atmospheric nitrogen more easy of solution, and apparatus for the purposes has been perfected and installed. The following brief details from a patent recently published may be of interest. The best effects are obtained by what is termed an arc of minimum volume, that is, one operating under a very low amperage. To secure this, and yet prevent frequent interruptions, special electrical apparatus has been devised, the description of which would be intelligible only to electrical engineers. The air is admitted first to a cooling apparatus by which moisture is removed, then passed through the electrifying machinery, then again into a cooler at a temperature of the melting-point of ice, by which all nitrogen dioxide is condensed, and finally to a cooler at a temperature of -22° F., by which nitrous anhydride is condensed. Inasmuch as the residual air is very cold, it is utilized for refrigerating purposes. The drying of the air before submitting it to the electrical action prevents the formation of nitric acid, as water is required for that substance, and among other advantages of this is that the corrosion of apparatus is reduced to a minimum. The yield of nitrogen oxides is about three per cent. of the air employed. The operation is maintained intentionally at this low efficiency, to prevent loss by secondary dissociation, which would occur if the atmosphere around the arcs became quite rich in the products.

The process is said to be commercially successful and is a remarkable advance in the applications of electricity. Taken in connection with the enormous consumption of oxygen in the many industrial operations, it may suggest the thought that the twentieth-century worker is using up air faster than natural conditions can restore it.

The Treatment of Delirium Tremens Potatorum in the Course of Croupous Pneumonia.—It is well known that croupous pneumonia in an alcoholic is a very serious affection. Our large hospitals furnish statistics which are simply appalling. We have seen statistics which show a mortality of 80 per cent. and over. It would appear that our methods of treatment then for this complication are by no means satisfactory. The question of using al-

cohol liberally in these cases is still debated, and there is by no means a concurrence of opinion. The muscular and nervous irritability, which is so marked and of such long duration, easily leads to exhaustion of the brain and of the heart. This is most often the cause of the fatal results. Only the quiet which profound sleep will produce will overcome the condition. The best results appear to have been obtained from the use of chloral hydrate in doses sufficient to produce sleep. With this the patient has been supplied with an amount of alcohol to which he has been ordinarily accustomed. A remedy for this same condition which is gaining ground rapidly, is the hydrobromate of hyosine. This may be given by the mouth or hypodermically. Another matter must also not be neglected, especially in these underfed persons, and that is the systematic supply of easily assimilated nourishment at regular intervals.

An Object-Lesson for Philadelphia.—Dr. Flick's illustrated paper on the sanatorium for consumptives at White Haven is particularly appropriate to the times and circumstances in this city. We are publishing this paper in this number of the *Journal*, and we take pleasure in calling the attention of the city fathers to it. Philadelphia is facing an emergency, and a study of the work at White Haven may help her to meet it. In this respect, however, Philadelphia is not in a class by herself; she is in the same company as all other large cities. The cry is: What is to be done with the consumptives?

There is only one answer to this question. Patients with tuberculosis must be isolated and treated to fresh air. The city of Philadelphia has no moral right to ignore this question; it has no justification for herding several hundreds of these unfortunates in old and insanitary buildings, along with several thousand other persons, to the detriment both of the consumptives and their neighbors. There is no such urgent need today for removing the smallpox hospital as there is for removing the consumptives away from Blockley.

Let Philadelphia look at White Haven, and see the work done there with only limited resources. Then let there be established a rural sanatorium for the city's own cases of tuberculosis. To neglect this business will be to stand pilloried before the world. And this is true of other cities besides Philadelphia.

A Memoir of Dr. J. M. DaCosta.—To commemorate the virtues of a great man is always a gracious but sometimes a most difficult task to execute. In order to appreciate pre-eminence a writer must have in himself something pre-eminently fit. There is probably no department of writing that more re-

quires the nice combination of accuracy of insight and moderation in expression.

That the late Professor DaCosta was a truly great man in the essential qualities of character and attainment, is universally allowed. He was for many persons the ideal type of the physician, and he was for all men and at all times an example of that perfect simplicity and transparency of character which are among the true elements of greatness. In accord with a time-honored custom the College of Physicians of Philadelphia has just honored the memory of Dr. DaCosta with an address, and this address was most appropriately assigned to Dr. J. C. Wilson, who was the student, the associate, and the successor of the distinguished man whom he depicts. We have the great satisfaction of presenting Dr. Wilson's memoir of Dr. DaCosta in this number of the *Journal*. We are confident that the profession at large, and especially the large number of physicians who have claimed Dr. DaCosta as their teacher, will read this address with an intense if melancholy interest, and will agree with us that it is a most graceful and appropriate tribute to the man whom it commemorates.

Dr. Frederick A. Packard.—In the death of Dr. Frederick A. Packard the profession of Philadelphia has suffered a loss that will be deeply and widely felt. Though still a young man, he had reached a high rank among the best clinicians of the country, and occupied a deservedly prominent position as a citizen. His medical training and experience were exceptionally broad, and his habit of mind disposed him to make the best use of both. In his clinical work, thoroughness and accuracy were the fundamental qualities which enabled him to utilize to the best advantage a wealth of experience rarely permitted any but the older members of our profession. Graduated in medicine from the University of Pennsylvania in 1885, he at once entered the University Hospital as resident physician, and later the Pennsylvania Hospital in the same capacity. After his terms of residency were concluded, he was successively appointed Physician to the Outpatient Departments of the Episcopal and the Pennsylvania Hospitals, Physician to the Home for Incurables, the Philadelphia Hospital, the Episcopal Hospital, the Children's Hospital, and the Pennsylvania Hospital, the last two of which appointments he retained at the time of his death. In all these positions he was indefatigable in the preservation of records, and accumulated a mass of material that would undoubtedly have been drawn upon in many a useful contribution had life been spared him. His contributions to Keat-

ing's Encyclopedia of Diseases of Children, Wilson's American Text-Book of Applied Therapeutics, Starr's Text-Book of Diseases of Children, and his numerous articles in the medical journals record the accuracy of his knowledge and the extent of his experience.

As a physician and consultant, however, the qualities of the man were no less conspicuous than his knowledge and talent. In every relation of life his generosity, kindness, sincerity and unfailing uprightness distinguished him as an unusual man and destined him for the highest purposes. His influence, already great, must have increased as his relations widened, and his loss to the community, and especially to medicine, is most unfortunate. His appointment as a Trustee of the University of Pennsylvania was everywhere acknowledged as a happy one for the institution, and was regarded as a conspicuous recognition of his capacity for public work. His untimely death will be deeply felt by his colleagues of the Board of Trustees as well as by students to whom, in his recent occupation of a temporary professorship as well as in his former capacity, he had become peculiarly endeared.

Among Dr. Packard's more prominent professional appointments were his Presidency of the Philadelphia Pathological Society, Presidency of the Philadelphia Pediatric Society, membership in the Association of American Physicians, the American Pediatric Society, and the College of Physicians of Philadelphia. His associates in these various organizations will long remember him as a man of wide and warm sympathies, earnest and intense, loyal to the best professional interests, suggestive in his own contributions and appreciative of the work of others.

The Law versus Christian Science.—Probably the most significant conflict between the law and Christian Science that has ever been precipitated in this country, will take place at an early date at White Plains, N. Y. A "practitioner" of Christian Science has been indicted for manslaughter in the case of a child which was allowed to die of diphtheria without medical treatment. The details of this hideous case may be read in the newspapers. We have no desire to report them here. We merely wish to refer to some principles that are involved.

We say once again that this is the public's fight—not the fight of the medical profession. Diphtheria is a highly malignant and infectious disease. A case of it in any neighborhood is like a house on fire—the fire is not to be put out by prayer. Neither is it to be allowed to continue to burn simply because the owner happens to be so obsessed with superstition

that he prefers to pray over his house while it burns, and insists on his right to keep the fire engines away from his property.

This is not a question of religious liberty. To claim any such exemption for these pestiferous fanatics, is to distort the meaning of the word "liberty" out of all possible acceptance. One man's liberty ends where another man's liberty begins. The right to make a prayer meeting out of a pest house is so grotesquely impracticable that no sane man wants to stop to argue it.

We have no relish for seeing the Christian Scientists converted into "martyrs." It is a rôle they are always ambitious to fill, but we sincerely believe the world has grown too old and wise to be captured any longer by that sort of histrionics. The martyrdom that has time and opportunity to cool off in jail is not a dangerous kind.

But, as we have said, this is the public's fight. The children of the people are the innocents who pay tribute to this monstrous cult. The medical profession can afford to watch and see how well the public will protect itself by an appeal to law.

Sir Thomas Browne Once More.—As one of the genuine *literati* of the medical profession, the author of the *Religio Medici* is being made much of in these days. We confess to always having had a little dislike of old Sir Thomas Browne, if for nothing else but his crass and overweening credulity. We realize that we run a little risk in expressing a sentiment so out of accord with the fashionable judgments of the day. Sir Thomas Browne is at the present moment *de rigueur*. It is quite the mode to pay tribute to him. He is a sort of idealized seventeenth century apostle of orthodox theology and orthodox medicine in one and the same book.

The fact that Sir Thomas Browne believed in witches and devils should, we admit, be a source of amusement rather than a cause of criticism. For those persons who like demons the *Religio Medici* has a message which they can easily understand; and for those other persons who do not recognize the devil the book can at least serve to provoke a smile. But we protest that it is no excuse for Sir Thomas that he lived in the times of witchcraft. Old Montaigne lived even before him, and Montaigne's intellectual horizon was far wider than Browne seemed able to enjoy in the latitude and longitude of Norwich. The author of the essays was not a superstitious provincial, and he need ask no favors of posterity on the score of his times. The two men are far apart in breadth and depth, and in our judgment Montaigne is of vastly more profit for medical readers than Sir Thomas Browne.

The latest writer to try his pen on the sage of

Norwich is Sir Frederick Treves, who uses him and his book as a sort of text with which to point a moral for medical students. Anything that Sir Frederick Treves writes is of interest now, and his comparison between the old and the new in medical practice is especially informing for beginners. The address was delivered at University College, Liverpool, and is published in the *British Medical Journal* for October 18. It is, we believe, the latest commentary on what may be called the confessions of a wise and amiable demonomaniac.

Too Many Medical Schools.—"Until we do away with the commercial medical schools, which divide the hospitals and dispensaries into so many medical camps, dispensary abuses will continue to exist."

Such is the opinion of Dr. Henry M. Hurd, Superintendent of Johns Hopkins Hospital in Baltimore, as expressed by him at the recent meeting of the Association of Hospital Superintendents in Philadelphia. Dr. Hurd seems to think that the dispensaries are run to supply clinics for medical schools. This is doubtless true to some extent, but we believe it would be a great error to suppose that this is the chief cause of dispensary abuses. We do not know how it may be in Baltimore, but we know that in Philadelphia the medical schools are by no means responsible for all the free dispensaries.

We think the chief cause of so many of them in this city is the rivalry between the hospitals—especially the denominational hospitals. Every church now must have a hospital, and every hospital must have a dispensary. There are not a few large hospitals in Philadelphia in which students seldom, if ever, set foot, and yet these hospitals are doing a large dispensary business. In fact, immense clinical opportunities are lost in Philadelphia every year because some of our hospitals do not furnish adequate teaching facilities; or, if they furnish them, these facilities are neglected by students.

Dr. Hurd's statement has surprised us not a little. As a foe to the abuse of dispensaries, we should like to see the fault properly apportioned, and we are sure it is not all due to the colleges.

That Egg Story.—For several months the story went the rounds of the medical journals about a Kentucky farmer who lay ill of a fever and whose wife, a thrifty soul, put several dozen eggs in his bed to be incubated. This tale, it seems, even penetrated to the French capital, for *La République* prints it and ascribes it to the *Philadelphia Medical Journal*. But we are not credited with originality, for *La République* intimates that the story is ancient history (*vieille histoire*).

It is "old as the world," and for three hundred years, at least, it has been doing service in France. Maupassant made it the theme of one of his most amusing tales, called *Toine*.

La République asks whether it can be true that American humor is on the decline; that the humor of "Mac-Twain" and of Bret Harte is only an imitation? We humbly hope not. Still, we are not responsible for this particular story, and if it appeared in our pages it was only borrowed for the occasion.

Current Comment.

INSECTS AND CIVILIZATION.

An accomplished scientific writer, H. C. McCook, D. D., Sc. D., calls attention in the June number of *Harper's Magazine* to the important part which insects have throughout played, and still continue to play, in the adaptation of the earth's surface to the wants and comforts of man. Even before the publication of Charles Darwin's epoch-making volume on "Earthworms," this reverend author had contributed to the pages of the "Proceedings of the Academy of Natural Sciences of Philadelphia" a paper which revealed an agency of the ants of that city in their treatment of the upper layers of the soil, very similar to that which was so lucidly demonstrated for the efforts of the previously ignored earthworm by the great apostle of evolution in his last contribution to the study of his life. Indeed, it must now be recognized that insects dispose of decaying and mouldering vegetable and mineral matter by processes analogous to those by which the bacteria deal with diseased and dead animal matter; they tear it to pieces, they plough and harrow it, and spread it abroad in new and neutral forms ready for the reception of new seeds of life, and for future contribution to chosen representatives of the various kingdoms of nature. The reflection also necessarily recalls the importance of the presence of the flea in the transmission of plague, and of other insects in other inoculable diseases.—*The Medical Press and Circular*.

IS THIS HYPNOTISM?

Dr. Steiner observed in Java a method employed to induce sleep. It consists in compressing the carotid arteries. The operator sits on the ground beside the patient, whose neck he seizes with both hands. The index and middle fingers are then pushed forward into the carotids, which are compressed toward the spine. The patient's respiration becomes more rapid and more profound and his head relaxes backward. The method is absolutely harmless, anesthesia is rapidly obtained, and the patient wakes promptly with no symptoms of nausea or malaise. Dr. Steiner declares the method to be well known in Java, where it is used to relieve headache, sleeplessness, etc., and points out the fact that the carotid artery was known to the ancients as *arteria soporifera*, and that its name in modern Russian is "artery of sleep." He does not seem to know that the method is widely practised in India. Kipling's *Kim*, for example, is put to sleep by a process of the sort. Dr. Steiner experimented upon thirty Javanese, and was successful in all but five cases. He sat in front of the patient, placing his right hand on the left, his left hand on the right side of the patient's neck. When the ends of his fingers met at the back of the neck he placed his thumbs back of and a little below the angles of the lower jaw. The beating of the carotid was felt,

and then a moderate pressure toward the spine was applied. The loss of consciousness was complete and, in one case, an abscess was lanced without sensation on the patient's part.—*The Baltimore News*.

Correspondence.

OVERLOOKING DYSMENORRHEA.

By CHARLES MULLIN, M. D.,

of Syracuse, N. Y.

To the Editor of the Philadelphia Medical Journal:

The simulation of certain conditions by others in medicine often causes the beginning practitioner to give a diagnosis in an off-hand way which older men would hesitate to do. There is one condition that is prone to make more or less trouble for the young practitioner, by simulating conditions that do not exist, and causes him to jump at conclusions which may be glaringly exposed as erroneous before he has had the opportunity to alter his diagnosis. I refer to dysmenorrhea. The two cases cited here occurred so closely together (a couple of days apart) that the necessity of keeping the possibility of dysmenorrhea in mind was doubly impressed upon me and gave me a lesson I have never forgotten.

CASE I.—Mrs. W., aged 20 years, servant. Had inflammation of bowels 2 years ago. Some pain at monthly periods. Four days before this period she was suddenly taken with sharp pains in the abdomen. A physician was called and prescribed for her. During the night, the pains being more severe, I was called to attend her. I found the patient in great agony, curled up in bed and crying aloud as each pain came on. Morphine and belladonna were given hypodermically. The next day I was requested to continue the case, the first physician being discharged. The patient was slightly relieved by opiates. Examination disclosed a tenderness of abdomen that would not admit of deep palpation. Temperature 99 degrees, pulse 110. Bowels distended and abdominal muscles contracted. Being pressed by the husband and family for a diagnosis, I gave inflammation of the bowels. At once a hospital was suggested, and to this I readily agreed. The next morning being the time set for the transfer of the patient, I called upon her early. To my surprise I found her up and about, bereft of all pain or tenderness. She told me that her flowing came on during the night, followed by immediate relief from suffering.

CASE II.—Mrs. M., aged 30. No history of dysmenorrhea given. Two days previous to my seeing her she complained of darting pains in the left chest, chilly sensations, cough and loss of appetite. When I saw her the pains were stitchy, cough dry; there was inability to take a deep breath or to lie on the left side. Examination revealed nothing positive, except exaggerated breathing on the right side. Temperature 99 degrees, pulse 106. There was some sweating. The next morning the condition of the patient not being improved, consultation was desired. Accordingly an older physician was called in. My suspicions were verified, and a diagnosis of pleurisy was given. Within 48 hours the patient began to flow and all symptoms disappeared.

Such errors as these are not at all rare. Physicians with whom I have talked on this subject relate similar experiences, and even yet are sometimes baffled by these nervous phenomena. The fact is emphasized that all practitioners (especially beginners) cannot be too careful in the diagnosis of cases in and around the monthly period.

THE QUESTION OF PRIORITY REGARDING THE CON- STRICTION OF THE CAROTIDS, PRELIMINARY TO OPERATIONS UPON THE HEAD AND NECK.

By MAX R. DINKELSPIEL, M. D., of Philadelphia.

To the Editor of the Philadelphia Medical Journal:—

In your publication of October 25th., 1902, I note that Robert W. Johnson, M. D., of Baltimore, Md., claims the priority for devising an operation for temporarily diminishing the blood supply in operations on the head and neck by "turning off" the carotids, and refutes the credit accorded to Dr. George Crile, of Cleveland, O., in your issue of September 27, 1902. The contention seems to

have been stimulated by the article of Dr. Mills, Dr. Pfahler and Dr. J. B. Deaver, in which the latter author claimed to have availed himself of the new method of temporarily closing the carotid arteries, giving the credit for the same to Dr. George Crile.

The preference which is sometimes given foreign literature, especially the German, at the expense of the American, has been justly characterized as a propagation of an injustice; yet a just interpretation of this contention also has its limitations. Statistics undeniably demonstrate that neither of the above-named claimants is the originator of the temporary shutting off of the blood supply during operations upon the head, and, furthermore, that they are considerably antedated in this procedure.

In an article by Professor Schlatter, of Zurich, Switzerland, on the ligation of the carotid preliminary to resection of the superior maxilla, published in the *Philadelphia Medical Journal*, April 13, 1901, and translated by me, the literature of the whole subject is carefully considered, and shows that the question of diminishing the blood supply of the head by ligation of the carotids (not temporarily) was raised as early as 1840 by Pirogoff, in 1874 by Madelung, and subsequently a thorough revision of the literature was made by Lipps. While this does not refer to the literature on the temporary ligation, it goes to show that the subject itself has been considered as early as the dates above mentioned.

Regarding temporary ligation of the carotid, which I judge the term "turning off" in the title of the recent communication means, it will be found that Emil Senger ("Ueber den Versuch einer blutlosen Oberkieferresection durch temporäre Constriction der isolirten Carotis." *Deutsche med. Wochenschrift*, 1895, p. 160) wrote about the subject, three years before Dr. Crile.

At the International Congress in Rome, Schönborn demonstrated an artery compressor, consisting of two parallel steel rods movable in the direction of their long axes, for temporarily constricting bloodvessels for the purpose of diminishing the afferent supply of blood. An illustration of this compressor has been published in the *Deutsche medicinische Wochenschrift* of 1896.

Riese ("Ueber die temporäre Ligatur der grossen Gefässstämme mit besonderer Berücksichtigung der Constriction der Carotis als Voroperation zur Oberkieferresection." *Deutsche medicinische Wochenschrift*, 1896, p. 67), reported two cases of resection of the superior maxilla, with a preliminary temporary ligation of the carotid. Kocher, in his text-book on operative surgery, highly recommends the procedure. Furthermore, it is a well-known fact to students of surgery that the inimitable treatise "Die Thrombose nach Versuchen und Leichenbefunden" (*Stuttgart*, 1888), by Eberth and Schimmelbusch, contains many experimental clauses as to the histological appearance of bloodvessels that have been compressed and ligated by various devices.

In Johnson's communication it is not explained whether by the term "carotid" the external or the common carotid artery is meant, in so far as the ligation of each one of these arteries has been the subject of considerable literary comment, both in Dr. Schlatter's article, as well as in various other articles on the subject in other languages. Regarding the experiment upon a dog which Dr. Johnson demonstrated at the Centennial meeting of the Medical and Chirurgical Faculty of Maryland on April 27th., 1899, permit me again to refer to the thorough work of Eberth and Schimmelbusch, published in 1888, regarding their experimental ligations, and which can also be found in the article by Dr. Schlatter. While I am not able to throw any light upon the question of priority between Dr. Johnson and Dr. Crile, I believe the above statistics will show that both of these authors have been antedated in the procedure.

Reviews.

General Paresis, Practical and Clinical. By Robert Howland Chase, M. D., Physician-in-Chief to the Friends Asylum for the Insane, etc., etc. Illustrated. Philadelphia. P. Blakiston's Son & Co. 1902.

Dr. Chase has brought to the composition of this excellent book an experience of more than twenty-five years in several of the most important hospitals for the insane in the United States. He states in his preface that he has compiled a study of general paresis especially for the practitioner and student. His book, therefore, has not been written with the object of settling scientific questions that are still in dispute, nor evidently for the purpose of maintaining any individual views or of presenting results of any original investigations of the author, but merely with the object of furnishing a reliable text-book for practitioners who have not ready access to the large body of literature on this subject. We have no hesitation in saying that Dr. Chase has succeeded admirably in his design.

We are so much impressed with the value of the book from this standpoint that we should like especially to call attention to it as a safe guide, and also to the desirability of general practitioners having such a work as this for ready reference. It is the general practitioner who in the large majority of cases is the one who is first called upon to make the diagnosis and to treat the patient in cases of general paresis. This most instructive disease, therefore, is not one that appeals to specialists alone. Apart from its mere interest as a pathological study (and few diseases are of greater interest), it is of importance in many social and medico-legal relations to which the general practitioner cannot shut his eyes.

Dr. Chase has shown great industry in composing this work. It is rich in literary reference and is marked by great good judgment and taste in the mere literary execution. This makes it attractive reading, for it is full of the personal and human interest that arises naturally from the well-told story of such a truly dramatic disease as general paresis. This rule is by no means a poor one by which to judge even a scientific treatise, namely, by its power to arouse interest.

We shall hardly be expected here to enter into details in our necessarily brief notice of Dr. Chase's monograph. We should prefer to have our readers accept our general judgment on the work—a judgment that is altogether favorable. The work is systematically arranged, copiously illustrated, and written in an attractive style. The clinical aspects of the subject especially are well brought out, while the pathology, if not so full and so original, is, nevertheless, sufficiently portrayed to meet the demands of the general reader. We congratulate the author on having composed a most useful and instructive book on one of the most important subjects in psychiatry. [J. H. L.]

Diseases of the Anus, Rectum and Pelvic Colon. By James P. Tuttle, A. D., M. D., Professor of Rectal Surgery, New York Polyclinic College and Hospital, Visiting Surgeon to the Almshouse and Workhouse Hospital, Fellow of New York Academy of Medicine, Fellow of Chicago Academy of Medicine, etc. Cloth, \$6.00; half-leather, \$6.50. Sold only by subscription. D. Appleton & Company, publishers, New York.

The development of our knowledge of diseases of the anus, rectum and pelvic colon may be seen at a glance by comparing the text-books of some 10 years ago with this masterly work of Dr. Tuttle's, now fresh from the press. This volume consists of some 950 pages, richly illustrated with some 338 well-executed halftones, some 300 of which are original and which have been taken from actual clinical cases or dissections. In addition to this there are eight fullpage colored plates. The general typography is in keep-

ing with the high-class illustrations, and we mention the appearance of the volume because it is a conspicuous example of good book-making. The author's wide experience as a proctologist, as well as a general surgeon, have qualified him in a high degree to undertake the authorship of work of this comprehensive character. We are pleased to observe that medical as well as surgical treatment has received the most painstaking consideration, and the treatise is a remarkably well-balanced one. The embryology, anatomy and physiology of the parts concerned are discussed with thoroughness and clearness, and the text is further enlightened by the beautifully executed drawings to which we have referred. The subject of rectal feeding is discussed with full regard for the practical side. The author has included a large number of carefully selected formulæ for rectal feeding. In our opinion the chapters devoted to the consideration of malignant neoplasms, containing as they do the most accurate and clear description of operative procedures, are worthy of the highest praise. No less admirable is the somewhat brief but well presented discussion of constipation, obstipation and fecal impaction. The author has included in the text a large number of references to current medical literature and has in every case under discussion presented the views of a number of leading authorities as well as his own. This work, while a thoroughly moulded treatise, rich in detail and reference, is not wanting in the decidedly practical character which will surely give it a recognized place among works in this field. We have no hesitation in prophesying that there will be an early demand for another edition, and we believe that Dr. Tuttle is to be congratulated upon the successful manner in which he has accomplished his task. [T. L. C.]

A Physician's Practical Gynecology. By W. O. Henry, M.D. Professor of Gynecology in the Creighton Medical College, Omaha, Neb. First edition; 226 pages, 5 full page illustrations and 61 illustrations in the text. Price, cloth, \$2.00. Lincoln, Neb., The Review Press. 1902.

The object of this book is to present the essentials of gynecology in a brief, concise and clear manner to medical students and to give the general practitioner a safe and practical guide for the diagnosis and treatment of the ordinary gynecological cases. The author has adopted an anatomical basis and has condensed the pathology of the various portions within the space of a very few pages. The illustrations have been well selected and some are of unusual interest. Notably is this true of figure 40, which represents a four months' superfetation and figure 39, which shows a three months' mummified fetus. Both specimens were taken from the author's practice. The book will be of most value to students desiring a short concise presentation of any gynecological subject. [W. A. N. D.]

Biennial Report of the Board of Health of San Francisco

This covers the fiscal years 1898-99 and 1899-1900. The matter is almost entirely statistical. Dr. John M. Williamson, President of the Board of Health, gives under date of June 30, 1900, a report of the difficulties that the Board had with the cases of plague. The subsequent history of the affair has been given by the *Philadelphia Medical Journal* and need not be discussed here. [H. L.]

Annual Report of the Department of Safety, Subdepartment of Health of the City of Baltimore.

With the exception of a few pages of description and tables, this report consists of eight large maps of the city of Baltimore, each map showing the distribution of cases of disease, important in general sanitation. This is a commendable method, and probably if systematized is not very costly. No better way to show the incidence, and thus, the possible causes of diseases, can be devised. [H. L.]

Medical Directory of New York, New Jersey and Connecticut, 1902-03. Published by the New York State Medical Association.

The fourth volume of the Medical Directory of New York, New Jersey and Connecticut has just been published by the State Medical Association. The Index which accompanies it is very complete, and the tinted paper used for the purpose of making easier reference to different parts of the book, makes it very useful to physicians who reside in the territory covered by the work. [J. L. S.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.



DR. FREDERICK A. PACKARD.

Death of Dr. Packard.—Dr. Frederick A. Packard died at the Pennsylvania Hospital on the morning of November 1, in his 40th. year, from typhoid fever. Dr. Packard became ill early in October, was operated upon a week later for appendicitis, and then improved. On the last day of October, however, perforation occurred, and the operation performed in consequence proved unavailing. Dr. Packard was born in Philadelphia November 17, 1862, and was the son of Dr. John H. Packard, the eminent Philadelphia surgeon who was well known during the Civil War as medical director in the army. Dr. Packard's father is still living. Dr. Packard was graduated from the University of Pennsylvania in 1882 and from the Medical School in 1885. Here he was head of his class, taking 3 first prizes and one second prize. He was resident physician at the University Hospital and at the Pennsylvania Hospital, after which he assisted the late Dr. William Pepper for 3 years in private practice. Dr. Packard was visiting physician to the Philadelphia, Episcopal, Methodist, Children's and Pennsylvania Hospitals, and was also consulting physician to a number of institutions. For several years he was instructor in clinical medicine in the University of Pennsylvania, and in 1901 he became a trustee. During the illness of Professor H. C. Wood last winter, Dr. Packard was appointed lecturer on therapeutics at the University. He was a member of the Association of American Physicians, American Pediatric Society, College of Physicians of Philadelphia, Philadelphia Pathological Society, Philadelphia Pediatric Society and many other scientific associations, of a number of which he had been president. He had written a number of pamphlets, both upon internal medicine and diseases of children, and also published a book on dietetics. In 1898 Dr. Packard was offered the professorship of medicine in the University of Texas, at Galveston, which position he declined because it would take him away from Philadelphia. His death will be deeply felt by the medical profession of Philadelphia, where his able qualities had made him a popular leader, in spite of his youth.

Society Meetings Next Week.—The following societies will meet next week at the College of Physicians, Philadelphia, at 8.15 P. M. Monday evening, November 10, Section on Medicine, College of Physicians; Tuesday evening, November 11, Pediatric Society; Wednesday evening, November 12, County Medical Society, and Thursday evening, November 13, Pathological Society.

The Health of Pennsylvania.—During the week ending November 1, no new cases of smallpox were discovered in the city of Philadelphia, though there were 12 cases during the previous week, 6 of which were under treatment, with the diagnosis of chickenpox, for some time before. Cases have been reported throughout the State, at Conneville, Altoona, Mansfield, Parkersburg and Lancaster. Hazleton has just completed a municipal hospital for contagious diseases, while a committee has been appointed at Parkersburg to provide such a hospital. There was also an increase in the number of cases of typhoid fever in Philadelphia, and a slight increase in the number of scarlet fever and diphtheria cases reported. Diphtheria is also epidemic at Roaring Springs, near Altoona, where the schools have all been closed. Scarlet fever is epidemic at Snyderstown.

Alvarenga Prize, College of Physicians, Philadelphia.—The College of Physicians announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, amounting to about \$180, will be made July 14, 1903, provided an essay, deemed by the committee of award worthy of the prize, shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the secretary of the college on or before May 1, 1903. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of the competition that the successful essay or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the award. The Alvarenga Prize for 1902 was not awarded, the committee having decided that no essay of sufficiently high standard was submitted in competition.

Dr. Guillain in Philadelphia.—Dr. Georges C. Guillain, of Paris, who is visiting the United States, spent last week in Philadelphia. He visited the Philadelphia, Orthopedic, Jefferson and University Hospitals and was entertained at dinner by Dr. C. K. Mills. Dr. Guillain was formerly assistant to Dr. Marie at the Bicêtre Hospital and has recently become chief of clinic to Dr. Raymond, Charcot's successor.

Prizes Won by Philadelphians.—The 2 prizes, of \$1000 and \$500 respectively, which were offered last January for the 2 best essays on preventive medicine, by the Maltine Company, of New York, have both been awarded to Philadelphians. The first prize was given Dr. W. W. Babcock, lecturer on pathology in the Medico-Chirurgical College, for his essay entitled "The General Principles of Preventive Medicine," which contained over 60,000 words. The second prize was awarded Dr. L. S. Somers for his essay entitled "The Medical Inspection of Schools; A Problem in Preventive Medicine." The judges in the contest were Drs. Daniel Lewis, of New York; C. A. L. Reed, of Cincinnati, and J. E. Rhodes of Chicago. Two hundred and nine essays were submitted in the competition, 25 from Pennsylvania, 22 from New York, 15 from Illinois, 12 from Massachusetts, 11 from Ohio and Indiana each, 10 from Wisconsin and others from almost every state in the Union. The 2 successful essays will first be published in medical journals and then in permanent form for distribution among the medical profession.

Berks County Medical Society.—At the October meeting, Dr. Cladwell, who has recently returned from India, read a paper on the diseases peculiar to famine in India. She spoke of the plague and its prophylaxis by immunization. She had herself been treated with antiplague serum 3 times, with the production of a marked reaction after each injection. *Ascaris lumbricoides* is a common intestinal condition.

Philadelphia Hospital.—On account of the crowded condition of the Philadelphia Hospital and Almshouse, tuberculosis causes an immense number of deaths. A number

of physicians have contracted tuberculosis during their terms of service at the Philadelphia Hospital, and the present chief resident physician has recently died from tuberculous peritonitis. Nurses and other employes of the hospital have also contracted the disease. Last March the neurological staff of the hospital, in a comprehensive report, advocated the isolation of tuberculous patients and pavilions or wards for the isolation of insane patients. For insane people are very liable to contract consumption, especially when overcrowding, improper ventilation and uncleanness are present. New buildings are an absolute necessity for the institution, and it seems best that the insane department should be separated both from the Almshouse and the Philadelphia Hospital.

In Memory of Dr. Hughes.—It has been proposed to erect a memorial tablet in memory of Dr. Daniel E. Hughes, formerly chief resident physician at the Philadelphia Hospital and Almshouse, who died recently. Contributions are now being received for this tablet in memory of Dr. Hughes, which will be erected at the Philadelphia Hospital.

WESTERN STATES.

Plague in San Francisco.—During the month of October, 6 fatal cases of bubonic plague were discovered in Chinamen, making a total of 36 cases since January 1, all but one of which ended fatally. This is a slight decrease, as 10 cases occurred in August, and 9 in September. It is said that the business men of San Francisco have used their influence to keep the health authorities from publishing the facts, and in this way have aided in the spread of the disease. It is now believed that the time has come for the general government to act.

Society Meetings Next Week.—The Oklahoma Territory Medical Association will meet at Guthrie, O. T., November 11, with Dr. E. O. Barker as president.—The Southern Surgical and Gynecological Association will meet at Cincinnati, Ohio, November 12 to 14, under the presidency of Dr. W. B. Haggard, Jr., of Nashville, Tenn.

Chicago Hospital for Nervous and Delicate Children.—During the coming year a special feature will be made of developing speech in those nervous, delicate or invalid children who have lost this power through illness. In these children, especially those who have had cerebral affections, normal speech is only possible with special training. A modern pathological laboratory has recently been finished, equipped with all modern apparatus for blood and urinary analysis. Besides, the school has a pathological laboratory and is planning the erection of a food laboratory. During the 3 years of its existence there have been from 14 to 18 children in the institution, which has accommodations for but 10.

Wisconsin College of Physicians and Surgeons, Milwaukee.—Dr. Gilbert E. Seaman has recently been appointed instructor of ophthalmology, and Dr. J. T. Madison has become adjunct professor of medicine.

Wisconsin State Medical Examining Board.—As this board has joined the interstate reciprocal commission, in which 30 States are already included, it will be possible by January 1, 1903, for any reputable physician to transfer his place of residence and practice from the State in which he lives to any one of the 30 other States without taking an examination.

Northwestern University Medical School.—Dr. Louis E. Schmidt has just been appointed clinical professor of genito-urinary surgery.

University of California College of Medicine.—In the recently published report of the University of California, a notable addition to the equipment of the University has been proposed, to consist of a great clinical hospital, to cost \$40,000.

Dr. Lorenz in Colorado.—Dr. Adolf Lorenz, of Vienna, operated at 2 hospitals in Denver, October 28, before the students of the Denver and Gross Medical Colleges. At St. Luke's Hospital he operated on 3 children in the morning, and at the County Hospital, in the afternoon, all of the patients having congenital dislocation of the hip. He also operated at Pueblo, October 30, before 600 physicians.

Leprosy in Iowa.—Two cases of leprosy, the only ones in Iowa, so far as is known, have been reported to the State

Board of Health. One is in a young Norwegian woman, about 21 years old, living near Humboldt; the other patient, the sex and age of whom have not been reported, is a resident of Gilmore City.

Rathbone Memorial Home for Aged and Infirm Persons, Evansville, Ind.—By the will of the late Mrs. Kate Rathbone, of New York, over \$20,000 were left to this institution, to which her sister-in-law has already bequeathed \$75,000.

CANADA.

(From our Special Correspondent).

McGill University.—Dr. T. H. Starkey, of University College, London, England, will, it is understood, be appointed professor of hygiene, replacing the late Dr. Wyatt Johnston.—Dr. W. M. Ford, who has been the Rockefeller fellow in pathology for the past year, has been transferred to the Rockefeller Institute in Chicago.—Subscriptions are being collected for the erection of a gymnasium, to cost \$100,000.—A liquid air plant has been established in the institution, the gift of Sir William MacDonald.

Instruction for Asylum Attendants.—The asylum of Ontario will give a course for the instruction of the attendants in the treatment and handling of patients, somewhat similar to that received by hospital nurses. Attendants who have taken lectures and training for 2 years will be granted a diploma.

Protestant Hospital for the Insane, Verdun, Quebec.—The new wing was opened for the reception of patients, October 27. This will accommodate 80 patients more, bringing the capacity of the institution to over 500 beds.

The Health of Canada.—Smallpox has again broken out in Ottawa, 3 cases having already been reported. In Montreal twice as many deaths occurred from typhoid fever during September than there were during August.

To Restrict Immigration.—In view of the large increase in immigration into Canada, the Minister of the Interior has arranged for the appointment of a medical officer whose duty it will be to examine into the health and circumstances of immigrants arriving at the various seaports, including persons who may be rejected by the United States commissioners at Canadian seaport towns. By this means it is intended to restrict immigration by preventing the landing of paupers and persons with dangerous diseases. Under the act passed at the last session of Parliament, the Government has full authority to report diseased immigrants.

MISCELLANY.

Smallpox.—Between July 13 and October 31, 1200 cases of smallpox have occurred in Barbados. Over 50,000 persons have been vaccinated. As a strict quarantine has been imposed by the surrounding ports against Barbados, business has been seriously affected, the customs revenue having declined during the last quarter over \$20,000.—An epidemic of smallpox has been reported on the Kamchatka peninsula, where 10,000 people are said to have died of the disease. Later reports state that the epidemic was measles, not smallpox.—The total number of smallpox cases reported in the United States from June 28 to October 31, 1902, was 11,014, with 595 deaths, as compared with 12,947, with 416 deaths, for the same period last year.

Tuberculosis in Alaska.—Out of 35 children from 18 months to 18 years of age, in or near Dutch Harbor, Alaska, one half are afflicted with tuberculosis. The most prevalent form of the disease affects the cervical lymphglands. Bony tuberculosis is also frequent, affecting the vertebrae, the ulna and the shoulder joint. Out of a population of 220 in Unalaska, 3 deaths from phthisis have occurred since June 1. Pneumonia is also quite frequent and there are some cases of syphilis in the village.

Yellow Fever on Shipboard.—The sailing ship *Comliebank*, which was ready to sail for Port Townsend, Washington, September 29, has been held at Panama on account of the appearance of yellow fever among the crew. Twelve men were moved to the hospital, but no deaths have yet been reported.

International Leper Treaty.—Dr. A. S. Ashmead, of New York, advocates an international leper treaty between the United States and Japan, since there are nearly 100,000 lepers in Japan. He cites the report that 100 Japanese lepers have recently come to this country, and thinks this

Government should enter into an amicable treaty with Japan for the purpose of determining by medical examination whether the future emigrants to America are leprosy before their departure from Yokohama, and for the prompt return, at the cost of this country, of those Japanese who may develop the disease after arrival here.

Bubonic Plague.—The efficacy of the measures taken to stamp out the plague in Yokohama, Japan, which was discovered October 6, is demonstrated by the fact that only 5 cases occurred up to October 18. Isolation was accomplished by quickly building a wooden fence 8 feet high, which was kept closely guarded. As a price was set on rats, over 2000 were destroyed in the quarantined quarter. The population of a part of the town was moved across the bay, where temporary buildings were put up. As a first instalment, 360 people were taken there, and their town houses were burned. The population has been forbidden to walk barefoot. The disease is supposed to have been brought into Yokohama in raw cotton from India.—It is reported that rats dead from the plague were discovered at Port Elizabeth, Cape Colony, Africa, September 4, but there have been no cases in human beings at any place in the colony.—But one fatal case of suspected plague has occurred at Odessa since October 21.

Porto Rico Medical Association.—This association has recently been organized to establish a place for medical discussion, where papers on medical subjects may be read. It is also hoped that a journal may soon be published. The following officers were elected: President, Dr. Quevedo Baez; secretary, Dr. J. N. Carbonel, and trustee, Dr. R. B. Lopez.

Cholera.—A cablegram, dated October 30, states that cholera has practically disappeared from the Island of Luzon, and that in Manila there had only been an average of 2 cases a day in the last 10 days. Twenty provinces are entirely free from the disease. Only 5 provinces are seriously affected now, Iloilo, Occidental Negros, Capiz, Samar and Misamis. While the mortality in the beginning reached 90%, it is now below 50%. Both Cebu and Manila have been declared clean ports.—Latest advices from Japan state that there have been 4329 cases with 1650 deaths.—In China there have been 40,000 deaths in Nanking, while there have been under 500 cases in Hong Kong. The American soldiers in Pekin are the only foreigners who have escaped the cholera. Out of 1175 deaths in Shanghai between June and September, 1902, 40 occurred among Europeans.—There have been 494 deaths in Jerusalem and 78 at Gaza during the week ending November 1. There is also great distress at Lydda, because of inadequate medical aid.—In Egypt the epidemic is rapidly decreasing, but 225 new cases with 212 deaths having been reported throughout all Egypt for the week ending November 1.—In the Amur districts the cholera is gradually decreasing.

Suicide Among Negroes.—The reports of the New Orleans Board of Health show a suicide-rate of 8.2 per 100,000 for the negro during the past 10 years. This rate is increasing rapidly, showing an increase of more than two-thirds in the last decade. Most of the suicides are due to suffering from illness or fear of death. In some cases, suicide resulted from the fear of being lynched. Between 1882 and 1892 the negro suicide-rate in New Orleans was 4.8 per 100,000; from 1897 to 1902 it was 9.2 per 100,000. To the use of cocaine is attributed not only the great number of suicides, but also the increase in lunacy among the negroes. Suicide is far more frequent among those with mixed blood than among the pure or nearly pure negroes. Among those of mixed ancestry, suicide is 3 times as frequent among those with French or African forefathers, as among American mulattoes of Anglo-Saxon ancestry.

Obituary.—Dr. Albert Blood, at Capron, Ill., October 22, aged 42 years.—Dr. C. Edwin Poyntz, at Point Lick, Ky., October 21.—Major J. C. Merrill, at Washington, D. C., October 28, aged 40 years.—Dr. Charles M. Stickler, at West Rockingham, Va., October 28.—Dr. Benjamin Lee Bird, at Leeland, Md., October 30, aged 61 years.—Dr. Francis F. Davis, at Oil City, Pa., October 31.—Dr. M. B. Carter, at Richmond, Va., October 28, aged 66 years.—Dr. A. J. Baxter, at Chicago, Ill., October 27.—Dr. Jacob P. Hoffa, at Washingtonville, Pa., October 27, aged 50 years.—Dr. C. B. Hawes, at Fox Lake, Wis., October 23, aged 91 years.—Dr. H. A.

Cayley, at Butte, Mont., October 25.—Dr. Leo Edward Vincent McPherson, at Palm Beach, Fla., October 29, aged 37 years.

CONTINENTAL EUROPE.

University Notes.—Berlin: Dr. Friedrich Kraus, of Graz, has been appointed professor of internal medicine and director of the second medical clinic, replacing the late Dr. Gerhardt.—Berne: Among 451 matriculated students in the medical school, but 199 are men, the remaining 252 being women students, the great majority of whom are Russians.—Copenhagen: Dr. Ehlers, well known from his investigations in leprosy, has recently been made professor.—Erlangen: Dr. Alfred Denker, of Hagen, has been appointed professor of otology and director of the otological clinic, replacing the late Dr. Wilhelm Kiesselbach.—Favières: A tablet in honor of Professor A. A. Liebeault, who first used hypnotism in the treatment of disease, has been placed on the house in which he was born. This tablet was unveiled in Dr. Liebeault's presence on his 79th birthday.—Göttingen: Dr. Hugo Ribbert, of Marburg, has been appointed professor of pathological anatomy in the place of Dr. Orth, who has become professor of pathology in Berlin, in the late Dr. Virchow's place.—Graz: Dr. Anton, who had been appointed professor of psychiatry in charge of the second clinic for mental diseases in Vienna, will remain at Graz.—Halle: The University of Halle celebrated its quadricentennial, November 1.—Paris: The Department of Public Assistance has consented to advance the sum of \$8,000,000 for the construction of new hospitals in Paris. Some of the oldest of the city's hospitals will be torn down and modern structures erected.

Food Adulteration in Russia.—The city laboratory, Lodz, found saccharine in 50% of 71 samples of syrup; injurious substances in 43% of as many samples of confectionery; aniline dyes and salicylic acid in 7 out of 9 samples of marmalade; and dirt, flies, moulds and hair in 4 out of 6 samples of cake. Out of 34 samples of milk, 14 contained dirty water, soda and pathogenic organisms; of 6 samples of sour cream, 2 contained milk, flour, dirt, moulds and putrefactive bacteria. Ptomaines were detected in Bologna sausage. Adulterations were found in vinegar, beer, soda water, sugar and other foods.

In Memory of Dr. von Coler.—A memorial to the late Dr. Alwin von Coler, surgeon-general of the German army, erected by the officers of the corps, was unveiled August 26 in Berlin, one year after his death.

Suicide in Vienna.—During the first 9 months of 1902, 250 men and 98 women committed suicide, and 367 other people made the attempt unsuccessfully. In age these persons ranged from a man of 87 and a woman of 86 to a boy of 15 and a girl of 3. The cause changed with the season. In spring and summer unrequited love was most prominent; in autumn and winter the chief incentive was poverty. Women preferred jumping out of windows, poisoning and drowning; men tried shooting, hanging and throwing themselves before trains.

Academy of Medicine, Paris.—The new building, which has just been completed, was opened November 4. Among the art treasures which were brought to light in moving are a portrait of Vesalius, by Titian, and a picture by Ingres. These were displayed at the opening.

Frigotherapy.—Raoul Pictet, of Switzerland, who discovered the liquefaction of oxygen, has lately invented a method of treatment which he calls frigotherapy. The patient is placed in a metal well lined with thick furs. The well is surrounded by an outer shell which is filled with a combination of sulphurous and carbonic acids in a liquid state, kept at 110° below zero. The patient, surrounded by furs and the icy liquid, is said not to feel cold; in fact, his temperature rises after 3 seconds treatment, increasing from ½° to 1° in 5 minutes. The duration of the treatment ranges from 5 to 15 minutes at a time. The discoverer himself, after 15 years of illness, considered himself cured after he had made 8 descents into the well.

A Novel Medical Bureau.—A medical bureau is being established in St. Petersburg with the object of furnishing medical companions to patients going to European summer resorts. The members of the bureau will be young physicians who know several foreign languages.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

October 18, 1902. (No. 2181.)

1. Introductory Address at the Opening of the University College, Liverpool. FREDERICK TREVES.
2. On Exaltation of Bacterial Virulence by Passage Outside the Animal Body. E. W. AINLEY WALKER.
3. Recent Progress in the Housing of the Insane.
GEORGE W. MOULD.
4. A Discussion on the Treatment and Care of Persons in the Early Stages of Unsoundness of Mind. JOHN SIBBALD, DAVID YELLOWLES, JOSEPH WIGLESWORTH, OSCAR WOODS, DAVID BOWER, ROBERT JONES, JAMES STEWART, A. T. SCHOFIELD, W. LLOYD ANDRIEZEN, T. SEYMOUR TUKE, WILLIAM DOUGLAS, G. E. MOULD, FLETCHER BEACH, ALEXANDER BRUCE, ERNEST S. REYNOLDS, JAMES SHAW and G. W. MOULD.
5. The Hospital Treatment of the Insane as Carried Out at the London County Asylum, Bexley; with Some Experiences as to the Value of Villas for Convalescing and Quiet Chronic Patients.
C. HUBERT BOND.
6. A Discussion on the Relation of Neurasthenia to Insanity. T. CLIFFORD ALLBUTT, DAVID YELLOWLES, C. S. MORRISON, FLETCHER BEACH, SEYMOUR TUKE, W. L. ANDRIEZEN, JOHN SIBBALD, HARRY CORNER, BEDFORD PIERCE, ALEXANDER BRUCE and A. T. SCHOFIELD.
7. On Apprehensiveness, Stupor and Katatonia.
ROBERT JONES.
8. A Discussion on Syphilis as a Cause of Insanity. F. W. MOTT, J. S. BURY, JOSEPH WIGLESWORTH, GEORGE E. SHUTTLEWORTH, FLETCHER BEACH, OSCAR WOODS, ROBERT JONES, W. LLOYD ANDRIEZEN, C. S. MORRISON, E. S. REYNOLDS, MAURICE CRAIG and R. R. ALEXANDER.
9. The Action of Heroin and Dionin on the Respiration.
C. R. MARSHALL.
10. The Digestibility of Fats and Oils, with Special Reference to Emulsions. J. W. WELLS.
11. Synthetic Purgatives: the Purgative Action of Dihydroxy-Phthalo-Phenone (Phenolphthalein, Purgin).
F. W. TUNNICLIFFE.
12. The Therapeutic Value of Arsenic and the Justification of its Continued Use in the Light of Recent Observations Concerning its Toxic Action.
RALPH STOCKMAN.
13. Arsenic in the Treatment of Chorea.
FRANK M. POPE.
14. On the Therapeutic Value of Cantharidine.
OSCAR LIEBREICH.
15. The Pharmacological Action of Mannitol Pentanitrate.
C. R. MARSHALL and J. H. WIGNER.
16. The Materia Medica of the Intratracheal Treatment of Pulmonary Diseases. COLIN CAMPBELL.
17. The Local and General Treatment of Diphtheria.
NESTOR TIRARD.
18. Pure Urea in the Treatment of Tuberculosis.
HENRY HARPER.
19. The Action of Acids upon Voluntary Muscles and Bloodvessels. R. B. WILD and J. N. PLATT.
20. Some Suggested Standards for Pharmacopoeial Preparations. J. C. McWALTER.
21. On the Pharmacological Action and Therapeutical Employment of Pseudoaconitine and Japaconitine.
J. T. CASH.
22. On the Use of Alkalis in Relieving Pain.
LAUDER BRUNTON.
23. Hypodermic Purgatives. W. E. DIXON.

2.—Walker selected an old laboratory culture of bacillus typhosus and made 2 subcultures on agar. These cultures were used for inoculation into blood and into agar. As a result of these experiments the author concludes that the virulence of a bacterium may be increased by passage through a bacteriolitic fluid *in vitro*, and that the increase of virulence which may be brought about by the passage of the organisms through the body of a living animal is probably attributable to the effect of the successful resistance of the surviving micro-organisms to the bacteriolitic action of the living tissues. [J. M. S.]

4.—Sibbald advocates the establishment of wards for the treatment of early cases of unsoundness of mind in general hospitals. While the modern asylum is responsible for the greatest benefit that has ever been conferred upon the insane, and while many patients who have been in these asylums have shown themselves to be capable business men and trustworthy in every way; yet to have been in an asylum is regarded as evidence of having shown more or less mental instability or incapacity. He believes that patients in the incipency of mental diseases, if treated in a general hospital, would not have this stigma attached to them. The desire is not to place any patient in a general hospital who would be more efficiently treated in an asylum. A mental patient should not be allowed to remain in a general hospital longer than 6 weeks, and female nurses should be employed in the treatment of both male and female patients. Yellowles did not agree with Sibbald, as he believes that removal from home surroundings, and open-air life in the country, with rest, exercise, quiet and nourishment, is better treatment for a mental patient than shutting him up in the wards of a city hospital. With this opinion Wigglesworth, Woods, Bower, Jones and others agree. [J. M. S.]

6.—Allbutt opened a discussion on the relation of neurasthenia to insanity in the section of Psychological Medicine of the British Medical Association. The neurasthenic is one who has never much reserve in time of stress, who needs inordinate time for repair and who may be exhausted beyond the possibility of full repair. Neurasthenia also consists in the lowering of nervous potential, so that recovery is imperfect. This condition is remediable by rest, sleep and good food; but insanity is not remediable by these measures alone. Hysteria consists in an untimely interference of particular inhibition. Hypochondriasis consists in a fixed idea. If an apparent neurasthenic becomes a hypochondriac and then becomes insane, the process is rather one of insanity passing through such phases than the intensification of the phases themselves. The relation of neurasthenia to insanity, therefore, cannot be safely discussed without a very close attention to diagnosis. We are apt to regard a case of insanity as the issue of a neurasthenia when the disorder has been insanity from the beginning. Yellowles said that neurasthenia is often the result of the anxieties and difficulties of life vainly struggled against. [J. M. S.]

7.—Katatonia implies a definite and separate type of insanity commencing with melancholia, passing into mania, then into stupor and terminating in dementia. It is not a separate form of insanity, but is a rare one which occurs in the course of the cyclic forms of insanity. The essential feature is a tendency to the recurrence or repetition of motor and mental impulses followed by negativism. The onset usually follows a period of marked apprehensiveness. There is first a stage of stupor, followed by an automatic or cataleptic state. The course and termination of the disease depends upon the form of insanity which this condition complicates. The longer the attacks and the shorter the remissions, the less likely is improvement to take place. The disease is caused by some great reduction of nerve power which lowers the resistance of the cerebral cortex so that a stimulus, otherwise normally received and reacted to, causes a mental breakdown. Masturbation in males and any unusual responsibility are

among the most potent causes of this reduction of nerve power. After death the deeper layers of the cerebral cortex show cells with swollen nuclei, granular degeneration of the Nissl bodies, the disappearance of fiber plexuses, caused by the destruction of the neurons and the increase of glia tissue. [J. M. S.]

8.—**Syphilis may act a cause of insanity** (1) by moral shock, (2) by the effect of the poison and anemia on the general nutrition of the body, (3) by the production of meningitis, gummatous tumors, endarteritis and periarteritis from the action of the specific poison, (4) by the production of arteriosclerosis and (5) by the production of general paralysis. Mott believes that syphilis is by far the most important factor but not absolutely essential in the causation of general paralysis. Bury said that the type of brain affection produced by congenital syphilis is a slowly progressive dementia in consequence of cortical changes. He believes that other poisons than syphilis may cause general paralysis. Wigglesworth said that syphilis is a very important factor in general paralysis. Shuttleworth said that a very small proportion of idiots present the actual stigmata or a history of inherited syphilis. Beach said that syphilis had small influence in the production of idiocy. Morrison reported 4 cases of painters suffering from chronic lead poisoning who had all the classical symptoms of general paralysis. [J. M. S.]

9.—In both heroin and dionin the convulsive effect of morphine is increased at the expense of the sedative effect. After small doses a mild sedative effect is as a rule the only symptom, but when the dose is increased, instead of an increase of this action the animals become excited and, with a sufficiently large dose, this passes into convulsions. Compared with morphine dionin is less toxic, less sedative, more convulsive and less depressing to the respiratory center. Heroin, on the other hand, is more toxic, more convulsive and more active to the respiratory center. As a result of experiments Marshall concludes that in appropriate doses heroin can prolong inspiration and increase the depth of respiration, but that the limits of its beneficial action are soon passed. In moderate doses it depresses the respiratory center. The author is doubtful whether these drugs will prove of much use therapeutically. The limits of the beneficial action of heroin, he thinks, are too narrow. [J. M. S.]

10.—Wells publishes tables which show that petroleum is practically all eliminated and not absorbed, and that cod-liver oil is absorbed practically to the same extent when given either in the form of emulsion or pure cod-liver oil. And not only is the cod-liver oil absorbed, but it increases the absorption of other fats of the food to a marked degree. The use of cod-liver oil, especially in an emulsion, shows a remarkable saving of the proteid food in a comparative way. Morrhual contains nitrogen. This Wells considers to be a disadvantage, because those oils which have the minimum amount of nitrogen are the best. He found that the light-colored oils have less nitrogen in them than the darker oils. Some of the emulsions of cod-liver oil separate so that the amount of oil in one spoonful may vary 300% from that in another. [J. M. S.]

11.—As a result of the study of phenolphthalein or purgen Tunnicliffe finds that for children it is a useful aperient in doses of from $\frac{3}{4}$ to $2\frac{1}{4}$ grains. For adults the drug must be given in doses of from $1\frac{1}{2}$ to $4\frac{1}{2}$ grains. In cases of obstinate constipation the dose must be increased to 15 grains. Phenolphthalein produces purgation in jaundice. It has no irritating action upon the kidneys, and its depressing action upon the circulation is less than that of magnesium sulphate. [J. M. S.]

12.—One result of the epidemic of arsenical poisoning is that there is no doubt as to the possibility for evil of small quantities of arsenic taken daily over a period of time. At the same time, Stockman has no feeling of hesitation as to the great therapeutic value of arsenic in certain

morbid conditions, and as to the justification of the continuance of the use of this drug in these conditions. Serious chronic arsenical poisoning as a result of the administration of this drug is a rarity. The toleration of arsenic varies in different individuals and under different conditions. Arsenic is of signal value in chorea, malaria, asthma and chronic heart affections. In the treatment of chloro-anemia it is often combined with iron, but there is no evidence to show that arsenic acts as a hematinic tonic. When small doses are given daily for a long period, the number of red corpuscles remains unaltered, but the bone marrow presents an increased blood supply, an increased number of leukoplasmic cells and a decrease of marrow fat. The author attributes the value of arsenic in pernicious anemia to a specific effect on a parasite rather than to any stimulant action on the bloodforming organs. Gautier has made very extravagant claims regarding the therapeutic value of sodium cacodylate and sodium-methylarsenate, which have not been borne out by the experience of others. [J. M. S.]

13.—**The treatment of chorea with arsenic** is inadvisable (1) in very acute cases with coma or paralyzes, (2) in those that have been treated for some time with small doses of arsenic, (3) in those in which there is reason to suppose that the rheumatic process is going on in the acute form, and (4) in cases of advanced cardiac disease. Pope gives the following principles for the administration of arsenic in the treatment of chorea: (1) See that the tongue is clear before commencing treatment, and, if not, give a mild mercurial purge and a stomachic mixture for 48 hours. (2) Put the patient on a bland and easily digested diet. (3) Give the drug in a much diluted form and in the same dilution throughout. (4) Do not discontinue on the first attack of vomiting, which may be due to accidental causes. (5) Increase the dose daily. (6) Keep the patient in bed throughout the treatment. (7) If the vomiting persists, discontinue the drug for 24 hours and then give the same dose as the last. (8) Examine the patient very carefully daily for any sign of toxic action. What must be aimed at is a form of shock action on the nerve tissues, and this may explain why long continued treatment with small doses fails. On discontinuing the arsenic, Pope usually gives a mixture continuing iron for a few days. [J. M. S.]

14.—Liebreich administers cantharidine in tincture of orange peel in the proportion of 0.2 cantharidine to 1,000 of the tincture. One cc. of the liquid, therefore, contains 0.0002 gm. of cantharidine. If the doses are kept within the limits of 0.5 cc. to 0.75 cc., no toxic effects are observed. Before administration the urine should be examined for albumin, and if this substance is found, or the patient suffers any pain, a few drops of tincture of opium will restore the normal conditions, and the treatment may be recommenced with a smaller dose. The effect of the drug is to render the passage of nutritive fluids through the capillaries less difficult than normal. Cantharidine is of use in the treatment of lupus vulgaris, and to induce such drugs as potassium iodide and mercury to pass through the capillaries more easily than under ordinary conditions. [J. M. S.]

15.—**Mannitol pentanitrate** is prepared by the action of pyridin on mannitol hexanitrate. The substance produces a fall in the bloodpressure. [J. M. S.]

16.—Campbell uses intratracheal injections to cause the expulsion of pathological secretions, which, on account of clinging to the walls of the air passages, occupy space required for breathing purposes, and also to bring the drug injected into direct contact with the diseased mucous membrane. He showed test-tubes to illustrate the fact that the addition of 5% of medicinal izar to tuberculous sputum causes liquefaction of the sputum. He exhibited 5 patients in whom such treatment has been productive of much benefit. [J. M. S.]

17.—Tirard thinks that no other remedy gives the same sense of security and hope in the treatment of diphtheria

as antitoxin; that most of the ill effects attributed to antitoxin are really sequelæ of the disease; that the disease, even in its milder forms, cannot be safely treated with any local or general measures; and that, after the use of antitoxin, greater security is obtained in laryngeal cases by the use of intubation and performance of tracheotomy.

[J. M. S.]

18.—Harper uses pure urea in the treatment of pulmonary tuberculosis. He begins with 20-grain doses, 3 times a day, between meals, dissolved in water flavored with peppermint, and gradually increases the dose up to 60, 80, or 100 grains 3 times a day. In 1% or 2% of cases symptoms of gastritis appear and should be the indication for stopping the urea for a few days and then beginning again. Three per cent. of pure urea added to a virulent culture of tubercle bacillus kills the bacillus. In cases of mixed infection, he has given calcium sulphide in doses of 1½ or 2 grains, 4 or 5 times a day, in combination with the urea with good results. In proportion as he has increased the nitrogen in tuberculosis, the death-rate has decreased. Urea fulfils many of the requirements of a remedy for tuberculosis; (1) because it is not a corrosive, poisonous to the tissues, so that it can be administered in doses sufficiently large to exert an inhibitory power on the bacillus; (2) because it is capable of good and almost incapable of harm; (3) because it is an animal substance not foreign to the economy, and (4) because its action is to supply something that is needed to reinforce the body to resist the invasion of the intruder.

[J. M. S.]

19.—Wild and Platt present results of their studies on the action of acids upon voluntary muscles and blood-vessels. They have demonstrated that, up to a certain strength, all acids as direct irritants to the isolated muscle. Hydrochloric acid in dilution of 1 to 6,000 causes immediate and extreme contraction of the vessels. Weak dilutions, up to 1-25,000, also cause strong contraction. In dilutions of 1-30,000 to 1-2,000,000 a dilation is first produced, followed by contraction. In a general way this was the effect following the use of solutions of lactic, tannic and gallic acids. It seems worthy of investigation whether the habitual secretion of excessively acid urine, by maintaining the renal vessels in a contracted state, has any share in the etiology of chronic interstitial nephritis and gouty kidney.

[J. M. S.]

21.—Pseudaconitine and japaconitine may be used to moderate circulatory activity in some febrile states, for the relief of pain and for other purposes for which aconitine has been employed. [J. M. S.]

22.—Brunton contributes a note on the use of alkalis to relieve pain. [J. M. S.]

23.—Drugs producing a purgative action on injection may be divided into (1) vegetable purgatives, (2) salines, (3) drugs acting peripherally and (4) drugs of the morphine series. As examples of the vegetable purgatives may be mentioned colocynth, senna and podophyllin. The subcutaneous injection of the vegetable purgatives must be ascribed to a specific action of the drug. It is probable that a portion of the drug is excreted into the gut and then may exert its influence in the ordinary way. Solutions of the vegetable purgatives, however, lead to local irritation which may end in ulceration. Magnesium sulphate, when administered subcutaneously in doses of 1½ grains increases peristaltic movements. Of the drugs that act peripherally, those that affect motor nerve endings produce increased peristaltic movements as a result of stimulating the vagus. The digitalis group belong to this class, and they are inapplicable for use on the bowel because of their action on the heart. Pilocarpine, physostigmine and muscaine are prohibited on account of their action on the involuntary muscles of the bronchi, stomach, etc. Colchicine cannot be used on account of its action on the stomach and the medulla. Veratrine and barium stimulate involuntary muscles, but they have no selective ac-

tion on that of the intestine. Atropine is said to depress the inhibitory nerve fibers, but there is no evidence to prove it. Of the drugs of the morphine series, apocodeine gives rise to purging without vomiting. In doses of 0.03 gm. (6-13 grain) hypodermically it produces purgation in between 5 minutes and ½ hour in cats and dogs. It has been used once in a man in whom there was no constipation. About 3-8 of a grain were administered in the arm, and soft secretions were passed within an hour or two. Apocodeine lowers bloodpressure, produces vasodilation and increases peristaltic movements as a result of its sedative action on the sympathetic inhibitory ganglia. It does not produce vomiting. Dixon suggests its extensive trial, using a 1% or 2% solution of the hydrochloride in doses of 2 or 3 cc. The solution should be neutral and should be filtered before use. [J. M. S.]

LANCET.

October 18, 1902.

1. An Address on the Medical Profession in Relation to the Army. WILLIAM TAYLOR.
2. Three Lectures on Some Morbid Conditions of the Mouth. Lecture II. EDWARD W. ROUGHTON.
3. The Treatment of Psoriasis With Myelocene. D. CHALMERS WATSON and J. A. DOUGLAS THOMPSON.
4. Nasal Obstructions and Deformities of the Upper Jaw, Teeth and Palate. MAYO COLLIER.
5. Cancer of the Esophagus Without Obstruction. J. G. EMANUEL.
6. The Treatment of Atonic Dilatation of the Stomach by Means of High-Frequency Currents. ALEXANDER CROMBIE and T. J. BOKENHAM.
7. Notes on the New System of Treatment in Pulmonary Phthisis. DUNCAN TURNER.
8. Malignant Tumor of the Kidney in Childhood. J. EUSTACE WEBB.

2.—Abstract will appear when concluded.

3.—Watson and Thompson discuss the treatment of psoriasis with myelocene, a preparation of bone marrow. They record the results obtained by the local treatment with myelocene in a number of cases. The first reported case was that of a man, 24 years of age, a sufferer with epilepsy, who had had psoriasis for 9 years. He made a good recovery and the beneficial results of the treatment were fully maintained 2½ months after cessation of treatment. The second case occurred in a man, 60 years of age, in whom psoriasis had existed for 10 years. In this case within 10 days after the commencement of treatment there was decided improvement. The third case occurred in a debilitated woman, 25 years of age, who had been troubled with psoriasis for 3 years. It was noted in this case that permanent relief from the irritation resulted from the first application. The fourth case was one of psoriasis of the scalp of 3 years duration in which complete recovery ensued after 10 days of treatment. The fifth case was one of psoriasis of 9 years duration. The results of the treatment in this case were not satisfactory. [F. J. K.]

4.—Collier discusses the relationship between nasal obstruction, deformities of the upper jaw, teeth and palate, presenting a number of cases illustrating the latter. The author's communication tends to show, in the first place, that in impeded nasal respiration there is a difference in the pressure on the outside of the young and growing skull, altering and affecting the curve of the upper jaw and the shape of the face and palate. It is shown that in young animals, the nasal cavities of which have been obstructed for the purpose of scientific observation, a profound alteration takes place in the development of the upper jaw and a marked alteration in the curves of the alveolar arch, and position and height of the palate. Collier believes that heredity has nothing to do with these changes, as is shown by the fact that they are not present in infancy but take place later in youth. The effect upon the bone is produced by the passage of air through the mouth, which abstracts the contents of the nasal chambers and so produces an increased pressure of the nasal box. This increased pressure not only pushes up and elevates the hard and soft palate,

but it squeezes and approximates the halves of the upper jaw, thus impeding its development. Professor Ziem, in his experiments upon animals, has shown the truth of this explanation. If a manometer be connected with the nose and fitted accurately during each oral inspiration, the mercury will ascend in the proximal limb; this is considered by the author as an absolute proof of his theory. [J. H. G.]

6.—Crombie and Bokenham discuss the treatment of atonic dilatation of the stomach by means of high-frequency currents. They report 17 cases which show the result of this method of treatment. Their experience leads them to think that by this treatment increased tonicity, either directly or indirectly through the vagus, to the unstriated fibers which constitute the muscular wall of the stomach, is brought about. The improvement in digestion which follows is probably the result of the restoration to a more normal condition of the circulation and bloodsupply to the gastric glands, consequent on the return of the stomach to its natural size and position. [F. J. K.]

7.—Turner contributes notes on a new system of treatment in pulmonary phthisis. This article is based on the result of observations made in private practice and in the Sanatorium for Consumptives, Mount Macedon, near Melbourne. The author administers remedies through the skin, and his experience leads him to believe that all the physiological effects of the remedies ordinarily employed in phthisis can be obtained by external use; the combination employed by him being a mixture of 4 drams of creosote or guaiacol, one dram of oil of citronella, and cod-liver oil to make up 4 ounces; the oil of citronella is added merely to disguise the smell of the creosote and cod-liver oil. He has used the oil-massage treatment for 3 seasons at the sanatorium above mentioned. He contended that, since the oil-massage treatment was instituted, the results in the sanatorium have been better. The unpleasant odor of the cod-liver oil and creosote is the only drawback to the treatment; its advantages are many, including the immediate relief of symptoms, the fever usually declines, night sweats cease, the appetite improves, there is a general feeling of well-being, improvement in the lungs occurs, and the patient takes on flesh. In private practice he uses pure olive oil alone. He reports 4 cases which came under his observation in private practice. [F. J. K.]

8.—Webb reports a case of malignant tumor of the kidney which occurred in a girl, 6 years of age. The chief points of interest in this case are: (1) The apparent health of the child with so considerable a growth; (2) the acute peritonitis masking the true nature of the case and leading to the diagnosis of acute inflammatory disease ending in abscess; and (3) the fatal result of the operation from hemorrhage. [F. J. K.]

MEDICAL RECORD.

November 1, 1902.

1. The Use of Concentrated Actinic Sunlight in the Treatment of Tuberculosis. J. W. KIME.
2. Some Experiments with Paraffin. A. E. COMSTOCK.
3. The Use of the Clinical Thermometer as an Aid in Quarantine Inspection. A. H. DOTY.
4. X-Rays in the Treatment of Cancer and Other Malignant Diseases. EMIL H. GRUBBE.
5. Hydremia and Malaria. R. CADWALLADER.

1.—Kime describes his method of treating tuberculosis with concentrated actinic rays. His series of cases amounts to 60 up to the present writing. Of these, in 12 the disease has been arrested, (a term which he uses in preference to 'cured'), 11 more were practically arrested, 5 were discharged after a few days rest as incurable, 31 are still under treatment and for the most part are doing well. As to the action of actinic light: (1) The human body is translucent to it. (2) The irritant action of the light on the living body cells is a direct stimulus to them. (3) A high percentage of the light is absorbed by the tissues through which it passes. (4) The light which is absorbed by the cells of the body produces definite chemical changes in them. (5) Actinic light inhibits and destroys bacterial life. As none of the structures of the

body is beyond the reach of strongly concentrated actinic light, the writer believes that none of its tissues lies beyond the therapeutic application of the light. [T. L. C.]

2.—Comstock has made a series of experiments with paraffin, in view of solving the questions to which the subcutaneous injection of this substance has given rise. It is his opinion that paraffin must be used at all times above the body temperature, in order to preclude the possible formation of emboli. There is little danger of overdose, since experiments have seemed to show that the toxic dose would be about 15 pounds for the average person. The best paraffin to employ is one having a melting point of 106°-107° F. [T. L. C.]

3.—Doty, writing of the use of the clinical thermometer as an aid in quarantine inspection, gives it as his opinion that a temperature above 99.5° F. may be assumed to indicate an abnormal condition, even in persons who otherwise appear perfectly well. If such a temperature is due to excitement or other temporary cause, it will not require a long detention to prove this fact and will not, therefore, interfere to a serious extent with passengers and crews in transit. [T. L. C.]

MEDICAL NEWS.

November 1, 1902. (Vol. 81, No. 18.)

1. Shortening of the Radius in Colles's Fracture. GEORGE RYERSON FOWLER.
2. Report of Ninety Cases of Typhoid Fever in Infants and Children. ISAAC A. ABT.
3. Parasitic Amebæ. FRÉDÉRIC G. CANNEY.
4. Vertigo in Neurological Diagnosis. PEARCE BAILEY.
5. Ocular Vertigo. WILBUR B. MARPLE.
6. To What Extent, If at All, Should Physicians Dispense. H. C. MASLAND.

1.—Fowler says that, in cases in which deformity resulting from failure to reduce the displaced ulna is of sufficient importance, he removes the head of the ulna through an incision along the inner border. The amount of bone to be removed will depend upon the amount of impaction of the fragments of the radius and consequent shortening of the latter. [T. M. T.]

2.—Abt, in his observations of typhoid fever in children, found: (1) Out of 90 specimens of urine, representing 15 cases of typhoid fever, 17 specimens, representing 5 cases, showed the presence of the typical typhoid bacillus; (2) in 18 specimens varieties of the bacillus coli and of the typhoid germs were found; (3) in the greater number of cases the typhoid organisms were first found from the end of the third week to the middle of the fourth week of the disease. They may, however, make their appearance as early as the end of the second week, or as late as the fortieth or forty-fifth day; (4) the typhoid bacillus, when accompanied by other species, especially the staphylococcus pyogenes aureus, may occur in such small numbers as easily to escape notice; (5) As pointed out by Horton-Smith and Petrusky, the typhoid bacillus may be found in the urine in such large numbers as to render the urine turbid; (6) the largest number of typhoid bacilli in the urine is more likely to be found just after the height of the fever, or at the beginning of the defervescence, from which time they usually decrease in numbers as long as the examinations continue; (7) in the cases examined by the author, in which the bacillus of typhoid was found, albumin was always present, frequently in large amount; (8) in the cases that contained the typical typhoid bacillus pus was almost invariably demonstrable, even though in many cases no pus microbes were present; (9) the results here presented, as well as those of other investigators, demand that a systematic bacteriological examination and centrifugalization of all urines from typhoid cases should be made; (10) when the typhoid bacillus is detected by this means, some measures of prophylaxis should be taken against infection. [T. M. T.]

4.—Bailey makes 2 varieties of vertigo of the nervous system: (1) Subjective; (2) objective. Its neurological interest is associated with the neuroses and with diseases of the brain. The author mentions the following diseases in

which vertigo is an important symptom: (1) Neurasthenia; (2) hysteria; (3) cerebellar ataxia; (4) epilepsy; (5) general paresis; (6) cerebral endarteritis; (7) apoplexy; (8) cerebral tumors and abscesses; (9) trauma. [T. M. T.]

5.—Marple makes the following statements: (1) The most common cause of ocular vertigo is the diplopia following a paralysis or paresis of some nerve supplying an ocular muscle; (2) the less conspicuous the ocular anomaly is to the observer, the more apt is the patient to suffer from vertigo; (3) failure of the vertigo to disappear when an eye is closed does not necessarily exclude the possibility of the existence of some muscular anomaly of the eye. [T. M. T.]

6.—Masland believes that all physicians should be equipped with a few of the standard tablets for immediate administration in emergency cases; that extensive dispensing is purely a matter of policy and to be decided by the individual physician; and finally, that the physician should never permit himself to lose grasp of the complete armamentarium at his disposal. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

November 1, 1902.

1. A Case of Necrosis of the Mucosa of the Large and Small Intestine, with Hemorrhage into the Tissues, produced by Streptococci. H. F. HARRIS.
2. Rotary Curvature of the Spine; a Reply to Dr. Lovett. A. B. JUDSON.
3. The Modern Basis of Dietetic Treatment in the Uric Acid Diathesis. ALFRED C. CROFTAN.
4. The Medical Treatment and Management of Acute and Chronic Cholelithiasis. LEONARD WEBER.
5. The Effect of Climate on Laryngeal Tuberculosis, with Special Reference to High Altitudes. ROBERT LEVY.
6. The Burke Foundation, and a Plea for Proper Homes for the Convalescent Poor of Large Cities. S. A. KNOPF.
7. The Dependence of Skin Affections Upon Nutritive Disturbances. W. R. INGE DALTON.
8. On the Immediate Repair of Cervix Lacerations. ANNA F. DONOGHUE.

1.—Harris relates in detail the clinical history and post mortem findings of a case of **necrosis of the intestinal mucous membrane with hemorrhage** due to streptococci. The patient, a primipara, entered the hospital with eclampsia and died 2 days after Cesarean section, by which a dead child was extracted. The cause of death was exhaustion. A full histological description of the intestinal walls follows. The gross lesions greatly resembled those found in mercurial poisoning. [M. O.]

2.—In a reply to Dr. Lovett, Judson reports his experiments which sustain views diametrically opposite to those advanced by Dr. Lovett. He believes that very strenuous efforts to cure **rotary curvature** are unnecessary, and advises rest with special exercises and attitudes. [M. O.]

3.—Croftan states that increase of **uric acid in the blood** may be due to increased formation, decreased destruction or retention or to several of these combined. The dietetic treatment is given to prevent the increase of uric acid in the blood and to promote the solubility of uric acid, either in the blood or in the concretions already formed. The effects of meat, eggs, milk, fat, cereals, vegetables and beverages are fully discussed. [M. O.]

4.—In the treatment of acute **cholelithiasis**, Weber advises morphine, hot applications and a large enema, followed by a laxative. After the acute attack, all food rich in lime and magnesia, such as peas, beans and cereals, is omitted from the diet, which should be moderate. A daily laxative is advised in such cases. Cases of cholelithiasis in women are often insidious and chronic, being frequently treated under the diagnosis of gastralgia. In a number of cases medical treatment is useless, operation alone being indicated. A number of case-histories follow. [M. O.]

5.—Levy finds that, when both lung and throat lesions have developed in Colorado, the throat lesion manifests itself 48 weeks later than if originating elsewhere. In cases in which lung lesions develop elsewhere, but the throat lesion in Colorado, the throat lesion manifests itself 62 weeks later than in those originating elsewhere. It would seem, therefore, that the **effect of high altitudes upon laryngeal tuberculosis** is to retard its development by more than one year. [M. O.]

7.—Dalton believes that **skin affections are due to nutritive disturbances**. He, therefore, insists that patients with skin diseases move their bowels regularly every day; abstain from alcohol and malt; take no sweats whatever, and no meat for 6 weeks; and that they drink much water. He also gives tablets containing naphthalin, ipecac, calomel, strychnine and pilocarpine. [M. O.]

8.—Donoghue advises the **immediate repair of lacerations of the cervix** among the middle and lower classes, if the tear is extensive. She reports good results in 8 cases. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

October 30, 1902. (Vol. CXLVII., No. 18.)

1. The Teaching of Surgery. HERBERT L. BURRELL.
2. A Report of the Blood Examination in Ten Cases of Severe Burns of the Skin. EDWIN A. LOCKE.
3. Septicemia and the Curette. H. PLYMPTON.
4. Severe Extrinsic Traumatism of the Spine. THOMAS H. MANLEY.

1.—Burrell believes that there should be 3 types of surgeons in a well-arranged surgical department: (1) The teaching surgeon; (2) the research surgeon; (3) the practising surgeon. [T. M. T.]

2.—In summing up Locke's article the following important points are mentioned: (1) The blood flows sluggishly, and is of a peculiar dark, purple appearance; (2) an immediate increase in the number of erythrocytes, in severe but not fatal cases, of from 1,000,000 to 2,000,000 per cmm., takes place within a few hours; in fatal cases, of from 2,000,000 to 4,000,000 per cmm.; (3) a rapidly increasing leukocytosis constantly occurs; in cases ending in recovery often of 30,000 or 40,000 per cmm.; in fatal cases usually above 50,000 per cmm.; (4) morphological changes in the erythrocytes are slight; (5) the percentage of neutrophils is somewhat above the normal, but not so much as in the ordinary inflammatory leukocytosis; (6) a considerable destruction of the leukocytes takes place, especially in very severe burns; (7) myelocytes may be present in small numbers in severe cases; (8) there is, as a rule, marked increase in the number of blood plates. [T. M. T.]

3.—Plympton advocates, in place of **curetting**, the use of combined alkaline solutions at a temperature above 100° and a strict avoidance of bichloride, carbolic acid, formaldehyde or any antiseptic of an acid reaction or astringent nature, which would coagulate the fibrin and albumin of the blood. The author's method is: (1) The gentle removal of whatever fragments are lying in the uterine cavity, by means of forceps, care being taken not to tear from the walls any adherent piece; (2) the gentle flushing of the uterine cavity with alkaline solution (110°), the reservoir containing the fluid being not more than 2 feet above the level of the hips. The flushing should be done every 2 hours with one quart of solution. [T. M. T.]

4.—Manley divides **spinal injuries** into 2 classes: (1) Those which involve the rachidian structures alone; the osseous, ligamentous, muscular and vascular; (2) those in which the effects of violence fall with greatest force on the central organ, the cord, its meningeal investments, its ganglia or medullary substance. The **osseous structure** of the vertebral column consists essentially of 2 parts: (1) A segmented whole, made up of the vertebral bodies, with an intervertebral substance and an enveloping sheath of a tough, fibrous structure. This, properly speaking, is the triple curved backbone, which supports the head and carries the whole trunk. This is a flexible structure which, within various limits may be bowed or twisted with remarkable impunity. (2) The posterior stage work of the spinal col-

umn, the vertebral apophyses which serve chiefly the double purpose of providing a hollow tube for the cord, and attachments for ligaments, muscles and tendons. The author also mentions the primary extrinsic lesions of the spine as follows: (1) Contusions, blows or falls; (2) sprains, hyperflexion or torsion; (3) hemorrhage—intra- and extrarachidian; (4) fractures—simple and open; (6) visceral complications. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

November 1, 1902.

1. Tuberculosis of the Myocardium. JAMES M. ANDERS.
2. A Case of Scurvy, With Unusual Poverty of the Blood. JAMES ELY TALLEY.
3. Some Physiologic Factors Involved in the Origin of Scurvy (Scorbutus). ROY RAVONE ROGERS.
4. Traumatic Rupture of the Abdominal Viscera Without External Signs of Injury. DANIEL N. EISENDRATH.
5. The Relative Merits of the Various Methods of Intestinal Anastomosis. R. C. Coffey.
6. Principles Controlling Operative Interference in Strabismus. EDWARD JACKSON.
7. The Nonoperative Treatment of Strabismus. GEORGE M. GOULD.

1.—See *Philadelphia Medical Journal*, June 21, page 1096.

2.—See *Philadelphia Medical Journal*, June 21, page 1097.

3.—Rogers presents an article entitled **some physiological factors involved in the origin of scurvy (scorbutus)**. He writes the following summary: (1) The direct cause for the appearance or continuance of an attack of scurvy does not depend upon the activity of micro-organisms, although the latter may establish conditions favorable to the onset of scurvy or aggravate a case already existing. (2) The direct cause for the appearance or continuance of an attack of scurvy lies in the establishment of the condition known as "lack of oxygen" in the tissues. (3) Those conditions which tend to prevent the formation of acid, i. e., of hydrogen ions (and possibly other products also), in the tissues and tend to increase the store of available alkalinity, i. e., hydroxyl ions, in the blood and lymph, are the conditions most antagonistic to the development of scurvy or its continuance, and those most favorable to its cure. [F. J. K.]

4.—See *Philadelphia Medical Journal*, June 21, page 1103.

5.—See *Philadelphia Medical Journal*, June 21, page 1103.

6.—Jackson discusses the **principles controlling operative interference in strabismus**. He contends that strabismus operations will become scientific and satisfactory in proportion as they deal with the effect of the secondary rotators, either by what is done to the primary rotators or by extension of operative interference to the secondary rotators themselves. And every operation should be planned with reference to the secondary as well as the primary actions of the muscle or muscles which it is designed to affect. [F. J. K.]

7.—Gould presents an article on the **nonoperative treatment of strabismus**. He discusses in the following order the nonoperative treatment of strabismus: (1) The prophylaxis of strabismus; (2) the treatment of ametropia; (3) the treatment of heterophoria; (4) the treatment of amblyopia; (5) the treatment of physiologically curable strabismus; (6) the treatment of alternating strabismus; (7) the treatment of anomalous cases; (8) the treatment of incurable cases. [F. J. K.]

AMERICAN MEDICINE.

November 1, 1902.

1. Ligating and Clamping the Ureter as Complications of Surgical Operations. JOHN A. SAMPSON.
2. Arthropathy of the Vertebral Column in Tabes. WILLIAM G. SPILLER.
3. Subcutaneous Tendon-Splicing; A Modification of Anderson's Open Method, Adapted Especially to the Tendo-Achillis. J. T. RUGH.
4. A Preliminary Note on Pompholix as It Occurs in New Orleans. ISADORE DYER.
5. The Causes, Prevention and Cure of Puerperal Eclampsia. ROBERT REYBURN.
6. Sarcoma of the Nares and Ethmoid Cells. JOSEPH S. GIBB.

1.—Sampson states that the **effects of clamping or ligating the ureter** may be classified as follows: (1) The immediate effect on the ureter itself. (2) The remote effects arising from injuries to the ureter, thus interfering with its function. A ligature about a ureter, if removed before the close of the operation, will probably not have injured the ureter. A clamp is more likely to give rise to postoperative signs of injury than a ligature. Occlusion of a ureter is of quite frequent occurrence during gynecological operations and is by no means always recognized at the time. Complete occlusion in the absence of infection leads to renal atrophy with more or less dilation of the ureter and pelvis of the kidney. These conditions take place usually without any symptoms or evidence of constitutional disturbance and probably without much shock. Ligation of the ureter is probably less likely to cause either a marked hydronephrosis or a pyonephrosis than a uretero-ureteral anastomosis. Ligation of the ureter may be considered a justifiable surgical procedure, when necessary in cases in which uretero-ureteral or ureterovesical anastomosis is impossible. Sampson discusses at length the ligation and clamping of the ureter as complications of surgical operations. [T. L. C.]

2.—Spiller reports a case of the rare condition of **arthropathy of the vertebral column in tabes**. [T. L. C.]

3.—Rugh describes his modification of Anderson's open method of lengthening tendons by open incision. Rugh terms his operation **subcutaneous tendon-splicing**. He describes his technique as well as the indications for the method and the advantages claimed for it. [T. L. C.]

5.—Reyburn states that the really curative method of treating **puerperal eclampsia** consists in so increasing the eliminative powers of the system that the morbid products may be excreted. **Elimination** must be kept at the highest point of efficiency. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

August 21, 1902.

1. On the Actinoscopic Method for the Exact Determination of the Cardiac Outline. E. GRUNMACH and A. WIEDEMANN.
2. Contribution Concerning the Distribution of Malaria in Northwest Germany. (Conclusion). P. MUEHLENS.
3. Casuistic Contributions Concerning Carpometacarpal Luxation. F. BANNES.
4. On the Production of the Breath Sounds. J. MAREK.
5. The Sternum, Thoracic Aorta and Spinal Column in Röntgen Pictures. M. LEVY-DORN.

1.—The authors describe an **apparatus which they have devised for use with the X-rays in accurately determining the limits of the cardiac dulness**. They insist upon the importance of this method, particularly in cases of emphysema, in which disease percussion becomes more inaccurate, while the use of Röntgen-rays becomes even easier. [D. L. E.]

2.—Mühlens gives a further discussion, in detail, of his results in a series of regions in Northwest Germany. He reaches the conclusion that in 1901—and even more markedly, in 1902—**malaria has appeared epidemically in certain places, after having been a great rarity for 20 or 30 years**. The cases have been of a favorable character and were limited to regions about marshes and those in which anopheles and their larvæ could be found. Most of the patients have not been under medical care, many of them take no quinine, and a large proportion are school children. The author believes that there is **great danger of widespread infection**, and that malaria will probably spread widely over Germany, unless careful regulations are established for the control of the disease. [D. L. E.]

3.—The patient was a man, aged 29, who was kicked on the hand by a horse, and who acquired thereby a dorsal luxation of the second and third metacarpal bones. In this case the diagnosis was readily possible by palpation, as the patient was seen very soon after the accident. The absolute diagnosis was readily made with the X-rays. It was interesting that **strong traction on both fingers at the same time produced no result, while moderate traction on the middle finger alone caused both bones to slide back quickly into place**. The ultimate result was only fairly satisfactory.

The man was able to use his hand for work only when 4 weeks had passed, and then only unsatisfactorily, the infiltration still remaining. [D. L. E.]

4.—Marek states that his experiments have made it evident that the lungs, whether expanded or collapsed, are not capable of modifying a pure tone. Other sounds arising in the respiratory tract are made deeper and of softer quality by the lungs. When, however, the bronchi become solidly occluded at any point, the lungs are no longer able to transmit the vibration, and become even worse as transmitters than the liver. Since these facts are true, it is evident that changes in sounds in the lungs are only a result of alterations in resonance occurring in the bronchial tubes. The vesicular breath-sound cannot be a transmitted laryngeal sound, and normally the passage of the air through the bronchi causes no sound, because there are no sudden changes in the caliber of the tube. Hence, the vesicular breath-sound can occur only in the respiratory part of the lung; that is, only at the point of termination of the bronchi in the infundibula. It is, therefore, practically a stertoric sound. The expiratory sound of the lungs is purely one of transmitted resonance and of transmitted laryngeal sound. It is not due to the passage of air from the smaller bronchi into the larger. [D. L. E.]

5.—Levy-Dorn presents some striking pictures. They are drawings taken from particularly satisfactory radiographs. He believes that drawings are often more satisfactory than the photographs, especially for persons who are not skilled in reading the meaning of these photographs. Making the original photograph smaller will often bring out the details much more markedly than in the original. [D. L. E.]

BERLINERKLINISCHE WOCHENSCHRIFT.

September 22, 1902. (39 Jahrgang, No. 38.)

1. The Transmission of Human Tuberculosis to Cattle. JOHANNES FIBIGER and C. O. JENSEN.
2. The Mode of Action of Cobra Poison. PRESTON KYES.
3. Multiple Hereditary Exostoses. JUNGSMANN.
4. Hypogastric Extraperitoneal Laparotomy for Cancer of the Vagina and Rectum. A. MACKENRODT.

1.—Fibiger and Jensen report 5 cases of the transmission of tubercle bacilli causing tuberculosis in man, to cattle. A woman of 42 died of tubercular enteritis, intestinal ulceration being recognized post mortem. A mesenteric gland containing tubercle bacilli was injected into a calf which, on being killed 6 months later, showed miliary tuberculosis of the lung with some pearly bodies on the pleura. Yet the bacilli were comparatively avirulent. In another adult and in 3 children who died of primary intestinal tuberculosis, similar results of inoculations were obtained, the calves always showing typical tubercular lesions. The virulence of the bacilli from children, when injected into calves, leads to the conclusion that the infection originally came from cattle, caused intestinal tuberculosis in man, and again in cattle experimentally. Is it not possible that tubercle bacilli, virulent for cattle, may become attenuated in their passage through the human body? [M. O.]

2.—Will be abstracted when concluded.

3.—Jungsmann reports 3 cases of multiple exostoses in a man, aged 36, and his children, a boy of 9 and a girl of 6. Such cases of hereditary multiple exostoses are rare. The exostoses appear slowly, increase in size gradually and cause but little disturbance. The tumors are often symmetrical. Full case-histories, a description of Röntgenograms and photographs follow. [M. O.]

4.—Mackenrodt describes the technique of his operation for the removal of cancer of the vagina or rectum, by hypogastric extraperitoneal laparotomy. This freely permits entrance into the pelvic connective tissue, prevents the occurrence of peritonitis and obviates any danger of abscess following, by allowing sufficient drainage. He considers this the most complete, the most simple and the most safe manner of performing total extirpation of rectal cancer in men or women. [M. O.]

ZEITSCHRIFT FUER HEILKUNDE.

June, 1902. (Volume 23, No. 6.)

1. The Surgical Treatment of Undescended Testicle. KARL PLOC.
2. Radiographic Anatomy of Syphilitic and Tubercular Bone Disease of the Extremities, with Differential Diagnosis. ROBERT KIENBOECK.
3. The Hot Air Cautery in the Treatment of Lupus, with Investigations on the Effect of Hot Air on the Healthy and Diseased Skin. LUDWIG SPITZER.

1.—Ploc reports 16 cases of undescended testicle, eleven of them complicated by inguinal hernia. Fibers of the cremaster muscle and fascia were found between the peritoneal sac containing the testicle in the inguinal canal and the aponeurosis of the external oblique muscle. In one half of the cases the testicle was smaller than normal, and was atrophic in 4 patients. The spermatic cord was long enough to reach the end of the scrotum in all cases. Improvement always followed the operation, the technique of which follows in full. [M. O.]

2.—Kienböck describes in detail the anatomy of syphilitic lesions of the extremities as observed radiographically in hereditary syphilis, in 13 cases, including the embryo, infant, child and adult, and in 12 cases of acquired syphilis. He also describes 6 cases of tubercular bone disease of the extremities. The article contains 45 original illustrations, showing the slight differences between syphilitic and tubercular osteitis. These differences are so little that when no other reasons exist for differentiating one from the other, differentiation will also be impossible by radiography. While some cases of syphilitic bone disease show irregular shrinking while tubercular bone disease will show thickening, in the majority of cases only the history and results of treatment will show which condition is present. [M. O.]

3.—Spitzer first describes the Lang hot air cautery, which is used, with local anesthesia, in the treatment of lupus. Details of the technique of this treatment are given. Among 32 patients, 45 applications were made. In 28 cases the face, especially about the nose, was affected. After describing his experiments, Spitzer concludes that the treatment is good whenever radical operation is impossible, since it cures rapidly, forms soft scars, is easily applied, even over widespread areas, and is followed by fewer recurrences than are other methods. Several case-histories follow. [M. O.]

NEUROLOGISCHES CENTRALBLATT.

May 1, 1902. (No. 9.)

1. Judge and Expert; A Brief Explanation. P. NAECKE.
2. Notes Upon the Question of the Changes in Character After Injuries to the Brain. M. FRIEDMANN.
3. Further Communication Upon Asthenic Paralysis, With Results of Autopsy. S. GOLDFLAM.

1.—Näcke insists that, in his article upon judge and expert, he merely meant that the expert should decide points coming within his province. He mentions instances in which the evidence appeared to be contrary to the expert's opinion, but the latter nevertheless was correct. [J. S.]

2.—Friedmann mentions an interesting result that occurred when he cauterized a small portion of the brain of a sparrow. Although the wound was local, the bird became furious in its behavior, disturbing the other birds and attempting to attack every one who approached the cage. It ate well, and its general health was not impaired. A rabbit upon whom the same operation was performed behaved in the same manner, although other animals submitted to the same operation were perfectly normal. In both the animals whose characters were changed there was a diffuse change in the entire cerebrum resembling a lymphoid infiltration, evidently a secondary alteration of the brain. These experiments are not without significance in connection with the alteration in the character after injury to the brain. [J. S.]

3.—Goldflam reports 2 additional cases of asthenic paralysis. The seventh, a synagogue singer, 61 years of age, a year previously noticed that he had difficulty in singing. Later he had difficulty in speaking and then a feeling of constriction in the throat, and an examination showed that the pharyngeal reflex was lost. The tongue and lips were

weak, the speech was more distinct when the patient lay down than when he stood up. He improved and then grew worse, but was finally able to resume his singing. Later he became extremely cachectic, and an area of dullness developed over the upper portion of the sternum. He finally died, and no autopsy was obtained. There was evidently a malignant tumor in the anterior mediastinum. The eighth case, a woman, 35 years of age, noticed vertigo upon getting up, then there was staggering gait, diplopia, ptosis, disturbance of swallowing and general weakness after exertion. The myasthenic reaction was present. She gradually improved and remained well for 5 years, although the ptosis was persistent. Then weakness recurred, there was regurgitation of fluid through the nose, and the patient had a typical attack of asthenic paralysis. The case is interesting on account of the long remission of the symptoms. The paper is not complete in this number. [J. S.]

May 16, 1902. (No. 10.)

1. Demonstration of the Physiology of Cortical Sight. E. HITZIG.
2. Acute Cerebellar Ataxia. W. von BECHTEREW.
3. Loss of the Knee Jerk in Dorsal Compression Myelitis With Degeneration of the Posterior Root. M. BARTELS.
4. Further Communications Upon Asthenic Paralysis, With the Results of an Autopsy. S. GOLDFLAM.
 - 1.—Hitzig describes the following phenomena. If in dogs from whom the occipital lobes have been removed according to Monk's method, a sufficient time is allowed to elapse, all the visual disturbances apparently disappear. No matter how the operation is performed, the visual fields show return first in the median region, then extend upward. Some of the interesting results were as follows. With 2 exceptions the second operation always caused renewed disturbance of vision in an eye that had been disturbed by the first operation, and often more severe than that of the second eye disturbed, and the severity of the disturbances in the eye first affected often increases. None of the results correspond to Monk's theory, and Hitzig therefore believes that it must be incorrect. [J. S.]
 - 2.—von Bechterew calls attention to some cases reported by himself and by Schnitzer in which there was a peculiar disturbance of motility apparently the result of chronic alcoholism, that had an acute course. It probably depends upon some involvement of the cerebellum. [J. S.]
 - 3.—Bartels reports the following case. A man, 30 years old, a worker in leather, had pain in the back due to Pott's disease. There was complete flaccid paralysis of the abdominal muscles and loss of the patellar tendon reflexes. There was total anesthesia in the legs, but deep puncture in the sole of the foot caused, after some time, a burning sensation. The patient grew worse and finally died, and at the autopsy there was found an almost complete transverse lesion of the cord, although some fibers were still preserved. From the second lumbar segment down there was degeneration of the posterior roots. The case is important in determining reflex action. [J. S.]
 - 4.—Goldflam continues his paper with a discussion of the 2 cases reported in the previous contribution, calling particular attention to the severity of some of the symptoms and their changing character. He makes some remarks upon the general character of the disease. The paper is still unfinished. [J. S.]

CENTRALBLATT FUER INNERE MEDICIN.

July 12, 1902.

The Occurrence of Green Vegetable Growths in the Stomach, that are Capable of Development. Their Diagnostic Importance. Preliminary Communication. A. KUEHN.

It may occasionally be noted that the stomach-contents are green when bile is apparently absent. The author has investigated the stomach-contents in these cases and has found numerous bright-green cells, about the size of leukocytes, containing nuclei-like bodies in their interior. There were also substances which looked like algæ. These were small dark-green cells, partly round and partly with projections. The large cells developed rapidly in the thermostat, producing a dark, olive-green mass at the bot-

tom of the vessel, which, microscopically, was found to consist of green cells largely joined together. The growth of these cells was often interfered with by the development of yeast cells, but this was controlled by adding a little HCl. These green growths were found chiefly in cases of hyperacidity. Kühn believes it probable that there are various forms of algæ active under these circumstances, and that they are introduced with drinking-water and food. It is a striking fact that these algæ develop in an excess of HCl, while ordinary algæ, taken from stagnant water, die in water containing HCl. It appears that hyperchlorhydria and stagnation favorably influence the growth of those found in the stomach. The author believes that they are not rare in stomach-contents. Their importance must be determined by further investigations. [D. L. E.]

July 19, 1902.

Cystic Liver and Cystic Kidneys. B. BOYE.

The cause of this condition is believed, by the author, to be the development of actual cysto-adenomata. He thinks that this is a much more satisfactory explanation than is the view that the condition is congenital. He reports a very remarkable case in a woman of 56, in whom enlargement of the liver was noted as long as 15 years before death, and had been taken for carcinoma, that diagnosis being rendered improbable only by the fact that the woman lived in fairly good health and exhibited no other signs of carcinoma. No discomfort was produced by the growths until 3 years before death. She had no icterus or ascites. She had occasional hematuria, and toward the latter part of her life she had some cachexia. Even just before her death the condition was considered to be carcinoma, because of the irregular, hard masses that could be felt over a large part of the abdomen. The woman died of apoplexy, and the condition proved to be cystic degeneration of the liver and kidneys. Microscopically, the cysts in the liver were found to have developed from the bile capillaries; in the kidneys, from the urinary canaliculi. [D. L. E.]

July 26, 1902.

The Measurements of the Shoulder in Normal Persons. Diagnostic Importance of the same in Paralysis or Neurosis of the Shoulder.

A. van der MINNE and H. ZEEHUISEN.

The authors add to their previous work on the measurements of the shoulder, particularly investigating the action of the acromial joint in the movements of the shoulder and arm in normal and pathological circumstances. The movements of the scapula under normal circumstances are due to the resistance set up by the arm movements. The movements of the sternal joint produce a to-and-fro dislocating movement of the acromial joint; in other words, a passive movement in the latter joint. The movements of this joint have little importance in the elevation of the arm and in the rotation of the scapula. In pathological circumstances, the acromial joint has no important part in compensating disturbance of the arm movements. With paralysis of the serratus, compensation is due to increase in the rotation of the clavicle in the sternal joint, which increases the movement in the acromial joint. The authors then discuss their studies of the direction of the plane of the scapula in the various positions of the arm, and state that they have devised an instrument for determining the plane of the scapula without carrying out any complicated calculations. [D. L. E.]

NORDISKT MEDICINSKT ARKIV.

1902. (Afd. 2, No. 2.)

7. A Gunshot Wound Through the Central Optic Tracts. VIGGO CHRISTIANSEN.
 8. The Occurrence of Tuberculosis in the Country. KRISTEN ISAGER.
 9. The Therapeutic Use of the Cacodyl Salts, Especially in Pulmonary Tuberculosis. AAGE KOCK.
 10. Periodic Myotonia. N. KULNEFF.
 11. A Case of Primary Cancer of the Intrahepatic Bile-Ducts. VICTOR SCHEEL.
- 7.—Christiansen reports the case of a woman of 30, who shot herself in the skull and recovered only to repeat

the proceeding. She was first brought to the hospital conscious, without paralysis, convulsions or sensory disturbances, but was absolutely blind. Her pupils were greatly dilated and did not respond to light. The reaction to light, however, became normal in a few days. Ophthalmoscopic examination showed normal eye-grounds. As the wound healed, vision gradually returned, the only result remaining being a restricted visual field. As she had headache, she was trephined 6 weeks after injury, and the bullet was removed. Six months after her first attempt she died, 24 hours after another gunshot wound of the brain. The autopsy showed the paths of both bullets. The first shot destroyed the fibers of Gratiolet on both sides, and affected the cortical visual centers in the calcarine fissure absolutely symmetrically. The histological findings and full explanations of the details of this interesting case follow. [M. O.]

8.—Isager concludes his extensive paper on **tuberculosis in the country**, reporting 62 case-histories, with maps, etc. In 34 out of over 100 tubercular families one child became infected originally with outspoken tuberculosis, without any tubercular ancestry. In 13 there were intimate relations with families having phthisical members. In 7 the disease was eventually spread by children brought to the house by the children of the family affected. In most cases the disease comes from a neighbor, as in scabies, or children who have contracted the disease outside bring it home. Nor is there any doubt that patients with phthisis may spread the contagion before they seek aid for themselves. For a group of cases generally surrounds one phthisical patient. Some cases run a rapid, others a slow course. Many details are given. [M. O.]

9.—Kock reports 29 case-histories, showing the results of the **cacodyl salts in phthisis**. He found that sodium cacodylate had the same effect on the organism as arsenic. It may cause nausea, vomiting, cardialgia, diarrhea, headache, cyanosis, epistaxis, hemoptysis, psychical excitement, fever, local sweating and albuminuria, whether given by the mouth or hypodermically. It also causes rapid increase in the number of red bloodcorpuscles, with some increase in the hemoglobin. It reduces the amount of expectoration, cough and night-sweats, and sometimes the fever, in phthisis. It appears to have a good effect on the local process in the lung, causing a diminution in the physical signs. Yet it makes some patients decidedly worse. Kock advises the cacodylates early in phthisis. [M. O.]

10.—Will be abstracted when concluded.

11.—Scheel reports a case of **primary cancer of the bile-ducts of the liver**, in a man of 81, ill only 5 weeks, with vomiting, jaundice, weakness, loss of flesh, enlarged liver, unconsciousness and death. Examination showed cirrhosis of the liver with adenomatous and carcinomatous tumors. The liver weighed 5 kilograms. The tumors were found on the intrahepatic bile ducts. [M. O.]

MEDICINSKOIE OBOZRENIE.

1902. (Vol. LVII., No. 8.)

1. Cholesteatoma of the Middle Ear. M. M. RESSER.
2. A Case of a Malignant New Growth in the Region of the Mastoid Process and the Auditory Canal.
V. I. SOKOLOFF.
3. On the Diagnosis of Highmoritis by the Aid of S. von Stein's Needle. M. V. DEMPSEL.
4. The Value of the Essentouks as a Health Resort in the Treatment of Internal Diseases.
M. I. RADKEVITCH.
5. Two Cases of Elephantiasis due to Syphilis.
M. POKROVSKI.

1.—Resser reports 2 cases of **cholesteatoma**, one *verum* and the other *falsum*, and discusses the pathology and treatment of the affection. He urges an early operation in view of the fact that the disease may progress without producing alarming symptoms until it may be too late to accomplish any good by an operation. [A. R.]

2.—Sokoloff reports a case of **malignant growth of the mastoid process**, which he diagnosed, by exclusion, to be

one of **osteosarcoma**. The sudden departure of the patient precluded an operation to which she had agreed.

[A. R.]

3.—Dempel lauds von Stein's needle as a most efficient aid in the **diagnosis of suppuration of the antrum of Highmore**. He considers this instrument superior to all others and cites several illustrative cases. [A. R.]

4.—Radkevitch discusses the superior merits of the springs in the Essentouk region (Caucasia) in the treatment of gastro-intestinal and other internal diseases. The nature of the climate, composition of the waters and indications are fully discussed. [A. R.]

5.—Pokrovski describes specimens from 2 cases of **elephantiasis** as the result of syphilis. He also cites cases of syphilitic elephantiasis described by Minakoff, in 1893, and Orloff, in 1901. The cases reported by European authors are also mentioned. [A. R.]

AMERICAN JOURNAL OF ANATOMY.

May 26, 1902. (Vol. 1, No. 3.)

1. The Development of the Vena Cava Inferior.
FREDERIC T. LEWIS.
2. Notes on the Wolffian Body of Higher Mammals.
JOHN BRUCE MacCALLUM.
3. On the Vitelline Vein of the Cat.
FRANKLIN DEXTER.
4. The Ducts of the Human Submaxillary Gland.
JOSEPH MARSHALL FLINT.
5. On the Skeleton of *Nyctodactylus*, with Restoration.
S. W. WILLISTON.
6. Origin and Migration of the Germ Cells in *Acanthias*.
FREDERICK ADAMS WOODS.
7. The Spermatozoa of *Allolobophora Fetida*.
KATHERINE FOOT and
ELLA CHURCH STROBELL.
8. On the Development of the Connective Tissues from the Connective Tissue Syncytium.
FRANKLIN P. MALL.
9. On the Origin of the Lymphatic System From the Veins and the Development of the Lymph Hearts and Thoracic Duct in the Pig. FLORENCE R. SABIN.

1.—Lewis has studied the **development of the inferior vena cava** in the rabbit. He finds that the persistence of the right umbilical and the right omphalomesenteric veins causes the stomach to be pushed to the left side and the liver to become predominant on the right. This displacement of the stomach causes the left mesenteric fold to disappear but results in the enlargement of the right mesenteric fold. This fuses with the liver; becomes invaded by the hepatic tubules and makes a part of the right dorsal hepatic lobe. Thus the hepatic vessels lie near the posterior cardinal vein. The inferior vena cava is a compound vessel composed of parts of the heart, the common hepatic vein, the hepatic sinusoids, the upper part of the right subcardinal and the lower part of the right cardinal veins. [J. M. S.]

2.—MacCallum has studied the **development of the Wolffian body** in pig embryos and in human embryos. He finds that the Wolffian duct is developed from the cells lining the celom. The tubules of the Wolffian body are outgrowths from the Wolffian duct and there are probably as many glomeruli as tubules. [J. M. S.]

3.—From a study of the **vitelline vein of the cat** Dexter shows that as the result of an extensive growth of the duodenum to the right the vitelline vein changes its position from the wall of the duodenum to the duodenal mesentery. It is at no time found in the mesentery of the jejunum and ileum. It unites with the superior mesenteric vein to aid in the formation of the portal system. [J. M. S.]

4.—Flint contributes an exhaustive paper on the **ducts of the human submaxillary gland**. [J. M. S.]

8.—Mall presents a study of the **development of the connective tissues**. He finds that the network of fibrils that forms Wharton's tissue is composed of a mass of anastomosing cells, a **syncytium**, from which the connective tissues are developed. Often the syncytium is very sharply defined and differentiated, with nuclei and a little protoplasm, which is less differentiated, lying upon it. When differenti-

ated to so great an extent it is very easy to designate the main portion of the syncytium as intercellular in position as well as in origin; and since the connective tissue fibrils arise directly from it, they are, of course intercellular in origin. He has studied the syncytium in the tadpole and in pig embryos and found them practically identical. Cartilage develops by enlargement of the nuclei of the connective tissue syncytium and the extension of the endoplasm to form the cartilage cells and the transformation of the exoplasm into the ground substance of the cartilage. The first appearance of membranous bone is as a hyaline deposit in the exoplasm of the syncytium. The nuclei and the endoplasm form the bone cells while the bone substance is either transformed exoplasm or is deposited in it. The change from syncytium into bone presents as intermediate steps the formation of some cartilage and of some white fibrous tissue. In the formation of white fibrous tissue, the nuclei and the endoplasm form the bipolar cells and the fibers are formed from the exoplasm through an intermediate stage called the prefibrinous stage. The reticulum of the lymphnodes develops as the white fibrous tissue does but stops in the prefibrous stage. The development of elastic tissue from the syncytium is then described.

[J. M. S.]

9.—Sabin has injected the false amnion of chick's embryos with India ink. She finds by this process that the injected fluid passes into spaces between the upper and the lower layers of the area vasculosa, which are crossed by delicate fibrils that are in reality the processes of scattered mesenchyme cells. The fluid did not flow in preformed channels, lined by endothelium. Further studies by injections under the skin showed that the lymphatic vessels develop from centrally placed structures, one of which is situated in the neck and the other in the inguinal region. These vessels gradually invade the skin, their tips are growing points and often have sprouts running out from them. The anterior lymphatic duct empties into the subclavian vein after accompanying the anterior cardinal vein. Just external to the anterior cardinal vein there is a large sac, corresponding to the anterior lymphheart of the frog, into which all the subcutaneous lymphatics of the anterior half of the body empty. This anterior lymphheart empties into the junction of the anterior cardinal and subclavian veins by a small opening which is guarded by a valve. These lymphstructures arise, the author claims to have proved, as buds from pre-existing veins and grow parallel with these veins. The posterior lymphheart develops as an outgrowth from the posterior cardinal vein at the point at which the sciatic and femoral veins join it. From this lymphheart lymphatics grow out toward the skin. The thoracic duct grows along the dorsal line following the aorta, and, from this, vessels grow into the various organs. The author has been able to confirm the facts obtained from the study of pig embryos in some degree in human embryos. The lymphnodes develop by increase of connective tissue around plexuses of ducts, after the capillary ducts are well formed. [J. M. S.]

ARCHIVES OF PEDIATRICS.

July, 1902. (19th. year, No. 7.)

1. Development the Keynote of Pediatrics.
W. S. CHRISTOPHER.
 2. Intussusception. FRANCIS HUBER and
J. F. ERDMANN.
 3. Local Variations in Mortality from Summer Diarrhea.
HENRY DWIGHT CHAPIN.
 4. Meningoceles and Allied Malformations.
JOHN RUHRAEH.
- 2.—Huber and Erdmann report a case of intussusception. The patient, a child, aged 8½ months, was operated upon and recovered. [J. M. S.]
- 3.—See Philadelphia Medical Journal, Vol. 10, page 406.
- 4.—Ruhrah contributes a paper on meningoceles. He reports 3 cases, all of which ended fatally. [J. M. S.]

Society Reports.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

(Concluded.)

Dr. T. D. Crothers, Hartford, Conn., read a paper on diseases preceding and following the use of alcohol and opium. Clinical study has pointed out many diseases which precede inebriety, of which syphilis, trauma, dementia and toxic states were most common. Atrophic and hypertrophic sclerosis always followed. An early recognition of the organic changes which preceded and emerged into inebriety would enable one to prevent the disease. Dr. C. C. Bass, Columbia, Miss., read a paper on the treatment of typhoid fever with castor oil, reporting 32 cases. Dr. H. G. Graham, Chicago, Ill., followed with a paper on a culture of infusoria.

Dr. W. T. English, Pittsburg, Pa., discussed some of the signs and symptoms of croupous pneumonia. Dr. W. F. Barclay, Pittsburg, Pa., also contributed a paper on pneumonia, considering the close relationship between pneumonia and influenza, the similarity in pathology, initial stages, clinical history, mortality and treatment. Heart failure and exhaustion were the cause of death in 98% of cases. Rest in bed in well-ventilated rooms was of paramount importance. He gives calomel and tincture of nuxvomica in large and frequent doses. Dr. J. L. Jelks, Memphis, Tenn., discussed the treatment of chronic dysentery. The sigmoidoscope and long rubber-tubes had a field in the treatment of this affection. Patients should be placed in sanitary surroundings, free from unnecessary heat and moisture. The diet should be carefully selected, the portal engorgement relieved and the intestinal tract thoroughly cleansed. Hemorrhage from the bowel, when profuse, could be controlled by styptic enemata given through the double tube. In using the sigmoidoscope, the author recommended the knee-chest position. Higher treatment may be administered through one or two tubes of soft rubber, which can be passed further into the colon and the antiseptic solution administered by enema through these. In chronic tubercular conditions he found most benefit from iodoform and ichthyol in suppositories, passed through the sigmoidoscope into the sigmoid.

Surgical Section.

Dr. G. W. Crile, Cleveland, Ohio, delivered the address in surgery, on operation for cancer of the mouth and neck. There has been a continuous decrease in the operative mortality, and an increase in the percentage of cures, with the single exception of brachyogenic cancer. The supreme importance of early diagnosis and operation is becoming widely recognized. Physiological and clinical evidence shows that severing the thoracic duct causes but little disturbance, owing to its free anastomosis. Resection of the internal jugular vein and unilateral resection of the vagus produce but little effect. The complete removal of the lymphatic system of one side does not produce pseudo-elephantiasis of the face and head. Permanent closure of the external carotid has an operative mortality of but 2%, due to thrombosis and embolism. Permanent closure of the common carotid or internal carotid is attended by an operative mortality of about 3%, but in the cancer period of life from 20 to 30% of cerebral complications follow, about 50% of which prove fatal. Temporary closure of the carotid, by means of special clamp, as shown in 43 cases, in which neither death nor cerebral complications occurred, is both efficient and safe. These data lead to 2 objective points in unilateral operation for cancer of the mouth or neck; complete removal of the disease, and preservation of the central bloodsupply. Loss of blood is the greatest operative danger. Dr. E. M. Sutton, Peoria, Ill., read a paper on cancer of the rectum, reporting several cases. Dr. E. Ries, Chicago, Ill., pointed out the difficulties in treat-

ing **extensive rectal strictures**. He referred to septic conditions, anatomical changes and the danger of recurrence. He discussed anastomosis after resection; end-to-end anastomosis; anastomosis without resection; side-to-side anastomosis after exclusion, and end-to-side anastomosis. Dr. B. Lewis, St. Louis, Mo., said the purposes of **ureteral catheterism** in connection with the cystoscope were for diagnosis and treatment. Cases reported showed that ureteral catheterism, in both male and female, had been reduced to a practical procedure. With the cystoscope, the operator is enabled to look directly on the field. Dr. J. R. Eastman, Indianapolis, Ind., thought a removable roof, to facilitate withdrawal of the cystoscope, leaving the catheter in the ureter, would be an improvement. Dr. Martin, Missouri, found the introduction of the catheter easy, and there was no trouble in withdrawing the cystoscope while the catheter was in the ureter. Dr. B. F. Gillmor, Creston, Iowa, discussed the **mechanical problem of intubation**, exhibiting drawings and X-ray plates.

Dr. J. R. Eastman reported a case of **laminectomy for fracture-dislocation of the fourth and fifth cervical vertebrae**, stating that laminectomy was followed by improvement of motor and sensory conditions, but was unsuccessful in saving the life of the patient, death having occurred on the nineteenth day. Laminectomy *per se* was not dangerous. It represented the surest method of diagnosis and the most rational and efficient means of relief. Dr. Stewart, Chicago, Ill., also advocated early operation. Dr. Black, Jacksonville, Ill., advised early operation or exploratory incision. Dr. T. H. Manley, New York, read a paper on **extrinsic traumatism of the spine; their diagnosis, pathology and treatment**, which will soon appear in the *Philadelphia Medical Journal*. Dr. C. E. Black, Jacksonville, Ill., in a paper on **spinal concussion**, called attention to the way in which the term concussion of the spine was used. There is a misunderstanding among writers as to the scope of the term concussion. Thorburn, Manchester, Eng., was quoted as giving the only rational classification. He concluded that minute or capillary hemorrhage was the basis of most cases, and divided the injuries produced by concussion of the spine into primary effects, sprains, contusion of the spinal cord, and minute hemorrhage into or around the cord, and secondary effects, shock or collapse, acute hysteria, neurasthenia and chronic hysteria. Dr. F. P. Norbury, Jacksonville, Ill., spoke of the **spinal cord injury**, so-called spinal concussion of the cord. He stated that a scientific interpretation of concussion of the cord had not yet been attained. The lesion was doubtless a disturbance of the circulation due to injury to the bloodvessels and lymphatics. Intramedullary hemorrhage was probably the immediate lesion. Structural changes were probable, and the degenerative and vascular changes following injury to the cord were indicated in the symptomatology of the disease. The symptoms in pronounced cases of hemorrhage were compared to the more obscure conditions called concussion, showing that hemorrhage was common in traumatism of the cord and that similar sensory and vasomotor changes existed. It is, however, impossible to eliminate the psychical element in cord injuries.

Dr. E. Walker, Evansville, Ind., read a paper on the **X-ray in the treatment of malignant growths**. Its exact status must be determined by clinical observation. He reported a case of alveolar melanotic sarcoma of the face, which was removed, returned in 2 weeks and extended to the neck. A second operation was performed without success. But there was immediate improvement with the X-ray, the wound healing in 2 weeks, all induration disappearing in 3 months. Excision should be done, if possible, before the X-ray treatment was begun. Dr. C. M. Mutz, Douglass, Kan., discussed the **physiological action and therapeutic use of the X-ray**. Dr. J. Rudis-Jicinsky, Cedar Rapids, Iowa, read a paper on the relation of the so-called

X-ray burn to the treatment of malignant growths. Irritation followed the X-ray, and a regeneration of tissues was the result. Three factors determined the special effect on the cell, the condition of the body, the amount and intensity of the rays and the character of the rays. He discussed the technique and selection of vacuum tubes according to their burning time; soft tubes or soft medium tubes for superficial growths; and high vacuum tubes for internal growths. Dr. E. J. Brown, Decatur, Ill., discussed the **X-ray treatment of cancer** with a report of cases cured. Dr. C. E. Barnett, Fort Wayne, Ind., read a paper on **renal calculi or hepatic calculi; differential diagnosis**, contending that it was impossible to make a differential diagnosis with the X-ray, and suggesting cutting down and exposing the kidney. Dr. H. E. Pearse, Kansas City, Mo., reported a case of **cyst of the mesentery**, with recovery after operation.

Dr. F. G. Connell, Leadville, Col., in a paper on **through-and-through intestinal suture**, said that it should be employed in preference to one that attempted to perforate but a portion of the intestinal wall, because of less danger of yielding, necrosis or leakage, smaller diaphragm, diminished adhesions, absence of a foreign body, and a decrease in time. The most appropriate place for the knot of perforating stitches was in the lumen of the intestine. The square or double stitch was superior to the circular stitch with its top knot. It was of practical import to have the last stitch, as well as the others, through all of the coats and knotted in the lumen. He described his technique and reported 54 cases. Dr. H. O. Walker, Detroit, Mich., read a paper on **gastrojejunostomy with the McGraw elastic ligature for the relief of gastroptosis**. He reported 3 cases operated on successfully, and closed by saying that, of all methods that had been suggested for the performance of lateral intestinal anastomosis, none possessed the advantages of the McGraw elastic ligature. Its simplicity was greater than any other method yet presented; it can be done with ease and rapidity; shows less sepsis than any other method; there is no danger of a foreign body; and a large opening could be made without cicatricial contraction. Dr. J. Y. Brown, St. Louis, Mo., read a paper on **section following vaginal puncture**. He called attention to vaginal section in contradistinction to vaginal puncture. He alluded to the postoperative complications following vaginal section, as shown by a series of cases in which abdominal section was subsequently done.

Dr. E. Lanphear, St. Louis, Mo., read a paper on **cancer of the uterus** in the Mississippi Valley. The census statistics of 1900 show larger proportions of carcinoma uteri operated upon in the West than in the East with either cure or a return of the disease in other organs; hence death was not included in the deaths from cancer of the uterus. Dr. M. Kahn, Leadville, Col., read a **plea for the abandonment of the abdominal belt after celiotomy**. The application of an abdominal belt, which, if tight enough to exert any influence, must relieve the muscles of their usual labor, results in atrophy from disuse, whereas it would be desirable to have the hypertrophy from overuse. Dr. L. G. Bowers, Richmond, Ind., called special attention to the importance of the **early diagnosis of fibroids**, thus leading to conservative methods of treatment.

Dr. D. C. Payne, Jeffersonville, Ind., discussed the relative frequency of **fractures of the patella**; the contractions of the quadriceps as an efficient agent in the etiology; the displacement of the fragments and the associated injuries to the soft parts; the diagnosis; and the advantages of treatment of open arthrotomy as compared with non-operative procedures. Dr. T. W. Brophy, Chicago, Ill., gave a lantern demonstration of his method of operating on cases of **cleft palate**. Dr. C. E. Ruth, Keokuk, Iowa, discussed the subject of **antistreptococcic serum in septic conditions**. A resolution was adopted making the Missis-

Mississippi Valley Medical Association a district branch of the American Medical Association. The following officers were elected for the ensuing year: President, Dr. Edwin Walker, Evansville, Ind.; vice-presidents, Dr. Hugh T. Patrick, Chicago, Ill., and Dr. Wm. B. Burns, Memphis, Tenn.; secretary, Dr. Henry E. Tuley, Louisville, Ky., and treasurer, Dr. Thomas H. Stucky, Louisville, Ky. Memphis, Tenn., was selected for the next meeting.

NEW YORK OBSTETRICAL SOCIETY.

Meeting held October 13, the president, Dr. Malcolm McLean, in the chair.

Dr. H. J. Boldt presented a specimen of a large myofibroma removed by supravaginal hysterectomy from a cachectic patient. He presented the specimen to bring up the question of the desirability of the use of angiotribes in pelvic surgery. Dr. Boldt's experience had convinced him that there was no saving of time; that while Tuffier's instrument was best, it was too clumsy; that, if an instrument could be made less clumsy, to exert the same pressure, with long jaws, easily applied, it might be more desirable than ligatures, by saving time, by not requiring foreign material and by closing the peritoneal folds of the broad ligament. Dr. J. R. Goffe stated that he had used Tuffier's angiotribes for 4 years in abdominal and vaginal work. Its clumsiness had been overcome by a modification by Dr. Child. He considered angiotribes especially valuable in performing complicated vaginal hysterectomy. Dr. Child described the essential features of his instrument. Dr. J. E. Janvrin stated that he had also found Tuffier's angiotribe of great advantage.

Dr. H. C. Taylor presented a specimen of hydatidiform degeneration of the chorion, from a young woman who had had 3 living children and 6 miscarriages in 9 years, with no history of syphilis. After curettage and intra-uterine irrigation the patient made a good recovery. Dr. J. C. Edgar thought such cases important, because malignant growths had occasionally developed. Dr. H. N. Vineberg mentioned 3 cases he had had under observation. Dr. W. S. Stone reported a case in which an ovarian abscess developed, presumably from an infected laceration of the cervix. Dr. R. A. Murray stated he had observed 6 cases during several years, and malignant changes had not occurred.

Dr. Vineberg presented an instrument he had devised, a vaginal counterpressure director, intended to facilitate the opening of Douglas's cul de sac. Dr. Janvrin accomplished the same object by a large cork attached to a staff. Dr. Goffe preferred making a wide incision per vaginam. Dr. G. T. Harrison said that he would only operate through the abdomen.

Dr. Ralph Waldo, in a paper entitled a few disputed points in the treatment of pyosalpinx, said that he would first decide upon the exact pathological condition, and whether operation was indicated. If there is puerperal endometritis and salpingitis, with beginning infection of the peritoneum in the pouch of Douglas, he incises through the vagina. He does not operate in acute pyosalpinx from other causes, unless there is virulent, rapidly extending peritonitis. After subsidence of the acute process he removes diseased structures, leaving, at times, one or both ovaries and the uterus. If the pyosalpinx is removed without rupture and there are no bleeding points, he closes the abdominal wound. Otherwise drainage is left in place. Dr. Boldt rarely drained, except when there were raw and oozing surfaces, and then, only through the vaginal vault. The pus in tubes due to gonorrhea he thought was generally sterile at the time of operation. Dr. E. H. Grandin always drained through the vagina, but would not drain except when there were raw and oozing surfaces. Dr. A. F. Currier thought it was often difficult to decide about drainage if there was oozing. Dr. Vineberg regarded the advisability of delaying operative procedures until the pus became sterile as the most impor-

tant point. He opens acute cases from below, allowing the pus to escape, and then completes the operation, if necessary, from above. Dr. C. A. van Ramdohr decides as to the time of operation according to whether the case is gonorrheal or puerperal. He operates immediately in the latter case. Dr. W. G. Wylie operates as soon as the diagnosis of pus is made. He considered puerperal cases more dangerous than others. Dr. H. L. Collyer believes that the pus in pyosalpinx varies in virulence, but that most cases require drainage. Dr. A. P. Dudley supposed that the only treatment for pyosalpinx was hysterectomy; that fatal results rarely followed gonorrheal cases. He believes in vaginal drainage. Dr. Harrison considers that the word drainage is often used in a wrong sense. He would only drain to prevent hemorrhage or intestinal adhesions, and would use the Mikulicz drain through the abdominal wound. Dr. G. W. Jarman drains all septic or possible septic cases per vaginam. Dr. Goffe would drain all cases of the kind described per vaginam. Dr. Waldo, in closing, said that the preservation of normal structures was of more interest than the question of drainage. He had rarely found pus to be sterile, and he thought pyosalpinx was rarely the result of gonorrhea.

MANHATTAN DERMATOLOGICAL SOCIETY.

Meeting of October 3, Dr. W. S. Gottheil in the chair.

Dr. L. Weiss presented 3 cases, a woman showing yellowish pigmentation of face with liver disease, **chromosis symptomata**; a man with **pityriasis rosæ corporis**, modified by treatment, but in which no mycelia were found; and a man with chronic **lichen planus** of 4 years standing, affecting the occiput and neck, doing well under Unna's ointment.

Dr. W. S. Gottheil showed a case of **chronic urticaria**, in which treatment was of little avail. He also showed a case with **congenital frambesial syphilis**, in a boy of 5, with deeply fissured, excoriated and swollen lips, squamous patches over eyebrows, buttocks and palms, and a large moist papule in the anal region. Dr. L. Weiss suggested that this might be **lichen hypertrophica labialis**. Dr. Oberndorfer thought it might be acquired syphilis.

Dr. J. Sobel presented a case of **sclerema neonatorum** showing marked improvement upon massage. A case of deep ulceration in an infant following **intertrigo** was also presented by Dr. Sobel. A man shown by Dr. Sobel presented an enlarged left testicle and epididymis with no history of trauma, gonorrhea, syphilis or tuberculosis. His diagnosis was **prostatitis and vesiculitis**. Dr. Abrahams believed that the prostatitis was the result of gonorrhea, the present condition being a late complication of gonorrhea. Drs. Cocks, Oberndorfer and Gottheil thought it specific.

Dr. R. Abrahams showed a patient with enlarged submaxillary, sternocleidomastoid and clavicular glands, though syphilis was denied by the patient. Mixed treatment resulted in diminution of the glands. He considered it a **specific adenitis**. Drs. Wainwright, Weiss and Gottheil regard it as tuberculosis. Dr. Sobel thinks potassium iodide so long administered would surely bring out latent tuberculosis; leukemia suggested itself to him. A second case, shown by Dr. Abrahams, presented closely studded papillary elevations on the lips and cheeks, present 15 years. The diagnosis was plugged mucous ducts producing minute mucous cysts. A third case was marked **scleroderma diffusa**, following trauma of the hand, the skin of the arm becoming indurated. The process extended to the entire upper extremity, buttocks and abdomen, and locomotion was becoming difficult. The patient was placed on thyroid treatment with massage.

Dr. Abrahams again showed his case of **atrophia cutis**, and Dr. Geyser showed 2 cases, a small **epithelial growth** at the angle of the eye and nose successfully treated by the X-ray, and a case of **sycosis barbæ** treated with the static spray.

Special Article.

A MEMOIR OF J. M. DaCOSTA, M. D., LL. D.

By J. C. WILSON, M. D.,
of Philadelphia.

The influence of character is far-reaching. It makes its impress not only upon the present but also upon the future. Very often it increases as time goes on. It is not so much what a man does as what he is, that raises him high among his associates and enables him to mould their opinions and guide their conduct. Fortunately those gifts which make for character commonly make also for achievement. Such was the case in that Fellow of the College concerning whom this brief eulogy is written.

Oliver Wendell Holmes described medicine in a happy phrase as "The Silent Profession." Certainly a life spent in the companionship of books, in close observation in the laboratory and at the bedside, in incessant toil for the prevention of illness and the relief of suffering, affords neither time nor opportunity for declamation. Even the demonstrations and lectures of the teacher of medicine find expression rather in the tones of friendly conversation than in those of rhetorical display. Nor is medicine dramatic. There is neither marching nor countermarching. Its victories are without pageant; its triumphs without pomp. They are not, however, the less real. It has its comedies and its daily tragedies, but they are staged without rehearsal and presented without premeditation. There is little matter in the life of the physician for story-telling. It is commonly a life of quiet toil, self-contained, given to personal services, reticent, especially among the largest minded, and above all lonely. This we see around us and learn from the biographies, mostly scanty, and from the autobiographies, always written in old age. The career of Edward Jenner, who by a single piece of work, long and well thought out, rescued a world and made his name immortal, is conspicuous in the long line from the myth-enshrouded fathers of the Healing Art in the Island of Cos to the present time in material for the biographer and panegyrist. In truth, in the medical profession usefulness is the measure of greatness.

We cherish the memory of the founders and early fellows of the College. Redman, Morgan, Shippen and Benjamin Rush are not mere names to us. They are living personalities. Their influence is felt in the daily life of this great institution. What if they be forgotten by a profession careless of its traditions and a people ignorant of its history? Here, within these walls, they are ever present, living in the work they have done and in the succession which they established. So with the fellows of later periods of our history, many of whom seem to us only a little while ago to have passed away. Is their memory not sacred to us? Do we not feel their influence? Thinking of them, we realize that

it is good to have had them here. We need have no fear concerning the memory of our own best. The future will take care of them. To those who come after us their lives will be an example; their memory an inspiration. But we who have been with them hand to hand, and talked with them face to face, may make them more real to our successors by a few words of affectionate remembrance.

It is a wise and pleasant custom of the College.

Jacob Mendez DaCosta came of an ancient Portuguese family long resident in London. He was born upon the Island of St. Thomas in the West Indies upon the 7th. of February, 1833. He was educated in Europe, chiefly in Dresden. During this period he acquired a familiarity with Greek and Latin, a fine knowledge of classical literature and a proficiency in modern languages, which served him in good stead throughout his life. It is related that with an excellent knowledge of English and familiarity with the literature, his colloquial command of our language was at his coming to America inferior to that of several Continental tongues, especially German and French—a deficiency which in the course of a short period he so completely overcame that there remained no trace of alien accent in his speech, singularly accurate, graceful and resourceful as we all knew it. In 1849 he came to Philadelphia, where his mother was then living, and shortly afterward entered upon the study of medicine in the Jefferson College and as a student in the office of Professor Mütter. The Faculty at that time was composed of Robley Dunglison, Huston, Joseph Pancoast, John K. Mitchell, Mütter, Charles D. Meigs and Franklin Bache. His diligence in his work attracted the attention of his instructors, and it is at once an indication of their confidence in him and of his early interest in pathological anatomy, that he was appointed during the second year of his course, together with his friend and fellow-student, John H. Brinton, to demonstrate to such members of his class as desired to avail themselves of the opportunity, the tumors and other specimens removed by Professor Mütter at his clinics. Those demonstrations were conducted twice a week in the evenings and were well attended. He was graduated in medicine in March, 1852, having just entered upon his twentieth year. The title of his thesis was "Cancer and Epithelial Growths of the Face." A few months later he went to Europe and devoted a year to medical studies, chiefly clinical. The greater part of this period was passed in Paris, a capital which at that time still maintained its prestige in clinical medicine and offered particular attractions to the American student, for as such young DaCosta now regarded himself. He was indefatigable in availing himself of the opportunities at hand. His time was consumed in study and attendance upon the clinics. He went regularly to the great hospitals, the Hôtel-Dieu and La Charité, and often to the Salpêtrière, the Lourcine and du Midi. He effected arrangements by which he was enabled to attend the meetings of the Académie de Médecine, a privilege not generally extended to youthful strangers. With all this work he found time to take lessons in water-color painting, in

*Read at the College of Physicians of Philadelphia, November 5, 1902.

which he acquired a degree of proficiency which proved of great use in the preparation of the sketches and diagrams soon to be required in his own teaching. A review of this period of DaCosta's life makes it evident that he was already laying broad plans for the future. Not yet twenty-one years of age, he was prepared to take his destiny in his hands. He would be a teacher; at all events he would fit himself to be one. The talent was in-born. It had shown itself in the eagerness with which as Mütter's pupil he had undertaken the demonstration of the clinical specimens to his fellow-students. Crude these early attempts doubtless were; how could they have been other than crude? Yet they were the first signs of that rare association of gifts which made him in later years the greatest clinical teacher of his time. The one fact that stands out clearly is that he was not only eager to know the things that were taught, but that he was even more eager to know how they were taught. His chief attention was given to pathology and clinical medicine, but he interested himself in every branch of medicine as it was then taught. Wherever there was a great master to be heard there he went as time and opportunity allowed. Opportunity was far more abundant than time for the young student. The medical life of Paris was approaching the culmination of nearly a century of greatness. There had been great teachers before, even greater than then, but rarely, perhaps never before, such a brilliant group of investigators and clinicians. Students flocked to them from every land. Their writings, either in French or in the translations that quickly followed their issue from the press, were in the hands of the physicians of every civilized country. Paris was the capital of the medical world. Robin was teaching pathological anatomy and the use of the microscope in the study of normal and pathological histology, and at the age of thirty-two had just published observations upon glandular hypertrophies and the anatomical structure of erectile tumors. Claude Bernard, then forty, was working in physiology and developing experimental medicine, and had already published his researches upon the function of the spinal accessory nerve and the sugar-producing function of the liver. Valleix was teaching diseases of the newborn, internal pathology and therapeutics. Verneuil was carrying on his studies in visceral anatomy and the structure and functions of the circulatory organs. Duchenne de Boulogne, forty-seven years old and full of enthusiasm, was working out electrophysiological problems and demonstrating the uses of electricity and especially of galvanism in therapeutics. Nelaton was teaching surgical pathology; Civiale the diagnosis and treatment of diseases of the urinary passages, and Ricord venereal diseases with a wealth of material and a positiveness of assertion all his own. Broca was teaching morbid anatomy and writing papers upon anthropology. Velpeau, the versatile, anatomist, accoucheur, surgeon, ophthalmologist, brilliant teacher and voluminous writer, who among other curious matters had some years before published a brochure on medicinal injections into the closed

cavities of the body, was at the very height of his fame. Such was the schooling and such the influences under which the young DaCosta was preparing himself for a future even more useful and brilliant, and laying long plans for work in his chosen home beyond the Atlantic. But greater than the influence of any of these was that of the profound and eloquent Trousseau, then at the very zenith of his power and holding the younger medical world charmed with those wonderful lectures and essays which were afterward collected in the volumes known as the *Clinique Médicale de l'Hôtel-Dieu*. The impression made upon the youthful student by this master was without question deep and lasting. DaCosta was no mere copyist, particularly in style, but the close observation, the command of the facts, the orderly arrangement, the emphasis of important points, the graceful use of a rich vocabulary and the telling effect of climax characteristic of the discourses of the great French clinician were in later years to be recognized in the more terse but not less incisive or elegant method of his American successor.

From Paris DaCosta went to Prague for a brief time, where he availed himself of clinical advantages of an unusual character. Thence he proceeded to Vienna and passed some months in the study of general pathology and diseases of the heart and lungs under Oppolzer and Bamberger, physical diagnosis under Skoda, pathological anatomy with Rokitanski and diseases of the skin with Hebra. It is easy to imagine the quiet criticism with which the eager student contrasted the methods of the French school, then at the verge of the decline of its popularity, with those of the Viennese, still upon the ascendent. It is interesting to observe in the choice of masters and subjects at this period the drift of his thoughts. No longer uncertainty as to surgery or venereal diseases or midwifery, but a clear course toward his life-work, pathological anatomy, visceral disease, the heart and lungs and the diseases of the skin in their relation to general medicine—in a word, internal medicine in its broadest sense, the greatest of the specialties. Upon quitting Vienna he went for a brief period again to his beloved Paris and then returned to Philadelphia.

Here was work ready for him. He was invited to take part in the Summer Association for Medical Instruction, an organization having its location in Chant street, a place of historical interest in the medical life of Philadelphia, long famous for all kinds of extramural teaching. In this work he was associated with men somewhat older than himself but still young, who had already attracted attention as teachers and practitioners. Prominent among them were John Forsyth Meigs, Frank West, the Wallace brothers, Robert Bridges, John H. Brinton and Addinell Hewson. To DaCosta was assigned the subject of physical diagnosis. In this position he achieved an immediate success. His method of teaching and his ability as a lecturer attracted great attention, and the courses were continued for a number of years, in fact until a growing practice and the increasing demands upon his time through his appointments at the Jefferson College brought

them to a close. More important, however, were the private classes in physical diagnosis and clinical medicine which he organized about this time. These were conducted in his offices and were continued throughout the greater part of the year. They were extremely popular and were largely attended by advanced students and young practitioners, not only Philadelphians but also men from the South and West. This form of instruction served not only to extend the young clinician's growing reputation, but also to popularize to a greater extent perhaps than that of any contemporary teacher the methods of physical diagnosis, the value of which was only at that time beginning to be appreciated by the profession at large.

In 1858 the Chair of the Theory and Practice of Medicine in the Jefferson College was made vacant by the death of John Kearsley Mitchell; and Samuel Henry Dickson, of South Carolina, was elected his successor. From this date DaCosta became closely identified with the Jefferson College, at first as an instructor of telling influence in connection with the Chair of Medicine, subsequently as clinical lecturer, and finally, in 1872, as the successor to Professor Dickson in the Chair of Practice. He was then thirty-nine years old, and had already established himself as a successful practitioner, a teacher of the highest order and a trusted consultant. He had manifested from the beginning of his career a deep interest in the welfare of the organized profession, an interest which he maintained throughout his life. He early became a member of the American Medical Association. In 1857 he took an active part in the organization of the Pathological Society of Philadelphia, and was its president from 1864 to 1867. He was corresponding member of the Pathological Society of New York, and an honorary member of the Medical Society of New York and of the Medical Society of London. In 1858 he became a fellow of this College, and served as its president in 1884-1885 and again from 1895-1898. He was one of the original members of the Association of American Physicians, and its president in 1897. But his interest in scientific organizations was not confined to those composed exclusively of members of the medical profession. In 1852 he became a member of the Academy of Natural Sciences of Philadelphia, and in 1866 a fellow of the American Philosophical Society. He was also a member of the American Academy of Arts and Sciences, the New England Historical Society and other organizations. He served as physician to the Episcopal Hospital, to the Philadelphia Hospital and to the Hospital of the Jefferson College, and was for many years consulting physician to the Children's Hospital. He was a member of the staff of the Pennsylvania Hospital from 1865 until the time of his death, a period of thirty-five years. During this long service his interest in that great institution never failed. His visits were made with a regularity and punctuality with which urgent outside professional engagements were rarely permitted to interfere. His duties to the patients were discharged with consummate skill and faithfulness. Many of his most important contributions to the literature

of medicine were based upon his observations in the wards of the Pennsylvania Hospital. His clinics were models of the finest methods of medical instruction, clear, systematic and impressive. Sometimes they were telling presentations of familiar phases of disease; often keen studies of rare maladies; frequently opportune demonstrations of new facts in diagnosis or treatment, but always interesting and instructive. They were held in accordance with the time-honored usage of the place, at the busiest hour of the morning, but the amphitheater never failed of its full audience of eager and attentive students and practitioners. His opinion was of great weight in the counsels of the managers and of the staff, and his advice was constantly sought in matters of administration and professional policy. But the most important influence of this great clinician was that which he exerted upon the long line of resident physicians whose good fortune it was to serve with him. Some of his earlier residents are now among our older fellows, some of his latest have only recently joined our ranks. It is needless for me in this audience to dwell upon his methods at the bedside, his diagnostic accuracy, his skill in the use of remedies, his wide and well-ordered knowledge of medicine, his still greater knowledge of men. The living ex-residents of the Pennsylvania Hospital, most of whom are fellows of this College, pay his memory the tribute of gratitude and affectionate remembrance.

Dr. DaCosta was not a voluminous writer. The Athenian passion for going about seeking and telling something new, which has become so widespread a malady in the medical body, did not touch him. He had other work to do. He dwelt upon a loftier intellectual level. Viewed in the light of his remarkable influence upon the profession, the list of the titles of his papers appears singularly brief. Yet he did not miss opportunity, save in the way that every great professional man, whose time is given to his work, must for the very want of time leave much unsaid that would be well worth telling. He wrote when he had something to say, and always said it well. What I have said of his method as a lecturer may also be said of his style as a writer. It was simple, natural, lucid, emphatic. His occasional addresses were graceful and learned. His conversation was most agreeable and suggestive, and showed wide reading outside of professional topics and a lively interest in current events. He was fond of miscellaneous reading, and passed such hours as he could command in his library. At one period he took a keen interest in the Shakespeare Club and frequently attended its meetings.

His earlier medical papers were pathological—An Inquiry into the Pathological Anatomy of Acute Pneumonia, 1855; Cancer of the Pancreas, 1857; The Morbid Anatomy and Symptoms of Cancer of the Pancreas, 1858. His later communications were mostly clinical. They covered a wide range of observations, but those relating to enteric fever and valvular and functional diseases of the heart outnumbered the others. His clinical studies of the derangements of the heart in recruits, conducted

during the Civil War, constituted a most important addition to the previous knowledge of functional diseases of the heart, and have been very properly spoken of as epoch-making. They attracted wide attention both in this country and in Europe. He had the wisdom to write only one treatise—the *Medical Diagnosis*. This remarkable book, unique at the time of its publication, appeared in 1864. It was alike in design and execution a masterpiece among text-books, and served to establish his growing reputation. Its success was immediate and general. During the author's lifetime nine large editions, each carefully revised and collated with the advances of knowledge, were issued, and the work was translated into several foreign languages.

His breadth of view as a student is apparent in such lectures as *The Physicians of the Last Century*; *Harvey and His Discovery*; and *Tendencies in Modern Medicine*.

His writings show throughout literary ability of so high an order that we experience a deep regret that they were not given to us in larger measure—a regret that is tempered by the reflection that they are nowhere marred by the faults of haste, carelessness or overproduction. May we not hope to see his more important papers and addresses collected in one or more volumes for re-reading and reference!

DaCosta's learning and intellectual gifts and his distinguished professional attainments were everywhere recognized. The degree LL. D. was conferred upon him by the Jefferson College, the University of Pennsylvania and Harvard University, and he was made honorary and corresponding member of many learned and scientific organizations. But among those who came within the sphere of his direct personal influence there was a feeling for him much deeper than the admiration inspired by the recognition of his intellectual superiority and splendid professional gifts. The man was greater than the physician or the teacher. I have said that character is far-reaching. It is more than this. It makes itself deeply felt. It arouses sentiments more lofty and enduring than the admiration which is excited by mere ability even of the highest order. In his punctilious regard for duty, directness of purpose, the integrity and refinement of his daily life, a delicacy of feeling that sometimes seemed carried to an extreme, and the modesty with which he bore unusual honors, were traits that won for him upon every side, and in a high degree, respect, confidence and affection. The great classes of the Jefferson College as students and afterward as practitioners held him in the highest honor. As a consultant his position in Philadelphia and the parts within reach was supreme. He has been well spoken of as the physicians' physician—a title that means much. To his patients he was the ideal doctor. He brought to them the finest personal qualities and the highest professional skill, and they repaid him with love.

On the 20th. of January, 1892, there came together in the house of Dr. Weir Mitchell a little company to arrange to do Dr. DaCosta an honor. Some were doctors, some were not, but all were his

friends. The purpose of the meeting was set forth in a confidential note, which read thus:

"In recognition of Prof. J. M. DaCosta's distinguished labors in medical science, of his beneficent services to the community, and of the high personal esteem in which he is held, it has been proposed by a number of his friends to have two portraits painted—one to be presented to the College of Physicians of Philadelphia, of which he is an ex-president, and the other to be presented to the Jefferson Medical College, which for more than a quarter of a century has been the chief arena of his medical teaching. To this end the following committee, representing these two institutions and his friends, has been formed. You are cordially invited to become a subscriber to the fund to carry into effect this purpose."

A limited number of these invitations were sent to those who, the committee felt sure, would be glad to co-operate. Scarcely half a week had elapsed before the secretary was obliged to return contributions to the fund to the donors. The list was already full.

In April, 1860, Dr. DaCosta was married to Sarah Frederica Brinton, whose death preceded his by many years. Of this union there were two sons, one dying in infancy, the other, Charles Frederic, now a member of the Philadelphia Bar.

At the close of the session of 1890-1891 Professor DaCosta resigned the Chair of Practice in the Jefferson College and was elected Professor Emeritus. The succeeding winter he held the clinics as he had done before, but at the close of that term he withdrew from all active teaching except the short course of clinics at the Pennsylvania Hospital. Those he continued to hold until his death. His interest in medical teaching, however, remained active, and in the course of a few years he accepted the position of Trustee in the University of Pennsylvania. Meanwhile his untiring devotion to his profession did not abate and he worked on to the end.

Death came to him quickly on the 11th. of September, 1900, at his country seat, Ashwood, near Villa Nova, and at the close of the day—quickly, but not without pain. The attack was the last of a series that had extended over several months. In the supreme agony the voice of the clinician: "Just as I expected."

The fine and gentle presence has passed away, but the keen intellect and noble heart remain to us. So our great ones come and go. Hail and Farewell!

A Case of Nontuberculous Pyopneumothorax.—Lemièrre and Poupert report the case-history of a boy of 18, with pleurisy which soon became empyema. Pleurotomy was performed, followed by pyopneumothorax. Recovery finally resulted. The streptococcus and streptobacillus, odium albicans, staphylococcus aureus and staphylococcus citreus were all found in the pus examined. There were, however, no pneumococci or tubercle bacilli present. (*Journal des Sciences Médicales de Lille*, September 27 and October 4, 1902.) [M. O.]

Original Articles.

A YEAR'S WORK AT THE WHITE HAVEN SANATORIUM OF THE FREE HOSPITAL FOR POOR CONSUMPTIVES.

By LAWRENCE F. FLICK, M. D.,
of Philadelphia.

The White Haven Sanatorium of the Free Hospital for Poor Consumptives was opened on August 8, 1901, with three patients, a cook and a superintendent. The buildings of the sanatorium at that time consisted of a tumbled-down old barn and a very dilapidated small farmhouse, located on a tract of two hundred and fifteen acres of mountain land. The Free Hospital for Poor Consumptives had no money on hand with which to begin a well-equipped sanatorium, and there was no prospect of getting any in the near future, so it was decided to begin in the humblest way and depend upon Providence for the financial resources as the work would develop. A few comfortable single beds of ordinary hospital pattern and make-up were put on the barn floor for the patients; a little room in the farmhouse was plainly furnished for the superintendent, and another for the cook; a small kitchen range was secured and placed in a very primitive kitchen; a table and a few benches were made out of old boards for dining-room furniture, and a few dollars were expended for kitchen and dining-room utensils. This was practically the entire equipment, and the cost was but a trifle.

On August 12 three more patients were added to the little colony, and during the balance of the month, from time to time, a few more were added. By the first of September there were fourteen patients in the sanatorium. One hundred and sixty-nine days of treatment had been given with an aggregate gain of 67 pounds in weight.

The improvement of the patients was most gratifying, in spite of the primitive condition of things. Every one connected with the undertaking, friends of the institution as well as friends of the patients, was highly delighted. Appeals for admission began



FIG. II.—A northwestern view of the barn pavilion. It has two stories, and there are twenty-five beds on each floor.

to come in and, as enough money had found its way into the treasury in one way or another to pay the bills, the Society decided to increase the capacity of the infant institution. Fifteen beds had been purchased at the start, and ten more were now added. During September and October the number of patients was increased to twenty-five. Of the patients who had been admitted during the first month, four considered themselves well enough to go to work before the end of the second month, and took their discharge. Of these, one had gained eighteen and a half pounds, two had gained each eight pounds, and one had gained five and a half pounds.

When the Board of Managers talked over the matter of opening the sanatorium it was thought that under no circumstances could the capacity of the institution be increased beyond twenty-five beds during the first year. It was soon found, however, that this limitation could not be adhered to. The most urgent appeals came from everywhere, and as it was possible to pay the bills at the end of each month, a few beds were added from time to time. At the end of the first fiscal year there was a capacity of eighty beds, but in spite of this increase there was a waiting-list of over one hundred patients, and the pressure for admission was greater than it had been at any time.

During the first year the barn was gradually improved. It was weather-boarded and lined inside; a new floor was put down over the old one; a floor was put down over the loft, thus making two stories; windows were put in; a wash-room and a clothes-room were provided; a wooden fire-escape was built on the outside, and a covered porch was built on the southern side. All of this cost but a few thousand dollars and, when done, gave a fine pavilion with a capacity of fifty beds. In the spring tents were purchased and furnished for thirty patients more. This made it possible to take women patients. The little house, which originally had two small rooms on each floor, making four in all,



FIG. I. A southeastern view of the mountain on which the sanatorium is located, at a distance of two miles.



FIG. III.—A view of the women's tents at close range.

and an outkitchen, was made more serviceable by enlarging the kitchen, putting in another range, and building porches on the eastern and southern sides for tables, so as to increase the dining facilities. From this little administration building eighty to ninety people were fed during the summer. A kiosk for rest-cure in bad weather and a small spring house for the storage of milk and eggs were built a little way off from the administration building. With this primitive equipment most excellent results have been obtained as the year's work shows.

During the year there were one hundred and fifty-



FIG. IV.—A southern view of the women's tents.

six admissions. Of these, sixteen remained less than a week, and eighteen more, less than a month, making a total of 34 who remained less than a month. Some left because the place was too primitive; some because the weather was too cold, or because they were afraid to sleep in a draught; some because the associations were not good enough, and a few had to be discharged for breach of discipline.

Inasmuch as the work is strictly for the poor, every applicant is admitted in the order of his application, irrespective of his antecedents. Consequently persons of all shades and complexions of

respectability, ethics and morals get into the institution. All must, however, live up to the rules and conduct themselves peaceably and properly, under penalty of expulsion. They must observe the sanitary regulations to the letter. Beyond this, however, the sanatorium cannot go. It cannot make them agreeable people to associate with, nor give them refined manners. Many of those who left would have done well had they remained, but they lacked the courage to put up with the hardships involved. Some of those who remained and recovered were less promising at the outstart than those who left, but they possessed what the others lacked—courage and adaptability to primitive environments.

During the last session of the Legislature \$40,000 were appropriated to the Free Hospital for Poor Consumptives for buildings and equipment, at White Haven. Out of this money an artesian water-supply is being provided, and three brick cot-



FIG. V.—A northern view of the new cottages.

tages, with a capacity of sixteen patients each, are being put up. These cottages will be completed and in use by the first of December. With them and the barn pavilion the sanatorium will have a capacity of ninety-eight beds. A private fund is being raised with which to provide a bactericidal sewage plant and transform the basement of the barn pavilion into a large dining-room and kitchen. When all these improvements have been made, the sanatorium will be well equipped for the winter and will be in a position to make its patients more comfortable.

The results which have been obtained at the White Haven Sanatorium during the first year are far beyond expectation. A majority of the patients who remained over three months have either recovered their health sufficiently to return to their avocations or are making rapid progress toward that condition. Quite a large percentage of the patients left as soon as they were well enough to go to work, promising to keep up their treatment at home. Some of these have done well, and it is quite possible that, with the knowledge they have gained at



FIG. VI.—A southwestern view of two of the new cottages. —Each cottage will accommodate sixteen patients and attendants.

the sanatorium and the habits of life which they have formed, they will progress to recovery while pursuing their callings. It is to be feared, however, that the majority will relapse because of the hardships which they will encounter. Two deaths occurred during the year at the sanatorium, both within a few weeks of their arrival, and a few patients have had to be sent to the city wards because of a retrogression in their condition. The two patients who died were in such bad condition when they arrived that they could not be moved again. Of those who were admitted and remained over one month, six are known to be dead.

The sanatorium was opened ostensibly for incipient cases. It was impossible, however, to limit admissions to this class, first, because not enough of such cases could be had, and, secondly, because the pressure for the admission of other cases was too great to be withstood. Advanced cases were cautiously admitted, and, upon it being found that they did well, the doors were thrown open to all subjects who did not show a rapid downward tendency. Of the hundred and fifty-six admissions there were only fifteen who might be termed incipient



FIG. VII.—A group of men who have been in the sanatorium from a few days to a week.

cases. Sixty-three had both lungs involved, and about ten per cent. of the entire number had at least one other organ or tissue involved beside the lung, such as a kidney, a testicle, the pleura, the larynx or the periproctum. Very few had been tubercular for less than one year, many of them for two or three years, and a few for many years.

In age the patients ranged between nine and sixty years. The majority were of the age of greatest activity and usefulness in life, namely between twenty and fifty years. The accompanying table gives a record of the patients who remained in the institution for three or more months, and gives a very fair idea of the class of patients admitted, the walks of life from which they came and the results.

The treatment at the White Haven Sanatorium has been out-of-door life, a carefully selected diet, regulation of exercise and medication for the improvement of nutrition. The patients practically are kept in the open air for the twenty-four hours, irrespective of weather. At night all the windows in the pavilion are kept open, so that the air circulates freely throughout the sleeping apartments. Draughts are disregarded. Ample bed-covering is supplied to keep the body warm, and in cold weather bed-warmers are furnished the patients. In day-



FIG. VIII.—Picture taken Sep. 8, 1902.—Total number of days in sanatorium, 489.—Total number of pounds gained, 106.—Average gain, 17 1-7 pounds.—Average time, 69 6-7 days.

time the patients either sit out of doors or work. The work is graded according to the strength of the patient. Each patient is required to take no less than three quarts of milk a day and no less than six raw eggs a day, and is advised to take as much more of this kind of food as he can. In addition to this food he is given a good dinner in the middle of the day and a very light breakfast and supper. The dinner consists of roast beef or beefsteak, vegetables, some light desert, such as pudding, custard or ice-cream and fruit. The breakfast consists of some cereal and, in cold weather, hot milk or coffee. The supper consists of boiled rice and fruit, cheese, milk and eggs. The medication used is: Europhen inunctions in all cases; varying aids to digestion in practically all cases; creosote in all advanced cases; ex-

pectorants occasionally, when indicated, and stomachics when indicated. Alcohol or opium are rarely used. Antidiaphoretics are not used. Under the treatment which is followed, coughs and night-sweats soon disappear, so that there really is no need of opiates and antidiaphoretics. When patients contract colds, as they occasionally do when someone comes into the sanatorium with a cold, they are at once put to bed and kept there until they are over the acute stage. Colds always come in epidemics, passing through the entire sanatorium. As a precautionary measure the sanatorium has printed notices at the entrances to the grounds requesting people with colds to remain off the premises. For hemoptysis nitroglycerine is used. As a precautionary measure against hemorrhage nitroglycerine is given in all cases in which there is an accentuated second sound of the heart. The sanatorium, under this practice, has been comparatively free from hemorrhages, there having been but three cases in the institution during the year.

The pulse and temperature of each patient are taken and recorded night and morning, and the weight is taken and recorded once a week. These records give an indication for the regulation of diet and exercise and are carefully studied for that purpose. Patients who have rise of temperature and disturbed pulse-rate are not permitted to take any exercise. Unless a patient gains weight, his diet is incorrect, and an effort is made to correct it.

For sanitary reasons each patient is provided with a spit-box and with paper napkins. When possible, expectoration must always take place into the spit-box, and, when this cannot be done, into a paper napkin. Paper napkins must always be used for wiping the mouth. Every day the paper spit-boxes, with their contents, and the paper napkins which have been used are burned. For convenience each patient is supplied with a paper coffee-bag into which he places his soiled paper napkins. Expectoration upon the grounds of the sanatorium is made a cause for expulsion.

The first year's work at the White Haven Sana-



FIG. IX.—Picture taken Sept. 8, 1902.—Total number of days in Sanatorium, 1287 days.—Total number of pounds gained, 165 1-4 lbs.—Average gain, 23 17-28 lbs.—Average time, 183 6-7 days.



FIG. X.—Picture taken Sept. 8, 1902.—Total number of days in Sanatorium, 669.—Total number of pounds gained, 199 lbs.—Average gain, 24 7-8 lbs.—Average time, 87 3-8 days.

torium teaches some valuable lessons: (1) That tuberculosis is curable under the most primitive conditions, provided the patient is kept out of doors and given plenty of the right kind of food. The comforts of life are of secondary consideration, and exposure to weather and cold may be disregarded. (2) That for successful sanatorium work patients should be carefully classified and kept apart, according to the classes to which they belong. Incipient cases and chronic cases with a good resisting power and a strong tendency to recovery should be kept in an institution by themselves; advanced cases, in which there is fever, and in which it cannot be decided whether they will recover or not, should be kept in a separate place by themselves; and dying patients should be kept in an institution especially adapted for comfort and amelioration of distressing symptoms. (3) That tuberculosis is seldom recognized in practice until it is far advanced, and that many patients continue to work when they have more than one important organ of the body involved. The subjects which have been sent to White Haven have all been sent under instructions to send only early stage cases, and yet many have had not only both lungs involved, but have had involvement of the kidneys or some other intra-abdominal organ. Systematic examination of the urine for tubercle bacilli has revealed involvement of the kidneys in a surprisingly large percentage of patients admitted. (4) That incipient cases recover in a very short time, and advanced cases require a long time for complete recovery. Inquiry has been made into the condition of patients who have left the institution in good enough condition to go to work. The incipient cases have kept perfectly well, the advanced cases have mostly lost ground. A few of the advanced cases who remained in the institution for practically the entire year, and who still remain, are apparently making a complete recovery. They are now able to do a hard day's work without fatigue or disturbance of pulse-rate. Their cure, however, takes the time and money which would save from four to eight other lives.

TABLE GIVING RECORD OF ALL CASES WHICH WERE IN SANATORIUM THREE MONTHS OR OVER.

Number and date of admission.	Sex	Age	Married or single.	Occupation.	Nativity.	Organs and tissue involved.	Stage of the disease	T. B. on admission.	Probable duration of illness.	Weight on admission.	Gain.	Number of days in sanatorium.	T. B. on discharge.	Present condition.	Remaining left or discharged.	REMARKS.
II. 8, 8, 01.	M.	53	M.	Insurance Agent	Pa.	Lung. Rt. upper lobe. Periproctum.	Softening	1 yr.	118½ lbs.	19¼ lbs.	165	N.	Well	Discharged		Had been under treatment at Rush Hospital. Is working and well.
VI. 8, 12, 01	M.	17	S.	Clerk	Pa.		Softening	P.	6 ms.	110½ lbs.	26 lbs.	220	N.	Well	Discharged	Had been under treatment at Gabriell Sanatorium Adirondacks. Is working and well.
VII. 8, 16, 01	M.	16	S.	Errand Boy	Pa.	Lung. Rt. u. l.	Infiltration	N.	6 ms.	89½ lbs.	25 lbs.	305	N.	Well	Discharged	Is working and apparently entirely well.
VIII. 8, 17, 01	M.	31	S.	Engineer	Pa.	Lung. Rt. u. and m. ls.	Softening	P.	1 yr.	138 lbs.	22 lbs.	112	P.	Fair	Left	Has been working since left. Has not recovered entirely.
IX. 8, 24, 01	M.	40	M.	Button Maker	U. S.	Lungs. Both u. ls.	Softening	P.	2 yrs.	118½ lbs.	22½ lbs.	349		Good	Remaining	Is working in Sanatorium. Still has t. b.
X. 8, 24, 01	M.	21	S.	Draughtsman		Lung. Rt. u. l.	Infiltration		1 yr.	119 lbs.	18 lbs.	129	N.	Well	Discharged	Is working and well. Had been in Colorado before admission.
XI. 8, 29, 01	M.	21	S.	Waiter	Azores	Lungs. Both u. ls.	Softening	P.	2 yrs.	141 lbs.	4 lbs.	141	N.	Well	Discharged	Had been at Gabriell Sanatorium and had reached normal weight. Is working and well.
XII. 8, 29, 01	M.	21		Driver	U. S.	Lung. Rt. u. l.	Softening	P.	1 yr.	134 lbs.	7 lbs.	104	P.	Dead	Sent to city	Did well for awhile. Interrupted his treatment for a time and began to run down.
XIII. 8, 29, 01	M.	36		Machinist	U. S.	Lungs. Rt. u., m. and l. u. ls.	Softening	P.	2 yrs.	131 lbs.	29 lbs.	346	N.	Well	Discharged	This was an advanced case which did exceedingly well. Working at present.
XVII. 9, 12, 01	M.	49		Undertaker	U. S.	Lung. Rt. u. l.	Infiltration	N.	6 ms.	152½ lbs.	41½ lbs.	189	N.	Well	Discharged	This man is well, but owing to defective sight has been unable to get employment.
XIX. 9, 15, 01	M.	27	S.	Clerk	U. S.	Lungs. Both u. ls.	Softening	P.	1 yr.	129 lbs.	16 lbs.	287	P.	Dead	Left	Did well at first. Took on an acute condition which could not be checked.
XXIII. 9, 26, 01	M.	49	M.	Chinapacker	U. S.	Lung. Rt. u. l.	Infiltration		6 ms.	131 lbs.	32½ lbs.	168	N.	Well	Discharged	Was working and well when last heard of.
XXIV. 9, 30, 01	M.	25	S.	Coremaker	Ireland	Lungs. Both u. ls.	Softening	P.	4 yrs.	133 lbs.	30½ lbs.	317		Good	Remaining	T. B. Negative. Has since been discharged and has gone to work.
XXV. 10, 3, 01	M.	33	M.	Tailor	Germany	Lung. Rt. u. l.	Softening	P.	1 yr.	120 lbs.	26 lbs.	169	N.	Well	Discharged	Is well. Has been working at his trade since his discharge.
XXVII. 10, 9, 01	M.	25	S.	Operator in rubber works.	Maryland	Lung. L. u. l.	Softening	P.	1 yr.	130 lbs.	31¼ lbs.	303		Good	Remaining	T. B. Positive. This patient is apparently in perfect health but still has t. b.
XXXV. 10, 27, 01	M.	19	S.		Pa.	Lung. Rt. u. l.	Infiltration		6 ms.	114 lbs.	19¼ lbs.	145	N.	Well	Discharged	Has quite recently reported himself in perfect health.
XXXVI. 10, 27, 01	M.	48	M.	Miner	Pa.	Lung. Rt. u. l.	Infiltration		1 yr.	152 lbs.	38¼ lbs.	133	N.	Well	Discharged	Has quite recently reported himself in perfect health. Is working.
XXXVII. 10, 31, 01	M.	32	S.	Laborer	Ireland	Lungs. Both u. ls.	Softening	P.	6 yrs.	135 lbs.	10¼ lbs.	135		Fair	Remaining	T. B. Positive. A chronic asthmatic. Has recovered from asthma.
XXXVIII. 11, 2, 01	M.	21	S.		Pa.	Lungs. Both u. ls.	Cavity	P.	2 yrs.	132 lbs.	27½ lbs.	227	P.	Fair	Left	Left before he was well. Is continuing his treatment at home.
XLVII. 12, 5, 01	M.	21	S.	Driver	Pa.	Lungs. Both u. ls.	Softening	P.	1 yr.	128 lbs.	18 lbs.	244	P.	Dead	Remaining	This man had organic heart disease from which he died suddenly after having improved very much.
XLIX. 12, 12, 01	M.	30		Decorator	U. S.	Lungs. Entire rt. and l. u. l.	Cavities	P.	5 yrs.	101½ lbs.	5 lbs.	237	N.	Fair	Left	Had been in Texas some years. Is at present at work and in fair condition.
LVI. 12, 21, 01	M.	22	S.	Farm-hand	Pa.	Lungs. Rt. u. and m., l. u. ls.	Softening	P.	2 yrs.	129 lbs.	25 lbs.	184	N.	Well	Discharged	Is working and well. Has taken a position on street car.

TABLE GIVING RECORD OF ALL CASES WHICH WERE IN SANATORIUM THREE MONTHS OR OVER.

Number and date of admission.	Sex & age	Married or single.	Occupation.	Nativity.	Organs and tissue involved.	Stage of the disease.	T. B. on admission.	Probable duration of illness.	Weight on admission.	Gain.	Number of days in sa- natorium.	T. B. on discharge.	Present condition.	Remain- ing, left or discharged	REMARKS.
L.III. 12, 30, 01.	M. 20 S.		Carpenter	Italy	Lungs. Rt. u. and m. lobes.	Infiltration	N.	1½ yrs.	111 lbs.	6 lbs.	184	N.	Fair	Left	Is working and well. Had been under treatment before entering sanatorium.
L.IV. 1, 2, 02.	M. 38 S.		Laborer	Pa.	Lungs. Rt. u. and m. ls.	Softening	P.	2 yrs.	121 lbs.	12¾ lbs.	218	Fair	Fair	Remaining	T. B. Positive. An advanced case. Is slowly recovering.
L.VI. 1, 2, 02.	M. 18 S.		Tailor	Italy	Lungs. Both u. ls., kidneys.	Softening	P.	1 yr.	97½ lbs.	11½ lbs.	218	Fair	Fair	Remaining	T. B. Positive. An advanced case. Is improving.
L.VIII. 1, 7, 02.	M. 33 S.			U. S.	Lungs. Both u. ls.	Cavity	P.	2 yrs.	149½ lbs.	20½ lbs.	212	Good	Good	Remaining	T. B. Positive. Is working in sanatorium and in good health.
L.IX. 1, 16, 02.	M. 27 S.		Laborer	Ireland	Lungs and larynx. Both u. ls.	Softening	P.	1½ yrs.	150 lbs.	8 lbs.	190	P.	Dead	Sent to city	Disease made continuous progress in spite of gain in weight.
L.X. 1, 20, 02.	M. 35 M.		Clerk	U. S.	Lungs. Both u. ls.	Cavity	P.	1½ yrs.	150 lbs.	18 lbs.	200	Good	Good	Remaining	T. B. Positive. Is working in sanatorium in good health.
L.XIII. 1, 23, 02.	M. 24 M.		Breaker	Pa.	Lung. L. u. l.	Softening	P.	1½ yrs.	131 lbs.	13½ lbs.	197	Fair	Fair	Remaining	T. B. Positive. Is in good condition.
L.XV. 1, 29, 02.	M. 18 S.		Mill-hand	Pa.	Lungs. Both u. ls.	Softening	P.	1½ yrs.	112½ lbs.	16¾ lbs.	191	Fair	Fair	Remaining	T. B. Positive. Is in good health and working in sanatorium.
L.XVIII. 2, 21, 02.	M. 27 S.		Laborer	Pa.	Lungs. L. u. l., empyema.	Softening	P.	1 yr.	139¾ lbs.	17¼ lbs.	160	N.	Fair	Left	Considered himself well enough to go to work.
L.XIX. 2, 27, 02.	M. 36 M.		Conductor	Pa.	Lungs. Both u. ls.	Softening	P.	2 yrs.	118½ lbs.	12½ lbs.	167	Fair	Fair	Remaining	T. B. Positive. Was sick when began car conducting. Is improving.
L.XX. 3, 1, 02.	M. 48 S.		Lineman	Pa.	Lung. Rt. u. l., larynx.	Softening	P.	1 yr.	132¼ lbs.	4½ lbs.	118	P.	Un- impr.	Left	Went out to undergo an operation and did not return.
L.XXII. 3, 6, 02.	M. 46 M.		Salesman	Scotland	Lung. Rt. u. l.	Softening	P.	1 yr.	98½ lbs.	23 lbs.	155	P.	Fair	Discharged	Went out to take a position. Is in fair condition.
L.XXIII. 3, 7, 02.	M. 17 S.		Printer	Ireland	Lungs. Both u. ls.	Softening	P.	1 yr.	104 lbs.	9¾ lbs.	154	Fair	Fair	Remaining	T. B. Positive. Is doing well.
L.XXVI. 3, 22, 02.	M. 30 M.		Barber	Germany	Lungs. Both u. ls.	Cavity	P.	2 yrs.	101 lbs.	11½ lbs.	139	Fair	Fair	Remaining	T. B. Positive. An advanced case. Is doing well.
L.XXVII. 3, 25, 02.	M. 23		Baker	U. S.	Lungs. Both u. ls.	Infiltration	N.	1 yr.	135 lbs.	11¼ lbs.	128	Fair	Fair	Remaining	T. B. Negative. Left institution since, because he wanted to go home.
L.XXX. 3, 26, 02.	M. 15 S.		Schoolboy	U. S.	Lung. L. u. l.	Infiltration	N.	6 mos.	78½ lbs.	13½ lbs.	103	N.	Well	Discharged	Well and back at school.
L.XXXII. 3, 26, 02.	M. 19 S.		Machinist	Pa.	Lung. Rt. u. l. and l. a. larynx.	Softening	P.	2 yrs.	119½ lbs.	36 lbs.	125	P.	Fair	Discharged	Wanted to go to work. At present in good condition.
L.XXXV. 4, 1, 02.	M. 32 S.		Insurance Agent	Pa.	Lung. Rt. u. l.	Infiltration	N.	5 yrs.	111½ lbs.	7¼ lbs.	91	N.	Fair	Discharged	In fair condition at present. At work.
L.XXXVII. 4, 5, 02.	M. 29 S.		Wallpaper maker	Pa.	Lungs. Both u. ls.	Softening	P.	1½ yrs.	120¾ lbs.	6½ lbs.	124	Fair	Fair	Remaining	T. B. Positive. Is improving rapidly.
L.XXXVIII. 4, 18, 02.	M. 50 M.		Wood turner	Germany	Lungs. Both u. ls.	Softening	P.	2 yrs.	113½ lbs.	8½ lbs.	112	Fair	Fair	Remaining	T. B. Positive. Is improving slowly.
XC. 5, 5, 02.	M. 32 S.		Copper worker	Pa.	Lungs. Both u. ls., kidneys.	Softening	P.	1½ yrs.	116½ lbs.	3½ lbs.	95	Im- prov.	Im- prov.	Remaining	T. B. Positive. Has improved some but will probably run to fatal termination.
XC.I. 5, 5, 02.	M. 23 S.		Billiard room keeper.	U. S.	Lungs. Both u. ls.	Softening	P.	4 yrs.	119½ lbs.	5 lbs.	95	P.	Dead	Left	Was in bad condition. Went home and has since died.
XC.IV. 5, 9, 02.	M. 45 M.		Paper-hanger	U. S.	Lungs. L. u. and l. ls.	Softening	P.	1 yr.	110½ lbs.	22¾ lbs.	91	Good	Good	Remaining	T. B. Negative. Has since gone to work. Is well.
XC.V. 5, 9, 02.	M. 37 M.		Iron-worker	U. S.	Lungs. Both u. ls. and rt. m.	Softening	P.	2 yrs.	121½ lbs.	15¼ lbs.	91	Good	Good	Remaining	T. B. Negative. Has since gone to work. Is well.
XC.VI. 5, 10, 02.	M. 30 M.		Baker	U. S.	Lung. L. u. l.	Softening	P.	2 yrs.	118 lbs.	10¼ lbs.	90	P.	Dead	Left	Had organic heart disease on which account he went home. Died since.

A CASE OF STAMMERING; WITH EXHIBITION OF
PATIENT.*By G. HUDSON MAKUEN, M. D.,
of Philadelphia.

My excuse for reporting this case is not that it is in any respect unusual but that every case of stammering is of interest in a meeting of this sort, if for no other reason, because of its novelty. The patient, T. E. F., 30 years of age, applied to me for treatment on January 24th. of the present year. He had always stammered and his trouble was growing progressively worse. He had never had a fright or nervous shock, did not voluntarily imitate any one similarly affected, nor was he ill-used, scolded or ridiculed at the time the trouble began. He had had none of the acute infectious diseases of childhood, and he was physically normal with the exception of a slight astigmatism which had been corrected by glasses. There is a history of tuberculosis on his father's side, and his father and an older sister also stammered; so that we may suppose that he inherited the tendency to stammer and afterward acquired the defect.

He had a small spur on the left side of the nasal septum, causing little, if any, obstruction to breathing, and a slight nasopharyngeal catarrh, such as I believe is not uncommon in the New England climate. It was decided that no operative interference was necessary, but local treatment was continued during the two weeks and a half in which he remained under my care. His speech was rapid, rambling and disconnected, and when he once got under way he seemed to fear to stop lest he might be unable to begin again. He appeared to have no conception of the time element in speech, and in this respect his ear was markedly at fault. This is true to some extent of all stammerers. The auditory centers in the brain fail to recognize the natural sequence of the physical elements of speech. Syllables and words are jumbled together in a chaotic mass without regard to their proper place and relative order, and the organs of speech are unable to respond to the resultant unreasonable demands upon them. Inco-ordination follows, the ear gradually grows accustomed to it and finally fails to recognize it or to distinguish it from normal speech. If the patient were enabled suddenly to speak correctly, his speech would appear to him to be strange and unnatural.

The man who habitually uses the falsetto tones thinks he is using the normal chest tones, and when he is first taught to make use of the chest tones, such as we use normally in speech, he immediately regards them as being unnatural and unlike those of his fellows. It may be regarded as a general rule that a defect or any peculiarity of speech is not recognized by the speaker, and, as with any other fault, he must be brought to a full realization of its existence before he can eradicate it.

The ear of the stammerer, therefore, must be trained to recognize normal speech before he can be taught to use it. Of so great importance is the time element in the training of stammerers that

some teachers have regarded it as being the whole thing and have based upon it the secret of their so-called cures.

I recall distinctly the first one of these "Stutter Doctors" I ever met. He came to the office of a school in which I was a student, and upon being asked about his business, said, "I cure stammering." Upon investigation it was found that his method, secret, of course, and parted with only for a consideration, consisted merely in nodding the head during efforts to speak. Others have advised beating time with the hand, the finger, or the foot, and still others use mechanical contrivances, such as the swinging pendulum, all recognizing the value of the time element in speech. The mistake they make, from the scientific point of view, is in presuming to claim that beating time will cure all cases of stammering. It is similar to the mistake of the so-called osteopath, who claims that massage will cure all forms of disease, and the position of the one is as absurd as that of the other.

It is not impossible, however, that any one of these schemes might have succeeded, to a certain extent, in the case under consideration, because it is one in which the natural rhythm of speech was entirely lacking. As one may be said to have no ear for music, so our patient had no ear for speech, and as one may develop an ear for music, so one may develop an ear for normal speech. The swinging pendulum is used by musicians to teach time, and it may be well occasionally to employ some such contrivance with the stammerer, but, as a rule, it is probably better to help him to rely upon his own resources. The normal action of the organs of speech is rhythmical and therefore their proper use may take the place of all extraneous movements or contrivances such as I have described, and thus the time sense, if I may use that expression, may be developed in the brain. My treatment in this case consisted chiefly in the rhythmical exercise of the organs of respiration and phonation, making use of the physiological elements of our language. This, as you will observe, served the double purpose of familiarizing the patient with the correct forms of speech and of training his ear to recognize them in their natural order and sequence. Formally he knew that he lacked freedom of speech, but subjectively he had no mental concept of what free speech would be. He recognized it in others, but he could not recognize it in himself, because his brain lacked the preliminary sensory impressions which usually serve as a model for good speech and without which the patient has no subjective standard of comparison. Just as the training of the singer consists largely in mental development, so must the training of the speaker, whether he be a stammerer or not, consist in the establishment of accurate mental concepts of the correct forms of speech. When this has been accomplished, the peripheral mechanism of speech will be easily brought into normal action. The only exceptions to the rule are those comparatively few cases in which there are organic lesions, causing obstruction and requiring operative measures for their removal.

*Read at the annual meeting of the American Laryngological Association, Boston, May 27., 1902

Discussion.

Dr. A. Coolidge, Jr., asked the reader whether a person with a falsetto voice did not usually recognize this voice as unnatural. In his own experience, after attention had been called to it, the patient had recognized that the chest voice was correct and the falsetto voice the wrong one.

Dr. F. I. Knight asked what was the method pursued by Dr. Makuen in the case presented by him.

Dr. W. E. Casselberry said that Dr. Makuen had exhibited in Chicago, four years ago, a patient exemplifying the hesitation in pronunciation of the vowels. This seemed to be due to a lack of respiratory force synchronous with efforts at laryngeal tone production. The tone production failed on the vowels or vocal consonants. The causation in that case seemed quite clear, and the patient demonstrated the methods of breathing. The case now under discussion seemed to be of another species and, hence, he would like additional information regarding the method of treatment employed and the distinction between the two cases.

Dr. Makuen said that the man with the falsetto voice does not recognize that he is speaking in a tone different from that used by others, and would not realize it if his attention were not called to it by some one else. It was because of unpleasant criticism that he usually sought relief. Such cases were practically cured when it was proved to them that they were not using the normal voice, and they were shown how to use the normal voice. When they were enabled to produce the correct chest tone, they would look with astonishment and say that the sound appeared to them to be hoarse, unnatural and disagreeable. He agreed with Dr. Coolidge that it took but a short time to convince them that their voice was wrong. It was a mental condition existing in the auditory centers of the brain. Every one was accustomed to his own voice, and each person thought he had about as good a voice as possible until told that he had not. He regretted that for lack of time he had not demonstrated the method of treatment with his patient. The difference between this patient and the one shown in Chicago had been well brought out by Dr. Casselberry. The Chicago case lacked the vowel element of speech. The patient was unable to make the proper vibration of the vocal bands at the exact instant it was required. When one considered the extreme nicety of balance and adjustment necessary for correct speech, it seemed wonderful that more people did not stammer. This man was lacking in the time sense required for speech. He was unable to produce the elements of speech in their proper sequence. He was, therefore, taught to beat time, using the respiratory organs for that purpose.

This can easily be done, owing to the fact that the expiratory blast necessary for the production of tone requires a distinct muscular effort and the patients are instructed to speak syllabically. In this process each syllable must be the result of a definite contraction of certain respiratory muscles, and this to be followed by a complete relaxation of these muscles and a contraction of certain other

muscles required for inhalation. During the emission of the syllable the thoracic cavity must be diminished in size, and during the following inhalation it must be increased in size, and the succession of the various muscle contractions necessary for this purpose constitutes the rhythmical action by which the patient may gain control of the respiratory and vocal organs, and at the same time develop the time sense so important in normal speech. At the time of the emission of each syllable, therefore, the patient is instructed to contract the diaphragm and abdominal muscles, the result of which is to compress the abdominal viscera and to diminish the circumference of the thoracic walls, especially in the region of its lower half. When the syllable is completed, these muscles immediately relax and the thoracic walls tend to return to their normal position and, if necessary, slightly beyond this position by the contraction of the inspiratory muscles. In this manner the patient is taught to count one—two—three—four, etc., and to speak in syllables, the fact being impressed upon him that, as Alexander Melville Bell has said, "sy-(1)la-bi-cation—is—the—cure—for—all—o-ra-to-ri-cal—and—speech—de-fects."

REPORT ON RECENT ADVANCES IN GYNECOLOGY.*

By MATTHEW D. MANN, M. D.,
of Buffalo, N. Y.

In no department of medicine have the last twenty-five years seen a greater advance than in gynecology. American gynecologists have taken a proud part in this onward movement, and we may call Sims, Emmet, and those who immediately followed them, the pioneers and fathers of gynecology. Following the advent of listerism, the advance went on with most marvelous rapidity—so fast did new operations follow each other that one could hardly keep track of them. Medical treatment was soon left far behind, and gynecology has become almost exclusively a branch of surgery. Latterly there have been very few marked advances, most of what is new consisting in the perfection of old methods and the application of principles already well understood to the treatment of new affections. The result is that within the last few years nothing startling has happened, and any paper which has for its subject the recent advances in gynecology must take cognizance of minor steps rather than great events, such as followed each other in quick succession a few years ago.

One of the most startling recent innovations which has been presented to surgeons, and to gynecologists in particular, is spinal cocainization. At one time this bid fair to become very popular, but of late little has been heard of it. Certain very radical objections have been found to it, which render it much less generally applicable than was first thought. In the first place, it has not been so harmless as was claimed. Recluse (p. 57, G.) asserts that in March, 1901, there had been six deaths from spinal cocainization in Europe, the number of cases being probably two thousand. This would

*Read before the American Therapeutic Association, May, 1902, at New York.

indicate a much larger death-rate than has generally been claimed for ether. Beside the danger, various unpleasant symptoms—such as severe headache, vertigo and vomiting and involuntary defecation—have been noticed. The fact that the patient is conscious must also be considered a very grave objection, especially in the cases of nervous and hysterical women. On the whole, the tendency seems to be to restrict this method to cases in which ether or chloroform cannot be used with safety, and in such it may have a useful place.

The form of anesthesia which seems to be in greatest favor at present is nitrous oxide gas followed by ether. This method, which is not new, has been only recently adopted in this country, and the results have been exceedingly satisfactory. Much less ether is used than by the old method, and the effect on the organs—lungs and kidneys—is not so marked. Statistics on a larger scale show that it has only a slightly larger mortality than ether alone. As far as immediate deaths go, ether must be considered as the safest anesthetic; but its effects on the kidneys and lungs are such that undoubtedly a certain number of deaths must be charged to its account. In the new method the kidneys seem to escape harm, owing to the small amount of the drug rendered necessary.

Considerable attention has been directed to the methods of antisepsis, the tendency being all the time toward simplifying our procedures. Some operators, the writer among others, have nearly banished antiseptic solutions from the operating-room. The disinfection of the hands having been found to be almost an impossibility, rubber gloves are being very generally employed. While they have their disadvantages, and while they can scarcely be used in certain operations, their employment can be made very general and the results are shown to be most satisfactory. Especially is thus true in operations in which the tissues must be handled very much, as in hernia or Alexander's operation. Within the abdomen they do not seem to be so necessary, as the abdominal cavity apparently has the power of taking care of a certain number of germs without harm. The main principle remains, as it has for some time past, to prevent any infection from getting into the wound rather than destroying it after it is there—asepsis, in other words, instead of antisepsis.

In the way of following out the full idea of antiseptic surgery, a perfectly aseptic and absorbable ligature must always be a desideratum. For this purpose catgut seems still to hold its own, although kangaroo tendon is favored by many. That catgut can be rendered absolutely sterile without destroying its strength seems now to be well recognized. The investigations which were made in the Municipal Bacteriological Laboratory in Buffalo, a year or two ago, show that the method recommended by Dr. Wm. G. Bissell is entirely satisfactory. He soaks the catgut in a solution of bichloride of mercury in ether, varying the period of immersion according to the size of the gut. The catgut is then boiled in alcohol to extract the bichloride. A large number of cultures show conclusively that this method renders the catgut absolutely sterile in ev-

ery instance and, if properly carried out, without destroying its tensile strength. Catgut prepared in this way is readily absorbed. The writer, from a large experience, can conscientiously recommend this method of preparation. Many operators are still afraid of using catgut, but those who have gotten over their fears and have used it for years feel absolute confidence in its staying powers. Knots of catgut will not slip if properly tied.

Organotherapy has occupied a great deal of attention in the last few years. The use of thyroid extract in certain uterine conditions has been followed by satisfactory results. This is particularly true in the case of uterine fibroids and in certain cases of menorrhagia. As yet no rules have been formulated for determining which kind of tumors will be beneficially affected. Some tumors are not influenced at all, while others seem to diminish very rapidly under the exhibition of this drug. The writer has seen some exceedingly satisfactory results, but in other cases has been greatly disappointed. Examination of the literature shows that this is nearly the universal experience. When the drug is being used, great care should be taken to see that the heart is not injuriously affected. Severe and even dangerous tachycardia sometimes develops.

The use of the mammary extract has not been attended with satisfactory results. The drug is, however, still under trial and may prove to be of use. Adrenalin has been used in gynecology, both by internal administration and as a local application within the uterus, for its constricting effect upon the bloodvessels. It has also been injected hypodermically, or mixed with salt solution for hypodermoclysis, for its stimulating effect. It seems to be a real and valuable addition to our *materia medica*.

The ovarian extract has been used for several different purposes. Krusen holds that it is practically harmless, even in full doses, no untoward effects having been observed. No beneficial results were obtained in amenorrhea or dysmenorrhea; nor was any good accomplished in the natural menopause. In the artificial menopause some of the nervous symptoms were apparently ameliorated. He concludes that no definite or exact reliance can be placed upon ovarian extract, as it often proves valueless even when positively indicated. This would seem to throw some doubt upon the supposed value of the internal secretion of the ovary.

The transplantation of the ovary has been shown to be possible, and pregnancy has followed in a small number of cases. Nicholson (*Medical Bulletin of the U. of P.*) maintains that transplantation has some effect upon preventing certain degenerations of the female genital organs. The large bulk of evidence tends to show that the whole or a part of an ovary should be left in all operations in women under thirty-five years of age. If the ovary cannot be left in its normal position, then it should be transplanted.

Another drug which may prove to be useful is silver, especially in its new forms as introduced by Credé. As an antiseptic it has the great advantage of being powerful in its action and, at the

sante time, perfectly harmless to the system of the patient. The allotropic form of silver known as collargolum is claimed to have many advantages over the other soluble preparations. It is soluble in water in the proportion of 1 to 25, does not coagulate albumin and remains in solution in the blood. The solution cannot be boiled without decomposition. For intravenous injections (King) 5 to 15 grains may be used in a one-half of one per cent. solution. If one per cent. of albumin is added to the solution, it is much more stable and may be kept for a considerable time. It should not be injected intravenously. Credé claims the most remarkable results from the use of this drug in various septic conditions, particularly in puerperal sepsis. It is a preparation which may be freely used, for as yet no bad results have followed it, and it seems to offer a chance for successfully combating this otherwise uncontrollable malady.

In the form of Credé's ointment the drug has also been used in a large number of infections, and some striking results have been reported from its application in various gonorrheal inflammations. It should be rubbed in in the same way as the mercurial ointments, and used in considerable quantities. In one case of gonorrheal synovitis, pelvic peritonitis and endocarditis seen by the writer it seemed to render most efficient and almost marvelous service.

The Germans have recently introduced a new method of treating the interior of the uterus, particularly for the prevention of hemorrhage. The agent used is live steam. Pincus, the originator of atmokausis, introduces the steam directly into the uterus after full preliminary dilatation. The application is made for varying lengths of time, according to the case—from 15 to 20 seconds being the average duration. Unless very great care is taken, the action may be so deep as to cause entire obliteration of the uterine cavity. Stöckel reports a case in a girl, 14 years old, a subject of hemophilia, whose life was undoubtedly saved by the treatment, but the uterine cavity was entirely obliterated. Stöckel claims that it is of not much use in the case of fibroids, if the uterine cavity is large, as the steam may not reach the entire surface. Simpson used the steam in fourteen cases, continuing it for from 40 to 90 seconds, the patients being anesthetized. Eleven out of 14 cases of hemorrhage were cured, and no complications were observed. The method has not made much headway in this country, as it would seem to have certain elements of danger. Like the applications of nitric acid to the endometrium, so much in vogue twenty years ago, it will undoubtedly have a very short period of usefulness. On the other hand, Pincus affirms that no surgeon is justified in removing the uterus in cases of uncomplicated climacteric bleeding in which curettement has failed until atmokausis has been tried. He also recommends it in menorrhagia with subinvolution, because of its marked effect in reducing the size of the uterus. Koslenco, as the result of extended experiments upon dogs, claims that, by controlling the steam pressure and the duration of the exposure, any desired effect could be obtained, from slight cauterization to obliteration of the cav-

ity. It has been very little used in this country, and the writer has had no personal experience.

When we come to the matter of operations, there is very little that is positively new. That the operations for prolapse of the uterus hitherto used have not been entirely satisfactory is evident from the great number of new operations which have lately been suggested. Two methods of treating this affection have been used. One has to do with the supports of the uterus, and the other involves the uterus itself. In the first class, the operations of Sims and Emmet have never been greatly improved, and they find many advocates to-day. The weak point of all the plastic operations for the relief of this affection is that they do not change the axis of the uterus. After pushing the uterus back into the pelvis, a condition of retroversion still remains and, unless this be corrected, the uterus, acting as a wedge, will soon pry apart the vaginal walls and come down as before. To obviate this many plans have been suggested. Edebohls prefers an operation which he calls "columnizing the vagina." Others have advised ventral fixation (not suspension); while a third party advises vaginal fixation of the uterus.

The operation for ventral fixation by which the uterus is fastened into, and not upon, the abdominal wall seems to have the effect of absolute cure, but it is only applicable to women who cannot bear any more children, either through age or removal of the appendages. The same should be said of the operations for vaginal fixation. The idea of suspending the uterus by the round ligaments in prolapse has been shown to be absolutely fallacious, but Alexander's operation, as an adjuvant to the plastic operations, especially in young women, serves a very useful purpose in that it anteverts the organ.

Perhaps more ingenuity has been exercised on operations for backward displacements of the uterus than for anything else. The original Alexander operation still holds its own and has a large and increasing number of advocates. In cases not suitable for the Alexander operation, in which there are numerous adhesions or disease of the appendages, the question still remains as to whether shortening of the ligaments internally or ventral suspension is the better. Each method has its advocates. The methods of shortening the round ligaments are almost innumerable, and almost every month brings a new one. The latest suggestion is that of Baldy; who cuts the round ligaments close to the uterus, passes the ends through the broad ligament, and sews them to the posterior surface of the uterus. This operation seems to have the desired effect, but it hardly has any advantages over the operation of resecting the round ligament in front and uniting the ends, or of folding the ligaments upon themselves in one of the various ways suggested. It is hardly probable that any one operation will ever be universally adopted, as the various operators have their own ideas as to how the result can best be obtained.

Of late a great deal of attention has been given to the treatment of cancer. The question as to when and how the uterus should be removed is still un-

settled, various methods having been advocated. The tendency seems to be strongly against the vaginal removal of the uterus for cancer, except in a very limited number of cases, it being generally restricted to the very earliest cases of cancer of the portio or to cancer of the fundus. The tendency seems to be also to restrict the operation to cases in which the disease has not made any extended inroads. Even in selected cases the results are very unsatisfactory. Baldy claims that not more than 5 per cent. of cases of cancer of the cervix are cured. Other authorities give a higher percentage; but all agree that the proportion of cases absolutely cured is very small. Many operators now refuse to operate on cases in which the broad ligaments or the vaginal walls are involved, as they find by experience that in such cases the return of the disease is almost always certain and rapid. Until we find out the cause of cancer and a suitable method of cure, surgery must remain our only resource; but the results are not encouraging and leave very much to be hoped for. Unquestionably the best prognosis is to be found in cases of cancer of the fundus. A large percentage of these cases, even when the disease has existed for some time, is permanently cured.

A careful study of recent literature shows that the widest discrepancy in regard to methods and results, both immediate and late, exists. We can hardly claim, therefore, that any great and real advance has been made within the last few years.

In operations for the appendages, as well as for the removal of different tumors, a new method of hemostasis has recently been employed. Instead of tying the vessels they have been crushed by the angiotribe, a very powerful crushing instrument, it being claimed that after the use of this method no ligatures need be used. As yet comparatively few operators have adopted the method. Some, after using it for a while, have discarded it, while others have used the angiotribe and followed it by ligature. This would in itself seem to show that the method is unreliable. Still, it has many firm advocates, but must, as yet, be considered on trial. Should it prove to be all that its advocates claim for it, it would certainly be a great advance.

In the treatment of fibroid tumors very little that is really valuable has been advanced. Minor modifications of technique have recently been proposed—some of them of great value, but none of them containing any new principle. The plan advocated by Kelly, of splitting the uterus in difficult cases, makes certain operations much easier. Doyen's plan of getting at the cervix through the posterior cul-de-sac may be of use in a limited number of cases. In the main, the old plan of tying or clamping the broad ligaments, removing the tumor, securing the vessels and closing the peritoneal wound has not been materially improved upon. The fact that the uterine fibroids are not so innocuous as has been generally supposed has been very extensively dwelt upon of late. It has been shown that malignant degeneration not infrequently occurs, and that various accidents may happen in perfectly simple cases—accidents like twisting of the pedicle, gangrene of the tumor, cystic degeneration, edema, ab-

scesses, any one of which changes may cause a fatal termination. The treatment of fibroids by thyroid extract, already alluded to, may save the necessity of operation in a certain number of cases, but as yet no method has been brought forward which promises so certain, safe and satisfactory results as total removal. Myomectomy, while it is advocated by a few, has the very grave objection that it may be followed by recurrence of the growths. In nearly all cases of fibroids the tumors are multiple, and, although we may remove the larger and more evident tumors, we shall be almost certain to leave a number of small ones which will ultimately make trouble. The results would seem to show that the operation has greater risks than hysterectomy. Electricity in the treatment of this affection has been nearly given up.

In diseases of the bladder a considerable advance has been made. It has been recently pointed out that cystitis of a mild grade, instead of being a rare, is an exceedingly common affection. It has been shown to be due in about half the cases to infection with the bacillus coli communis. Other infections have been found, but only in a limited number of cases. In some instances the contents of the bladder were found to be perfectly sterile, but the urine to be excessively acid, this apparently accounting for the irritable and inflamed state of the lining membrane. These discoveries reduce the treatment almost to a certainty. In the *Transactions of the American Gynecological Society* for 1901 were two articles on removal of the bladder. The first, by Dr. Bovée, of Washington, gave the history of the operation and reviewed the results in one hundred cases. The other paper, by the present writer, reported two cases in which the bladder was removed for malignant disease. Both patients recovered from the operation, but died of a relapse within a few months. It is proposed in these cases, after the removal of the bladder, to allow the ureters to empty directly into the vagina, and then by the closure of the vagina to use this as a receptacle for the urine. The abdominal method was used in both cases. In a recent case the attempt has been made to remove the bladder through the vagina, but the operator reported that it was not very successful.

The operation would seem to offer a prospect of relief in cases of cancer of the bladder and also in some cases in which cancer of the cervix has spread into the bladder, but without involving other surrounding tissues. In the latter instance the uterus and bladder can be removed together.

Diseases of the rectum have hardly been considered as gynecological affections; but gynecologists have so far widened their field of late as to include them. The treatment of cancer of the rectum has always been unsatisfactory. According to the older methods, in many cases the seat of the disease could not be readily reached. That this is true is shown by the fact that within the last year four new methods of operating on cancer of the rectum have been proposed in this country alone. The suggestions come from Murphy, Weir, Edebohl and Mann. The fact that the rectum could be easily reached by opening the abdomen, with the patient placed in the Trendelenburg position, has until re-

cantly been unrecognized. The operations of Weir, Edebohls and Mann are all based on this fact. Edebohls removes the uterus in order to get room, and then resects, while Mann, after separating the rectum below the growth and above, thus removing the cancer, unites the ends with a Murphy button.

In regard to the treatment of suppuration in the pelvis there is little new to offer. There are still many men, of many minds as to the best method of attacking certain cases. The discussion regarding the abdominal and the vaginal routes still continues, and each has its strong advocates. There certainly are forcible arguments in favor of both methods. It is probable that the personal equation will always enter into the decision, and that a definite and fixed technique will never be acquired. One fact has been pretty clearly demonstrated, and that is that, when suppuration follows labor and is, therefore, likely to be due to one of the more infectious germs, like the streptococcus, it should never be opened through the abdomen, but always attacked from below. The spreading of infectious streptococcus pus in the abdomen is almost certain to end fatally.

There are still many points of procedure which are unsettled. The matter of drainage, for instance, is still in doubt—some advocating drainage through the abdomen, others through the vagina, and still others omitting it in the vast majority of cases. The personal experience of the writer would lead him to believe that drainage can be done away with in a very large proportion of cases—that it need not be used in more than 4 or 5 per cent. of abdominal sections, taken as a whole.

What the future of gynecology will be no one can tell. It has been made by the work of a comparatively few. The results of their labors are now common property, and whether in the future there will be gynecological specialists, or whether the work will be divided among the general surgeons, is yet undecided. It seems as if surgery of the abdomen as a whole might very properly be left to those who devote the most of their time to it; but the general surgeons will scarcely be willing to allow this to occur. The changes which are taking place in the profession are rapid and will probably work themselves out to a firm and stable basis. In the meantime we can only await the trend of events and try and guide them in what we deem to be the right direction.

THE TREATMENT OF PLACENTA PREVIA. IS CESAREAN SECTION JUSTIFIABLE?*

By ROBERT A. MURRAY, M. D.,
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The introduction of aseptic and antiseptic surgery and its efficient application to midwifery has relegated to the past the statistics of the classic authors, and these are no longer safe guides in determining the treatment of the complications of pregnancy, labor and the puerperal state. Abdominal surgery has progressed so that operations, formerly showing in the most skilled hands a mortality of 50 per cent. and over, now are performed con-

stantly with an average mortality of 5 to 20 per cent.

A strong tendency has developed to perform severe operations, when a more thorough knowledge would teach that simpler methods are sufficient.

I intend, in a short review of the treatment of placenta previa, to show the results obtained by different methods and the conditions, if any, under which Cesarean section is justifiable.

Mr. Lawson Tait, in the July number of the *Medical Record*, 1899, in an article on "Unavoidable Hemorrhage," gave a powerful stimulus to the abdominal surgeon to resort to Cesarean section in the treatment of placenta previa. His arguments, however, lose force when we consider that his statistics were those of a pre-aseptic period and his personal experience that of a consultant who had poor results from seeing his cases late, after prolonged and ineffectual treatment.

Placenta previa may be studied clinically as complete or total and partial.

In the first instance the egress of the fetus from the uterus is completely blocked by the implantation of the placenta over the cervix; in the second variety the cervix is but partially closed, or but a small and easily detachable portion of the placenta is over the cervix and slight dilatation causes the cervix to be freed on one side and the labor may then be natural.

Placenta previa occurs about once in 600 to 1,200 pregnancies, according to different statistics. It is 5 to 6 times more frequent in pluriparæ than in primiparæ.

The great danger is hemorrhage—caused by the contraction of the uterus tearing off part of the placenta, by dilatation of the cervix and, probably in the early cases, by the unequal growth of the upper, or fundal, and the lower, or cervical, zones of the uterus. The hemorrhage is called unavoidable, and occurs at the time of pains, and often without obvious causes, differing from accidental hemorrhage. Placenta previa is a frequent cause of abortion in the early months of pregnancy.

Spiegelberg remarks that often premature labor is the cause of hemorrhage in placenta previa, and not the hemorrhage as usually considered a cause of labor prematurely.

As hemorrhage is the great danger, the object of treatment should be the delivery of the woman with little risk to her life, and the saving of fetal life.

In the early months of pregnancy, if hemorrhage appears, a careful examination should be made to determine, if possible, whether the placenta is previa; if such a condition is found present, the cervix should be dilated and the uterus emptied under proper aseptic precautions.

I advocated such procedure fifteen years ago in a paper read before the Obstetrical Society of New York; and Hofmeier and Lömer have had brilliant results from such treatment. When the period approaches and the fetus is visible, if hemorrhage comes on—and all authorities are agreed that hemorrhage and difficulties in delivery are increased the nearer full term the patient is—should we temporize till the child is viable, or should we empty the uterus to prevent subsequent trouble? If the hemorrhage

*Read before the American Gynecological Society, at Atlantic City, N. J., May, 1902.

is severe and the condition can be diagnosed thoroughly, if the patient is exsanguinated, or the heart-sounds of the child become feeble, the vagina should be properly tamponed to allow of restoring the strength of the woman and to stop the hemorrhage; then, with the cervix dilated, the uterus can be emptied and washed out aseptically.

If the hemorrhage be slight and the child nearly viable, or after the seventh month, the tampon of cotton and careful watching may be all that is necessary till the condition of the mother improves, when premature labor may be instituted without danger to woman or child. At or near full term the measures to prevent danger from hemorrhage consist in the tampon of gauze or cotton, properly applied, the pelvis being thoroughly packed, a binder applied to the abdomen and a tight pad to the vulva. This allows time for the cervix to dilate sufficiently and for the mother to recuperate after the hemorrhage.

When the tampon is taken out in the course of twelve hours or sooner, if ineffectual, the cervix may be plugged with a Barnes dilating bag or a colpeurynter, to dilate the upper vagina, or the bags of Champétier de Ribes may be inserted into the cervix and on the dilating of the cervix a decision may be made as to the extent of the attachment of the placenta, when, if only partial, it may be detached from one side and, by bipolar version of Braxton Hicks, we succeed in grasping a foot, rupturing the membranes and, by bringing down the presenting foot, we plug the cervix, thus stopping the hemorrhage. The labor can then proceed normally; or, if the cervix be easily dilated, extraction may be done quickly, care being taken not to tear the cervix. On delivery of the placenta, aseptic douches are given to prevent sepsis, which is more liable from the position of the placental site, from the loss of blood and from the manipulations.

Simpson's method of treatment is only applicable to few cases of central or total implantation and causes a very large fetal mortality. It proceeds on the basis that, when the placenta is absolutely detached, so that the cervix can dilate fully, hemorrhage is arrested; and, the bag of waters being ruptured, the contractions of the uterus press the presenting part of the fetus on the retracted and dilated cervix.

This method was a great improvement over Rigby's method of perforating the placenta and delivering, but the fetal mortality was 80 per cent.

Barnes' operation is based on the fact that the lower zone of the uterus and the cervix were dilated to a point called the zone of safety, when, the placenta having been detached so as to admit of the passage of the child's head, hemorrhage was arrested by the pressure of the presenting part. He contended that the cases in which Simpson's operation of detachment of the placenta by the finger was successful in saving the child, were cases in which only a part of the placenta was detached, as in his method. His operation consisted in the introduction of the finger into the cervix and sweeping it around so as to detach the placenta to the size that the cervix should be dilated in order to allow the child to pass.

The introduction of his rubber bags completely to fill the cervix when dilated with sterile water, and

the replacement of one by another till the cervix was fully dilated, tends to check the hemorrhage. Dilation of the cervix proceeds, and the waters being retained, version can be easily performed and extraction effected without loss of blood.

By this method a much larger percentage of children and mothers were saved. Puzos advocated the rupture of the membranes to restrain hemorrhage in placenta previa, and this method is of value mostly in lateral implantation, permitting uterine contraction to compress the placental site, thus arresting hemorrhage, but making version difficult, if not impossible, and since in placenta previa the presentation is apt to be abnormal, the child was often sacrificed and the mother perished of exhaustion or sepsis.

The modern method of Murphy, or what the Germans attribute to Treub, is a combination of all these methods in a premature delivery, elective, as far as possible, after the first hemorrhage, or absolutely indicated when hemorrhage has been severe. The gauze or cotton tampon is only used when time has to be gained to rally the woman from collapse after hemorrhage, or to aid in dilating the cervix and at the same time control bleeding, and only under the strictest aseptic precautions. The method is to dilate with the finger, then Braun's or Barnes' bags are introduced till the cervix is dilated to such an extent that the placenta can be torn from the side least attached, and a bipolar version is done, followed by extraction, if necessary, the cervix being dilated slowly or forcibly, as the exigency of the case may demand.

It is noticeable that in placenta centralis it is frequent that the cervix is softened and dilatable with the finger after a hemorrhage, and the introduction of Barnes's dilator or *accouchement forcé*, if necessary, can be done without much difficulty. Strict asepsis or antisepsis should be carefully followed and the surgeon should have competent assistants, and not leave his patient till the uterus has been thoroughly cleansed and contracted by hot intra-uterine irrigation. If much blood has been lost, the use of hot saline enemata, dermatoclysis or even transfusion may be indicated, as after severe hemorrhage in other surgical procedures.

What have been the results of this method? Hofmeier, in 37 cases, lost but one, while Budin did not have a single patient die of 40 cases.

Treub reports, in 1899, 125 cases—central, 53; lateral, 64; marginal, 8; maternal mortality 8 per cent., infantile mortality 64 per cent. Treatment was by bipolar version, with rapid or slow extraction.

Treub, in 1899, again reported 44 cases, 15 central, 27 lateral and 2 marginal. In 9 cases of rapid extraction all recovered; in 31 cases treated by Braxton-Hicks' method of version, the maternal mortality was 6 to 13 per cent., the infantile mortality 12 to 33 per cent.

Seebert, in 1900, reported 24 cases; mortality, maternal 8 per cent., infantile 33 per cent. Treatment, manual dilatation and bipolar version.

C. Ringstett, Copenhagen, in 1901, reported 163 cases treated by version. Champétier bag and bipolar version; mortality 15 per cent.

Hantel reported, in 1901, 123 cases; version bipolar; mortality, maternal 9.7 per cent., 27 children dead.

In Horchman's 5 cases, treated by dilatation and version, 100 per cent. recovered.

Fourrier reports 7 cases. Elective accouchement. All mothers recovered and 4 children.

Meade, in 112 cases with version and slow extraction, had a maternal mortality of 15 per cent.

Fry, of Washington, July, 1899, reported 45 cases; 9 delivered by bipolar version, one natural, after rupture of the membranes; one tampon and natural delivery; 4 forceps, one after bipolar version; 45 mothers recovered; 5 infants alive; 2 twins not viable; 4 dead after operation, 3 during delivery; mortality 33 per cent.

By personal communication with Dr. Marx, of New York,—20 cases of central placenta previa—maternal mortality *nil*, infantile mortality 20 per cent., but some of the children were dead before operation. In partial placenta previa maternal mortality was *nil*. Treatment: Dilatation, usually manual, bipolar version and rapid or slow extraction, as case demanded.

Grandin reports 15 cases; maternal mortality *nil*, fetal about 40 per cent., but most of the children were dead or not viable at the time of operation.

I can report 15 cases of central and 50 of partial placenta previa; no mortality for mothers; about 30 per cent. of children dead, of the dead children 5 in the complete implantation; 3 were dead when called to the cases. Of the partial, no maternal mortality.

G. M. Boyd states that, if the child is viable, the previa being complete or partial, the cervix rigid, or the fetus transverse, then in preference to other interferences the Cesarean section would seem to be indicated.

E. Gustave Zinke, of Cincinnati, Ohio, in a paper, "Is Cesarean Section Justifiable in Placenta Previa?" read at the meeting of the Association of Obstetricians and Gynecologists, states:

"I firmly believe that Cesarean section is a perfectly legitimate and elective operation in all cases of placenta previa, central or complete, and especially so when the patient is a primipara, when the os is closed and the cervix rigid, when hemorrhage is profuse and cannot be controlled by tampons, and when separation of the placenta around the internal os is difficult or impossible. That there are cases of partial previa that may be successfully treated in the old way I do not doubt. Perhaps a small majority of all the cases of placenta previa can be treated successfully by the method of Fry and Dr. Lee. But what of the large minority of mothers that succumb, and the great majority of children that are sacrificed at once?"

The paper was discussed pro and con—by Dr. Wm. Gillette, of Toledo; Dr. J. H. Carstens and Dr. Edward J. Ill, of Newark, and by others; and the conclusion was reached by most that only the bad cases, or those which caused the hedging around of the operation by the author, should be treated by Cesarean section.

If we now look at the results of Cesarean section in general, we find in modern aseptic treatment,

when the cases have been elective, and in most cases from deformity of the pelvis, that about 10 per cent. of the mothers have been lost in the hands of the most expert obstetricians and abdominal surgeons. Of the cases in which labor has lasted for some time, examinations having been frequently made, the mortality has ranged from 25 to 50 per cent. Robert P. Harris states that, of 13 cases in which the operation was done before labor had begun, 10 women recovered and 13 children were saved. Six cases, elective and operated on at the beginning of labor, were all saved, as were also the children.

Twelve cases in which the woman had been in labor six hours or less resulted in 10 maternal recoveries and 11 living children. Of 18 cases in which the women had been in labor for from seven to twelve hours, 8 recovered and 15 children were saved, a mortality of 55 per cent. for mothers and 33 per cent. for children. If the statistics of operators in private practice could be obtained, where trained assistants and the thorough aseptic methods in abdominal surgery of large hospitals were conspicuous by their absence, the results would be still more serious. Considering the conditions surrounding placenta previa and the fact that it very seldom is diagnosed till hemorrhage, more or less severe, demands interference, examinations need be made, tampons at least temporarily used when asepsis is difficult on account of the urgency of the symptoms. The patient weakened by the hemorrhage has to recover often from collapse. No preparation has been made of the patient, of the room, nor can assistants trained in abdominal work be readily obtained, and the difficulties surrounding the cases are far greater than in the case of deformed pelvis demanding resort to Cesarean section. The mortality in these cases would undoubtedly be far higher than in the ordinary Cesarean operation.

If the plea be made that many more children would be saved by Cesarean section than by the ordinary modern treatment of placenta previa, I should answer that this has still to be proved.

The child is weakened by the shock and hemorrhage that the mother sustains, and its chances for life are very greatly diminished, even more than they would be in ordinary Cesarean section.

I should, therefore, conclude that Cesarean section would only be justifiable in placenta previa when previous difficult labors and deformity of the pelvis render it impossible to deliver the patient *per vias naturales* rapidly, did necessity demand, and without great risk to the mother. It is not justifiable in the ordinary cases of placenta previa and is absolutely contra-indicated when there has been severe bleeding, or in cases in which frequent examinations and manipulations have in all probability infected the patient. When the labor has been prolonged, the mortality of Cesarean section is very much greater than of the ordinary treatment. If the child be dead or very much weakened, Cesarean section is also contra-indicated.

Trained assistants and aseptic treatment being absolutely necessary to success in abdominal surgery, and as these can seldom be obtained, Cesarean section as a treatment for placenta previa will be limited to the obstetrical clinic and to instances

in which, from examinations before labor, the conditions of the pelvis and of the uterus are determined before hemorrhage or labor comes on.

SUPPURATIVE TUBAL AND OVARIAN DISEASE.

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of Philadelphia.

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I want to say at once that this paper is written entirely on practical experience among the lower classes in a large city; this point should be understood, as the etiological factors differ as to the locality and class of patients concerning whom such a paper is written.

The ignorant dirty poor with entire disregard to personal cleanliness and common principles of sanitation, although not so susceptible to the various kinds of infection, allow them to progress further than the better classes.

Again the prevalence and lack of early and proper treatment in gonorrhea, and their going to work soon after confinement or a miscarriage and the nonclosure of perineal tears, all tend to increase the probability of the infections creating its maximum of damage. I have tried to be as accurate as possible in giving the histories and symptoms and in expressing the local conditions as felt by me in the bimanual examination. The treatment is taken from experience in private hospital work and I have drawn largely upon the material of Dr. Joseph Price; the results obtained justify me in speaking with the fullest confidence as to the preparatory and after-treatment and as to the operative technique. I am aware that this paper is far from complete, as the subject is a large one not easily handled, but I trust the principal points of interest have been gone over.

So much has been accomplished in the last few years by abdominal surgery, that I have written a few lines on the work done by some of the early operators. The history of ovariectomy and the surgical treatment of suppurative disease of the tubes and ovaries is one of extreme interest, as there is probably no one surgical procedure which has attained such brilliant results and has withstood such criticism and censure; as late as 1843 Diffenbach wrote, "that ovariectomy was murder and that everyone who performed it should be put in the dock." Forty years later Nussbaum writes, "We save lives with it by the hundred and the omission of its performance in a proper case would in these days be looked upon as culpable negligence."

It has been a subject of much dispute as to who performed the first ovariectomy, but, certainly, in this country the honor belongs to Ephraim McDowell, a pupil of John Bell, born in Rockbridge Co., Virginia, November 2, 1771, whose operation was performed in December, 1809, the patient surviving thirty-two years. This case, a Mrs. Crawford, thought to be the subject of extra-uterine pregnancy, is the more remarkable when we think that she traveled sixty miles on horseback from her home to Danville, that the operation took place with an angry crowd of men waiting outside to wreck vengeance on the operator, should he prove

unsuccessful, and that this undertaking, the first of its kind, was before the days of anesthesia, perfected instruments and trained assistants. His report of this case tells us that his incision was nine inches long but the tumor was so large that he could not take it away entire; but after placing a ligature around the Fallopian tube, near the uterus, he opened the tumor and took out fifteen pounds of dirty gelatinous substance after which he removed the sac which weighed seven and one-half pounds. He used the long ligature, bringing it out of the lower end of the incision, the whole operation lasting about twenty-five minutes. On his visiting his patient on the fifth day he found her engaged in making up her bed. His account of this case, and two others, was sent to John Bell, in 1817, but he being absent it fell into the hands of John Lizars, of Edinburgh, who was the first to perform McDowell's operation in Great Britain.

McDowell has been given the credit of performing the first successful Cesarean section in this country, and it was he who operated upon James K. Polk, who afterward became President, for vesical calculus in 1812. The claims for Houstoun, of Glasgow, of being the first ovariectomist, in 1701, are not sustained by facts, as his description of the operation does not convey the idea that the ovary was removed at all, the procedure being merely an incision for the relief of dropsy; after drawing out the gelatinous fluid with a fir splinter wrapped with lint he squeezed out all the fluid he could and stitched up the incision, placing a tent at the lower end. He says no word about removing the tumor. He it was, who, in 1722, purposed to operate during the life of the patient in extra-uterine pregnancy.

In 1821, Nathan Smith, of New Haven, operated successfully; Lizars made his first attempt in 1823, but no tumor was found, and again in 1825, when his first ovariectomy was performed. Dr. Granville, of London, operated in 1826, but the procedure was not completed on account of adhesions, his second case in the following year turned out to be a uterine tumor. The first successful ovariectomy in England was in 1836, Mr. William Jeaffreson being the operator. Dr. Charles Clay, of Manchester, saved three out of four patients in 1842, and up to 1866 had operated 137 times with 95 recoveries. The publication by Dr. Washington L. Atlee of his first thirty cases gave impulse to the operation which was beginning to become popular. To T. Spencer Wells much credit is due, as he also popularized the operation and gave details of ovariectomy, some of which are used unchanged today; this was after he had discarded the clamp for the ligature in 1873. The pathology of pelvic abscess was greatly advanced by Bernutz and Guopil in their classical memoirs on the diseases of women published in 1868; also by Lawson Tait, who gives a most interesting account of his first ovariectomy for abscess, whose operation was performed February 11, 1872, for "intense pain," the mass was found to be a chronic abscess of the left ovary; he also removed both appendages in August of the same year for menstrual hemorrhage. Professor Hegar, of Freiburg, also removed both ovaries in July, 1872, with a fatal result, and Batty, of Rome, Georgia, operated August 17,

same year, "to relieve a patient suffering from severe and complicated symptoms."

The first ovariectomy in France was performed by Dr. Woyerkonsky on April 29, 1844, and in Germany by Dr. Chrysmar, of Württemberg, in May, 1817, whose case was successful.

The names of Baker, Brown, Keith, E. R. Peaslee and Ashton Key are all closely associated with early ovariectomy. The mortality of the pioneers ranged from 15 to 60%, now it varies from 2%, in the work of some few operators, to 15%. It is evident from these facts that to an American Surgeon belongs the honor of being the first ovariectomist and is certainly the one who should be given the title of "The father of ovariectomy." Taking the four principal indications for ovariectomy, cyst, abscess, pain and fibroid disease, it would probably be correct to say McDowell for cyst, Tait for abscess, although his operation was the relief of pain, Hegar for neuralgia and Batty to bring on premature menopause for fibroid disease.

In regard to the etiology of these pus collections it is hard to state the relative frequency of the many possible causes. We should keep in mind, however, that almost invariably the focus of infection starts from without, the natural passage is through the uterus and along the tubes where happily it frequently stops, as the fimbriated extremity inverts and becomes glued up, shutting off the peritoneal cavity. Quite frequently, however, this is accomplished only after the ovary has become implicated; one strong argument demonstrating that ovarian abscess is almost always secondary to tubal infection: when this infection is septic in origin, the result is in the majority of cases a pyosalpinx. By far the most common cause, at least among the poorer classes, is gonorrhea; of all cases presenting themselves for treatment at the Philadelphia Dispensary, I should say twelve per cent (12%) were suffering from the primary or remote results of the gonorrheal virus and that seventy-five to ninety per cent. of the class of cases under discussion have their starting point in a gonorrheal infection. I am aware of the fact that every yellow leukorrhea accompanied by dysuria is not necessarily caused by the gonococcus, yet I have found it present so often, not only in the vagina, but after operation, in the pus from the tubes that I am led to believe that it is a cause of appalling frequency. Often it takes repeated examinations to find the gonococcus in the pus from the vagina, and after reaching the tubes it may create all its mischief and then disappear, so it is possible that many of the cases were gonorrheal in which the examination was negative.

Poorly handled uncleaned labors, abortions and dirty fingers, sounds and pessaries are causes of frequency, as is meddling minor gynecology. In those women who have lacerated perineums with a vaginal respiration the deposit of septic material and the absorption of the same by the lymphatics is an etiological factor of importance.

Strong irritating douches following labor are at times responsible for suppuration in the appendages as is retained placenta after, and use of instruments during, confinement.

In virgins perhaps the commonest cause of suppurative tubal and ovarian disease is tubular in origin; in these cases the menstruation is apt to be profuse, irregular, at intervals of two or three weeks, and attended with a moderate degree of pain.

The symptoms complained of by these cases are many and varied, especially is this true of pain which differs much as to the duration and intensity, some women, who have large pus tubes, not having the slightest discomfort, while others, in whom on operation only a drop or two of pus is found in the tubes, give us a history of constant and agonizing pelvic pain. We usually find the woman has had one or more attacks of pelvic inflammation which is described as "inflammation of the bowels" when she has sharp pelvic pain, fever, sweating, rigors, at times fainting spells and accompanied by more or less shock.

These symptoms at once suggest some pelvic suppuration and are caused by leakage from an imperfectly closed or ruptured fimbriated tubal extremity. These attacks, one or many, will be found to have followed soon or late after a yellow leukorrhea accompanied by dysuria; a prolonged or difficult labor, during convalescence or soon after typhoid fever, a miscarriage, a cold caught while menstruating or some minor gynecological operation. They have had one or more children, but give a history of sterility for the past two to ten years; by no means is this sterility present in all cases, as one common cause is sepsis following labor, yet it is of frequent enough occurrence to make us at once suspicious of some tubal mischief.

The women who have never become pregnant are usually those who a few weeks or months after marriage have been infected with gonorrhea, the invasion being either acute, when it reaches the tubes in a surprisingly short time and causes an abscess or is of a more chronic type, when after a varying period of time the tubes become occluded, strictures form and soon after the tubes and ovaries will be bound down by adhesions, not only causing sterility but making the woman a chronic invalid. I believe that when the infection is mild in character, if we can speak of gonorrhea as ever being mild as to its ultimate results, that there is at no time suppuration, but a subacute inflammation follows which binds down the appendages, causing a tremendous amount of suffering to the woman.

Menstruation is usually irregular, painful and profuse. Of the many women who have accompanying uterine disease some few will feel better while menstruating, the establishment of the flow lessening congestion and tension in the pelvic vessels.

The change in character of the menstruation, whether as to the time or quantity, and dysmenorrhea coming on in a woman who has previously menstruated painlessly, are symptoms of much value in early tubal or ovarian disease, more especially is this true of gonorrheal infection. Backache, headache, dragging sensation within the pelvis and pelvic pain are almost constant symptoms, the latter being increased by jarring as stepping over a gutter, onto a car, etc., by vaginal injections, coitus and by any violent exertion. Its location is in one or both ovarian regions, the pain being at times on one side,

the disease on the other, although bilateral pain is far more common, and is of a stabbing, throbbing character which shoots down the inside of the thighs and through to the back. As I have already said, the suffering differs much as to its intensity, and no one kind of pain can be applied to these cases, some have different kinds at different times, some seem to have all kinds at the same time. Almost all show evidence of their trouble by a more or less profuse leukorrhea and some give the history of discharge of pus by the vagina or bowel, followed by a temporary relief of symptoms. The picture of a woman suffering with a large pyosalpinx or ovarian abscess is one not easily forgotten, as she shows every evidence of intense and constant suffering and often shows her wretched state in extreme exhaustion and emaciation, increased in many cases by the habitual use of morphine for the relief of pain. She is unable to stay up any length of time on account of intense pelvic discomfort and, when up, her stooped, halting walk, anxious face and sweating brow should with the history given above make us suspect pelvic abscess.

Our diagnosis must rest upon digital examination, and allow me to give a word of caution as to this procedure. These pus collections are often extremely friable and easily ruptured, especially is this so of ovarian abscess, and if we are not careful, so much force will be needed even to feel the mass bimanually that rupture or at least leakage through the fimbria will be likely to occur.

The woman's clothing should be loosened, especially about the waist, and she should be instructed to breathe easily and not "set her abdominal muscles," as by so doing the examination will be not only more painful for her, but more difficult for yourself.

First, when possible, the uterus should be mapped out and its mobility noted; taking this as our objective point, the presence of lateral or posterior masses should be ascertained. In acute cases they will be found to be elongated, retort-shaped tumors, larger at the outer end, irregular in outline, extending from the uterus, but separated from it by a well-defined sulcus or groove; they are almost invariably exquisitely tender, soft but tense, fluctuation rarely being detected. Where an acute invasion takes place in an old abscess, the induration may prevent our feeling the mass, and the patient, although giving the symptoms of acute pus tubes, on examination will give to the sense of touch the feeling of a chronic suppuration.

An abscess of the ovary is found further away from the uterus, although at times it is closely associated with the uterine body, is round or rather not elongated, higher up in the pelvis and connected to the uterus by a thickened or very much enlarged tube.

Both sides are usually found diseased, one often much more so than the other. The uterus is in most cases retroflexed and bound down by adhesions, although an anesthetic will show that it is always movable to a certain extent.

The vaginal finger will detect many different shapes, positions and relations in these cases;

only when the abdomen is opened can we really know the size, figure and extent of these masses, and even then we may only find old empty pus sacs.

In some cases, those of a chronic type, it is impossible to map out the appendages or even the uterus, the entire pelvic floor being infiltrated and we can only detect a flat or bulging board-like induration of the whole vaginal roof, which is very sensitive to the touch.

The simile that the vaginal fornices feel as if plaster-of-Paris had been poured into them is a good one.

When the mass *can* be palpated, it is found extending from the uterus to the pelvic wall, no sulcus can be detected, but is closely imbedded into the uterus, fixing it in the pelvis. The cervix is frequently pushed or pulled to one side or forward, pressing on the bladder, and immovable. Frequent micturition, dysuria and at times retention of urine is caused by this forward pressure. These are the cases which claimed the adherents of pelvic cellulitis, but the cellular tissue, if involved at all, was not primarily so, but due to the walling of the leakage from the tubes; far more frequently is the peritoneum involved than is the pelvic cellular tissue; at least I believe this to be true in the vast majority of cases. It was on these women that vaginal puncture was most often practised, the very ones which most needed abdominal section, as the cause is almost invariably septic in origin. Remove the pathology by the abdominal route and the cellular tissue infiltration will quickly subside, showing that it was diseased by continuity from the tube or ovary. If those pus collections involved the cellular tissue only, it is hard to understand why they do not rupture spontaneously.

The association of fibroids with pelvic abscess is quite common and the sterility which is often present in these cases may be the predisposing cause of fibroid; we should perhaps reverse this order and allow it to be a strong plea for operative interference in fibroid disease, as the complications are often more dangerous than the tumor itself.

A rectal examination should always be made as we can often map out more clearly the fundus with the mass or masses behind or to either side than by the vagina.

Previous to making this, the bowel should be thoroughly emptied as it should be previous to making all pelvic examinations.

In speaking of the differential diagnosis I have tried to give the most distinct points in each condition, as in many different pelvic diseases we find similar histories and symptoms. I fully realize how difficult it is to make a diagnosis from text-books or papers on any part of the body, and this is especially true of the female pelvis; so I have limited my remarks to a few points which may help in making up our minds by exclusion.

Extra-uterine pregnancy, appendicitis, fixed and tender tubes, small painful ovarian tumors including dermoids, fecal impaction, retroflexion and malignant deposit about the cervix, are probably the most frequent conditions from which we have to differentiate pyosalpinx and ovarian abscess. I only mention hydrosalpinx and hematosalpinx to say that in

all probability the former is an early or late stage of pyosalpinx and the latter in many cases a disintegrated ectopic gestation. Hydro and hematosalpinx do not usually give the history of repeated attacks of pelvic peritonitis, feel softer and are not so sensitive to the touch. In extra-uterine pregnancy there is frequently no pain until rupture occurs, then it is apt to be of an agonizing, griping character accompanied by nausea, vomiting, fainting spells and evidence of extreme shock; when the sac alone ruptures, there may be only a twinge of colic and some slight hemorrhage, the blood collecting within the tube; when this ruptures below the peritoneum, all the symptoms are apt to be mild and the woman with increased bearing down sensations in the pelvis will usually recover after having several recurrent attacks or until rupture takes place within the peritoneal cavity.

Before rupture the mass is felt as a round or oval cystic tumor, very sensitive to the touch and often pulsating. The cervix may or may not be softened, but is often patulous admitting the tip of the finger, the uterus is found pushed to one side by the mass and enlarged, but not in proportion to the duration of pregnancy.

After rupture the appearance of uterine hemorrhage, irregular as to time and quantity, light in color and containing shreds likened to raw meat (which should be examined microscopically for decidual cells), will aid us in arriving at the true condition present, care being taken to exclude an abortion. The amenorrhea, nausea, etc. which are often present will help also, always keeping in mind that there may be no cessation of menstruation, or perhaps only for one period and then normal in appearance and quantity. The like points in the history are the attack of salpingitis and the long period of sterility, both of which are present in tubal and ovarian disease and extra-uterine pregnancy.

The menstrual history in abscess of the appendages with the bimanual examination should exclude appendicitis. Only when the appendix is adherent to the ovary and has suppurated, or a cystic and tender right ovary and a suppurative appendicitis are found co-existing, should there be much difficulty in arriving at a correct diagnosis.

There are some cases in which the diagnosis is by no means so easy as the above remarks imply, as with all our careful history, symptoms and examination it is impossible to say whether the appendix, right tube or ovary is the seat of the pathology.

Fixed and tender tubes and prolapsed ovary are excluded by the absence of an elongated tumor and bulging of Douglas's cul de sac. In fixed tubes the pain is more constant, usually increased by menstruation and is of a dull, dragging character. In prolapsed ovary there is often no menstrual derangement, it is usually left-sided alongside or posterior to the cervix and is felt as an oval or almond-shaped body, often extremely sensitive, which gives a peculiar sickening pain on pressure, is distinct from the uterus which is usually retroverted and movable.

They are, as a rule, painless except during coitus, defecation, vaginal examinations and sudden jars. A rectal examination will greatly aid us in diagnosing prolapsed ovary.

In small ovarian tumors, pelvic in position, the mass is round or rather not elongated and not attended by much pain. History of gonorrhea, abortion or sepsis is rare and on examination are usually found low in the pelvis, hard, and the uterus connected with the tumor by a more or less distinct tubal attachment. They may become inflamed and go on to suppuration when they constitute an ovarian abscess, the infection taking place from without. The diagnosis of dermoids from abscess of the tube or ovary is very difficult, the dermoid being more symmetrical, softer and has not the history of repeated attacks of pelvic peritonitis.

Fecal impaction may be excluded by the absence of pitting on pressure per vaginam, and by the rectal examination.

Retroflexion gives a different history. The fundus is more central, not as a rule sensitive, is hard and may be felt distinctly by the rectum and its absence is noted in front.

Malignancy usually attacks the cervix, bleeds readily to the touch, is hard, nodular or ulcerated, deposit more uniform and gives a history of a slow disease, the offensive discharge, severe shooting pains, especially at night, and is accompanied by anemia and cachexia.

In differentiating pelvic disease we encounter much difficulty on account of the many different conditions giving us like histories and symptoms; what appears to be, on examination, an extra-uterine pregnancy, on operation is found to be a pyosalpinx or even a normal pregnancy. A case, quite typical of this, presented herself with the following history:

Married ten years, one child, nine years old. Menstruating regularly until two months ago, when she missed, had nausea, breast pains, drowsiness and dragging sensations in the pelvis. One week previous to time of examination she was attacked suddenly with intense pelvic pain, accompanied by vomiting and fainting spells, passed several clots and shreds "like raw meat." On examination the vagina was hot, vessels pulsating, cervix soft and the uterus somewhat enlarged, on the right side a cystic, exquisitely tender round mass could be easily felt and what was taken to be the fundus above the middle line. Operation was advised for ectopic gestation; consented after two other gentlemen had examined her. When the abdomen was opened, an intra-uterine pregnancy of about ten weeks' duration was found with the fundus turned toward the right and bound down by old adhesions. The patient recovered.

We should always go carefully into the history, weigh each symptom and make a thorough digital examination, under ether if necessary, and then by exclusion make up our minds as to the most probable condition present. I feel that when we can say "this case should be operated upon" or "this case would not be benefited by operation" that the question of exact diagnosis is one of refinement and of not much practical importance.

The diagnosis of pelvis abscess having been made, the only safe, sure and proper treatment is clearly indicated, and that is purely surgical, complete removal through an abdominal incision. I say safe, sure way in contradistinction to vaginal puncture and drainage, a method falling into disuse by the many disastrous results and miserable failures which the method brought forth.

Anyone, who has seen many sections for suppurative pelvic conditions, cannot help being impressed

with the fallacy and risks attending vaginal puncture. I grant that you can open and drain an abscess cavity through the vagina, but can you open and drain all the abscess cavities which so frequently exist in these cases, when we have a tube the size of a small sweet potato, divided into two or more distinct pockets, which are separated by a stricture of the tube?

These tubes are often situated high up in the pelvis, separated from the roof of the vagina by thick indurated inflammatory deposits, to reach which a puncture would be additionally hazardous, as the risk of puncturing the bowel, ureter or a large pelvic vessel is great.

In front of the uterus the bladder can hardly escape and to either side the danger of injury to a vessel or ureter is considerable, on account of the trocars having to travel through the entire thickness of the broad ligament. If we exclude the rare condition of ovarian abscess from an adherent suppurative appendicitis and still more rare suppuration of an ovarian tumor, abscess of the ovary is seldom found without tubal abscess, as the inflammation almost invariably travels from the uterus to the ovary via the tube.

To puncture this ovary and leave the tube seems to me very poor surgery. Again, small cysts of the ovary are commonly associated with pyosalpinx, especially in the chronic cases, and the cyst may be punctured and drained, leaving the tube untouched. In all probability the few successes following vaginal puncture were in those rare cases of a single cavity ovarian or tubal abscess low down in the pelvis or a localized abscess in the cellular tissue.

After puncture adhesions form, causing additional suffering to the woman and increasing manifold the risk from hemorrhage and shock when an abdominal section is undertaken.

I have seen not a few patients on whom vaginal puncture had been done, and all have been forced by their intense suffering to an abdominal section. To my mind it does not seem rational to leave the pathology, when in the vast majority of cases it is so ideally situated for its complete removal. The argument that no operative interference should be undertaken if the woman has no pain and is fairly comfortable is a poor one, even granting that in about sixty per cent (60%) of these cases the pus is sterile, as the woman is exposed to acute infection at any time, which makes the pus as virulent as the primary septic infection. The preparatory treatment for the operation consists of a thorough bath including careful cleansing of hair. Calomel in $\frac{1}{2}$ grain doses every 20 minutes until five (5) grains have been taken, followed by teaspoonful doses of Rochelle salts until ten or fifteen movements have resulted. Strychnine sulphate gr. 1-30 t. i. d.

The abdomen is cleansed with soap and water, scrubbing lightly with a brush for ten minutes, then carefully shaved and again washed with soap water and mustard for several minutes. Turpentine is applied with the hand rubbing very lightly, followed by alcohol, and a towel wrung out of a 1-2000 mercury solution is placed over the entire abdomen. This process should be repeated on the day of the operation minus the shaving. The removal of these pus collections may be very easy or extremely diffi-

cult, depending largely on the amount and density of adhesions, in fact, at times, mainly in malignant conditions, these adhesions may be so dense and general that the operation must be abandoned as exploratory only.

In making the incision the bladder should be carefully avoided, as it has been opened many times, and it should be ascertained that the patient has passed urine voluntarily, or has been catheterized just previous to being etherized. In dealing with adhesions we first find, always using two fingers, palm surface upward, the fundus uteri which when possible is worked loose and brought forward. This gives us a place of cleavage without danger of injury to bowel, bladder or ureter. Taking the fundus as our objective point we can feel the lateral or posterior masses, which may be either an elongated tortuous tumor, as in pyosalpinx, or a round, friable, tense mass, as in ovarian abscess, which can sometimes be rolled out with the greatest ease. The mass is enucleated from its bed by gentle and persistent effort, frequently they are ruptured in delivering and our aim should be to deliver them intact. The separation of intestinal adhesions demands extreme care, using the fingers, whenever possible, and broken far from the bowel to prevent bleeding, and dealt with according to size. The intestine should be carefully examined after separating these adhesions and any tear immediately closed with fine silk. It is in the chronic cases that we find the denser and more general fixation: in the cases that give a history of several years of sterility and repeated attacks of pelvic peritonitis the adhesion and anchorage of the masses are tremendous, and it is only after long and careful manipulation that these can be broken up and the mass removed, and great care is needed to prevent tearing bladder, bowel or ureter. The pedicle should be tied close to the uterine cornu, care being taken to leave enough stump to prevent slipping; the ordinary surgical knot is best, its construction being more even and certain and it will not slip easily; when tying, allow the ligature to slide off the uterus onto the tube and always carry the ends of the ligature, in other words the end of your thumb, beyond the pedicle as by so doing you lessen the friction in the knot and can tie much tighter and firmer. If it is desired to hold the fundus forward, one or two inches of the round ligament may be included in your ligature. A more thorough procedure, and the one to be used when the uterine end of the tube contains pus, is removing a diamond- or oval-shaped piece from the uterus where the tube joins, and stitching the peritoneum over it with fine silk. Always cut the pedicle cone-shaped, as it retracts from its center, care being taken to remove all of the tube, leaving only enough to prevent the ligature from slipping. Should the woman be found to be pregnant, tie as far from the uterus as possible to prevent metrostaxis. Both sides are removed in the great majority of cases, as the infection is usually bilateral; in some cases in which pus is present in one tube the other will be found the seat of occlusion with retention of fluid; hydrosalpinx. All evidence seems to be in favor of removing both sides and this is especially true of gonorrheal infection. A table, given by Lawson Tate for the removal of the uterine

appendages on account of damage arising from inflammatory disease, includes 181 operations for pyosalpinx; of this number 157 were bilateral, 12 complicated with a hydrosalpinx on the opposite side, 2 with hematosalpinx, 2 with chronic ovaritis and only 8 single. Seven of the 181 had been previously operated upon and one side only removed. Another table of 14 cases of pyosalpinx, in which only one side was removed, shows that 4 died for want of a second operation, which implies the opposite side became infected; and four others required a secondary operation on the other appendage. Dr. Price removes both tubes and ovaries in 98% of pus cases; of 16 cases operated upon by myself both sides were removed in all. Where there is an apparently healthy ovary, it may be left, or, as occurs in some few cases, it is studded with small cysts; after puncturing these and carefully drying, it can be returned to the abdominal cavity. The patient should fully understand that in all probability the bilateral operation will be necessary.

In the cases in which it is found impossible to remove the abscess on account of adhesions it may be opened, its edge stitched to the abdominal wall and drained. While operating, a gauze towel carefully placed will carry up and hold the bowel, doing away with the Trendelenburg position. Irrigation is used in nearly all these cases, in the acute ones on account of leakage and in the chronic on account of the tearing up of adhesions and frequent rupture of the abscess, using plain sterile water. The use of sublimate solution within the abdomen is objectionable on account of its tendency to promote adhesions: it also roughens and hardens the operator's hands, interfering with the sense of touch. In the acute cases it is better always to use drainage, as the pain, tympany, rigors etc. denote leakage: when operating for chronic suppurative diseases, drain, whenever there has been much tearing of adhesions, as oozing usually follows, using a glass drainage tube placed in the most dependent part of the pelvic basin. Drainage cases nearly always do better than those closed as they have less gas distention, less nausea, have cleaner tongues and can take nourishment earlier.

The incision is closed by a through-and-through silkworm suture, a gauze sponge introduced, allowing the peritoneum to "bite" it on either side, will keep the bowel away from your needle in case the patient is retching or vomiting. Always count and recount your sponges and hemostats before closing the incision. The dressing consists of plain sterile gauze, cotton and binder. The post operative treatment in most cases amounts to practically nothing but placing the patient in a previously heated bed, total absence of food for 24 hours and then only teaspoonful doses of hot or cold water. If stimulation is needed, strychnine sulphate gr. 1-30 and digitaline gr. 1-50 will be found effective, given hypodermically every 5 or 6 hours. For the early nausea and intense thirst, water by the bowel may be used with stimulation, ice in most cases only increases the desire for water. Should there be much nausea or vomiting, a flaxseed poultice sprinkled with

mustard may be applied over the epigastrium and the stomach washed out with hot water.

If the bladder has not been emptied at the end of 9 hours the patient should be catheterized, the bowels are opened on the third day by an enema, which can be given earlier if there is much tympany, the addition of turpentine being of service. When drainage has been used the tube is cleansed every $\frac{1}{2}$ hour for 12 hours, then every hour and removed in from 24 to 72 hours depending on the amount of oozing; if used for hemorrhage alone when there has been no leakage of pus, it can usually be taken out in 24 hours or when the amount of fluid is less than $\frac{1}{2}$ dram.

If the patient is doing nicely she is allowed broth and toast on the third day and may suck a bird throwing away the fiber.

Metrostaxis usually occurs on the second or third day, lasting five or six days, and a pseudomenstruation may take place for several months following the operation and is often irregular, but after complete removal of both ovaries and tubes true menstruation rarely takes place. Should the metrostaxis be at all offensive, a boric acid douche may be given.

Opium in any form is absolutely contraindicated, as it increases thirst, makes the patient more restless, and much harder to nurse on account of her constant appeal for more, she loses her mental control over herself and you yours over her.

Opium decreases peristalsis, causing constipation and gas distention, dry tongue and retards the action of salines and enemata; it also increases and prolongs nausea. By giving the patient a placebo with the encouragement that the pain will be relieved, much can be done to tide over the first 48 hours when her strength, mental and physical will usually make unnecessary the use of any drug for pain. I wish especially to emphasize the following points:

1. That gonorrhea is by far the most frequent cause of suppurative tubal and ovarian disease.
2. That vaginal puncture is dangerous and unsurgical.
3. That the mass should always be removed through an abdominal incision.
4. That plain sterile water should be used in all abdominal operations.
5. The use of mercury, permanganate or any antiseptic, except alcohol, is unnecessary in the preparation of the operator or assistants, as cleanliness is the great point and may be obtained by soap, water and brush, using many changes of water and taking many minutes to scrub.
6. That silk should be used in all tying within the abdominal cavity.
7. That an absolute differential diagnosis previous to operation is in the majority of cases impossible.
8. That the cases in which drainage is used usually do better than those not drained.
9. The absolute avoidance of morphine, or any form of opium, before or after operation.
10. That the objections to operations are not founded on fact and that there is not enough consensus of opinion that these suppurative conditions should always be operated upon.

MOVABLE KIDNEY; ITS DIAGNOSIS AND
TREATMENT.*By ROBERT J. REED, M. D.,
of Wheeling, West Virginia.

In reckoning with abdominal pain, the question of kidney displacement should always be taken into account as a possible cause.

In obstinate and recurrent indigestion, particularly intestinal, when the old reliable measures, as well as the modern sure cures, have failed and patient and physician have both grown weary, attention may well be turned to the lumbar regions; possibly there may be discovered a thorn in the flesh in the shape of a wandering kidney which is the etiological factor in the case.

Before pronouncing the sentence "incurable" upon the miserable subject of neurasthenia, whose only comfort has been found in the euphonious and fashionable name given her affliction, or like sentence upon the victim of that nervous state scarcely to be named, its very sound a reproach, hysteria, let it be determined positively that there does not exist a causative agency in a too mobile kidney.

A floating kidney faddist is doubtless the imputation already formulated by many of you against the speaker. He pleads not guilty. There is no disposition to contend that, in the group of morbid conditions enumerated, movable kidney plays a role in a majority of cases. But that it has an influence in a very respectable minority, especially in women, is true; and to an extent that will be surprising to those who heretofore have not given the question close attention, but who in the future will, with open eyes, maintain an abiding interest in the subject.

Trusting that the paper may be followed by a general discussion, resulting in mutual profit, especially in the direction of alertness and accuracy in diagnosis, it has been decided to confine our consideration largely to this very important phase of the subject, diagnosis, devoting a brief time only to the treatment.

All phases of the subject are of interest, pathology, etiology, embracing the question of sex, form, dress, traumatism, as also is the history of the evolution in its surgical treatment, with the countless operative devices designed to secure an enduring anchorage of the offending organ. But such an extended consideration would drag along to a wearying length. Attention, however, must be given to the symptomatology, as it is so intimately and inseparably associated with the question of diagnosis.

The kidneys normally are not fixed organs. With the play of the diaphragm they rise and fall to a distance of one to two inches, and this mobility may be increased considerably without producing noticeable symptoms.

In respect to the subjective effects which are produced by an unnatural mobility, patients differ widely. Prolapsus of mild degree may occasion discomfort directly or indirectly in the way of a reflex effect in one patient, and in another a kidney

may be floating free in a radius of six or eight inches, yet produce few symptoms, and possibly discovered, if at all, in an accidental way.

This singular difference in patients is explained, first, by a difference in temperament, the naturally nervous uttering complaint upon the manifestation of the least discomfort, another, more phlegmatic, may be unobservant and give little heed to the mild symptoms. Again, the manner of dress has its influence. The one, tightly laced and with heavy skirts dragging from the girth, may irritate the prolapsed organ and aggravate the condition; another, loosely gowned, may continue comfortable. Again, the occupation will exert an influence. One whose vocation requires the standing position for many hours a day, possibly with frequent lifting of heavy burdens, may suffer pain, while another with greater displacement, but so situated as to live a life of ease, may remain comparatively free from discomfort; and still other explanations might be given of this striking peculiarity among the sufferers from movable kidney.

But whether the prolapsus be of mild degree, half or two-thirds of the organ falling below the margin of the ribs, or of extreme degree, usually designated floating kidney, it is an abnormal state and will be productive in many instances of annoying symptoms, wide in range and varied in severity.

In not a few of the patients who are fated to suffer from this affliction, the symptoms will be for a long time indefinite and without local manifestation. They will present diversified symptoms, are emaciated, digestion disturbed, often with nausea and vomiting, nutrition impaired, they will suffer with cardiac palpitation, with flatulency that is almost constant, and nervous disturbances from a mild to a very exaggerated type, reaching in occasional instances a condition of great distress. The entire group of symptoms is, in fact, dependent upon, or results from, protracted gastric and intestinal indigestion, due in part to direct pressure upon the duodenum from the displaced kidney, but chiefly to an influence reflected through the sympathetic nervous system.

In the great majority of cases, however, especially when the digestive and neurotic symptoms have reached an aggravated form, there exists a feeling of marked discomfort and usually actual pain. It is dragging in character and is felt in the loin, more frequently by far upon the right side, extending in many cases to the vicinity of the appendix and ovary. It may be reflected also into the groin and down the thigh. The pain is not constant, very reasonably, but disappears and reappears in keeping with the vagaries of the kidney; absent when it is resting in its proper place, and present as it drifts from it. The severity of the pain usually depends upon the degree of displacement as well as upon the length of time extreme prolapsus has existed. Occasionally an attack of pain, excruciating in character, is encountered, simulating renal or hepatic colic. It is the result of the twisting or kinking of the ureter sufficient partially or completely to obstruct the free flow of urine.

Many methods are practised by which the position of the kidney can be positively ascertained.

*Read before the Medical Society of the State of West Virginia, Parkersburg, May 21-23, 1902.

The one which yields to me entire satisfaction is the only one which will here be described. The patient should lie upon the side opposite to that about to be explored. The shoulders thrown forward, the thighs flexed, the flesh bared. The physician should take a position to the rear, placing the tips of the fingers of one hand in the triangular space behind and immediately below the twelfth rib, the fingers of the other hand in front, directly opposite and immediately below the margin of the ribs. The patient should now be instructed to inspire deeply, hold the breath a moment, then let it go quickly. The finger tips of both hands should be thrust in firmly below the ribs rear and front and upon expiration be quickly approximated as nearly as possible.

By this procedure the lower end of the kidney can usually be palpated, when its mobility is but normal. Unless the subject is very fleshy, a small portion is caught between the fingers and, as it retreats with the expiratory act, can be appreciably felt slipping away. If the first effort is unsuccessful, the deep breathing and the manipulation should be repeated again and again. Should the kidney have an unnatural mobility, success in palpating it is more certainly assured, since it descends lower with the inspiratory act, so that half and more of the organ can be felt, consequently recognized more easily. When mobile to a marked degree, the fingers can be approximated above the kidney. The entire organ felt below and, grasping it between the hands, still in a position front and back, can be rolled about as if it were a ball. If the examination is negative in its result, it should be invariably repeated at another time, especially if movable kidney is suspected. Failure may have been due to distended intestines and rigid abdominal muscles. Preceding a repetition of the examination, measures should be taken to overcome the bowel inflation.

After a mass has been discovered in the abdomen in a lateral position and its location and character appear to be such as to occasion strong suspicion of its being a kidney, yet other pathological conditions may exist from which it must be differentiated.

A distended gall-bladder may be excluded by its position nearer the median line of the body; by the fact that it is more superficial, giving the impression, by palpation, of lying close to the abdominal wall; again, its mobility is decidedly more limited than a kidney capable of wandering into the locality of the gall-bladder. The local and constitutional effects of disease of the gall-bladder and ducts are easily distinguished from the results of a movable kidney. Hepatic colic need not be confounded with kidney pain from a kinked ureter. The pain is more lancinating, more continuous, likely to be more protracted, is radiated backward and upward or downward in the direction of the umbilicus, and the pain is relieved only by powerful anodynes. The renal pain, though severe, is not so agonizing as gall-stone colic, is downward along the ureter and may be relieved, if the physician discovers the cause, by simply replacing the kidney.

In the way of systemic influences, in the hepatic affection, there is usually a history of jaundice and

the evil effects arising from obstructed biliary ducts. On the contrary, there is little tendency to the neurasthenic condition which the kidney displacement excites.

Growths benign and malignant may be mistaken for a loose kidney; tumors of the pancreas, of the omentum, of the colon and of the pylorus.

Their mobility is not usually so great, because adhesions are frequent and it is rarely possible to carry them into the normal position of the kidney.

In their early history little tenderness is elicited by palpation, in a later stage they may become quite sensitive from peritoneal involvement and obstructive symptoms may also arise.

Upon palpation of a movable kidney its striking and very natural characteristic is to slip away with great ease under the liver into its normal position. Its smooth surface and distinct outlines are very significant and the hilus can in some cases be felt. There is present as well a certain degree of tenderness, remaining always much the same and presenting that familiar peculiarity which is experienced by pressure upon testicle or ovary.

This particular characteristic should also be remembered in dealing with the condition of fecal impaction in the colon. It does not present the sensitiveness of the kidney and not of the peculiar type just mentioned. It is usually possible also to make some impression upon the fecal mass by palpation, and to the touch a feeling of doughiness is given. Moreover, an efficient laxative or colon flushing should soon clear the diagnosis.

There can be no excuse for mistaking a floating kidney for subacute or chronic appendicitis. On the other hand, the error is not rare of mistaking pain in the right iliac region as of appendiceal origin, when it is in fact a reflex or indirect effect of movable kidney; and many an inoffensive appendix has had its career cut short when the real mischief-maker was wandering about not even suspected, its whereabouts a matter of complete indifference. One should never commit himself to a diagnosis of subacute or chronic appendicitis until it has been positively determined that the kidney is not giving offence. In fact, pain in the region of the appendix, in the absence of a well-marked inflammatory condition, should arouse suspicion of a roaming kidney. It, in many instances, doubtless produces a state of passive congestion at least, in the appendix, sufficient to occasion some measure of discomfort.

A small ovarian cyst with long pedicle may simulate a floating kidney in some particulars.

By palpation a differential diagnosis is quickly made. The one is carried with least resistance downward and into the pelvis, the other in an upward direction under the ribs.

I have at times experienced a feeling of regret that a diagnosis of movable kidney had been made in a patient whose condition was fairly comfortable. Resting under the impression that her health was only slightly impaired, she and her family are overwhelmed with the idea of a "floating kidney" and, not being a sensible woman, the entire neighborhood is informed and thrown into a state of excitement. Unfortunate as such a state of things may

sometimes prove to be, it is nevertheless well that an early diagnosis be made.

It is not every case by any means which requires operative treatment. Palliative measures are sufficient in a large proportion of cases. In those patients in whom the mobility is slight and the constitutional effects correspondingly mild, what may be termed a preventive treatment should be advised. Preventive in the way of the removal of exciting causes and of all influences disposed to aggravate the condition. The tight corset and the close-fitting waist, which contracts the lower thoracic zone, should be discarded, as should skirts suspended from the girth, dragging downward by their weight all of the abdominal organs. A comfortably fitting waist should be substituted with straps over the shoulder, and from this the skirts should be suspended. With these causes, which have a tendency to encourage intra-abdominal prolapse, removed, mechanical devices should be utilized to support the relaxed wall and, by exerting pressure from below upward, overcome in some measure the effects of the evil influences which have been at work. The ordinary abdominal supporter, if of strong quality and if it can be neatly fitted, is helpful. A fashionable and up-to-date corset is now becoming popular which may prove a mechanical appliance worthy of the commendation of the profession. Its object is diametrically opposed to the old idea of narrowing the waist. Its purpose is to overcome the prominent abdomen, thought to be ungraceful and inartistic. It has a long, straight front, extending almost to the pubes, and acts on much the same principle as the abdominal supporter. To succeed perfectly in its object of holding up the abdominal wall, it is necessary to avoid pressure about the waist, since that space is essential for the uplifted intestines, consequently it is wide above. It has been suggested to adopt it in the mechanical treatment of floating kidney. In two cases under observation it is giving fair success.

In addition to this general uplifting of the entire abdomen, a direct support to the prolapsed kidney is usually necessary and may be given by a strip of adhesive plaster and a small pad; the plaster should be 3 inches in width, and in length sufficient to reach from a point below the umbilicus to the middle of the back at about the level of the tenth rib. A small pad of cheese-cloth should be placed below the margin of the ribs at a point opposite the tenth and eleventh ribs and held in place by the strip of plaster. It should be applied with the expiratory act after the manner of its application in the treatment of fractured ribs.

If such palliative measures should not give relief, the organ not being held in position, discomfort and pain persist, the digestive and nervous conditions unimproved, and especially if albuminuria develops, indicating circulatory disturbances in the kidney, the time has arrived when operative treatment should be adopted.

This paper is to mark a distinct departure from the established rule in the literature upon the subject of floating kidney. It is the first one ever written, I believe, in which the author has not laid

claim to a "new and original" method of anchoring the kidney or a "modification" of some one's new method. The operation which I prefer, and the only one which I shall here briefly describe, will not be given the name of any distinguished surgeon, lest injustice be done some other worthy member of the profession whose hints may have been utilized. In fact, the operation now preferred by the majority of surgeons is a species of evolution. It has been evolved out of the failures and successes of numerous operators. It profits by the errors of Hahn, the eminent surgeon who did the first nephropexy, utilizing the fatty capsule. It embraces the muscle-splitting idea of McBurney, and it meets the requirement of modern surgery and of every operator's ambition in securing primary union rather than healing by granulation.

With the patient in a prone position and a large round cushion under the abdomen, a straight incision should be made between the twelfth rib and the crest of the ilium and along the outer margin of the erector spinæ muscle. As far as possible the fibers of the muscles encountered should be separated by splitting rather than by cutting them. When the kidney is brought in position, it should be divested of its fatty capsule, much of which should be removed entirely. The fibrous capsule should be split the full length of the kidney and carefully reflected from the sides to the extent of an inch. Each flap should then be stitched by four or five chromicized catgut sutures to the divided muscle. The sutures should not be placed in the edge of the fibrous flap, but given a deep hold, passing through it, near its line of reflexion from the cortex. Nor should the sutures be through the edge of the muscle, but, by everting it, they should be placed on the inner surface a little away from the edge. Or both ends of the suture may be passed up through the muscle a short distance apart and tied on its upper surface, a suggestion of Edebohls. When the suturing of the fibrous capsule to the muscle on both sides is completed, interrupted sutures should be placed through the edges of the muscle and tied, which step serves to bring muscular tissue in apposition to the exposed cortex of the kidney, thereby insuring firm adhesion. The skin may be closed by interrupted silkworm-gut sutures.

A few important points should be kept in mind. (1) Seek to avoid wounding the iliohypogastric nerve. (2) Do not attempt to anchor the kidney in too high a position, its major portion should rest below the twelfth rib. (3) Aim, in fixing the kidney in its new position, not to change its normal relation to the axis of the body, that no kink or twist may be given the ureter. (4) Keep the patient in bed 3 or 4 weeks, and in many cases tonic and constitutional treatment should be begun and continued indefinitely.

Finally, a note of warning. When a patient, whose sufferings have been severe and prolonged, is discovered with a movable kidney, do not in your enthusiasm infer at once that it is the sole cause of her invalidism; before promising too much, make sure that there is not a general ptosis of the abdominal organs, possibly including a prolapsed or

retroverted uterus. These and other complications overlooked often supply the explanation of an unsatisfactory result in the operative treatment of movable kidney.

LA PRESSE MEDICALE.

August 6, 1902. (Vol. II, No. 63.)

- 1. The Bacteriology of Perlèche. GUSTAVE BUREAU and FORTINEAU.
- 2. The Sporozoa of Smallpox. A. CLERC.
 - 1.—An epidemic of perlèche, fissures with ulceration of the angle of the mouth, occurred in 21 of the 27 children in the ward. Bacteriological examinations were made upon 16 cases, in all of which streptococci were observed in the lesions, and in several in the saliva. Therefore Bureau and Fortineau conclude that the streptococcus is generally the cause of perlèche. [M. O.]
 - 2.—Clerc reviews the work done upon the etiology of variola, concluding that recent studies seem to point to sporozoa as the cause of smallpox. In peculiarities this resembles the microsporidium Bombycis (Ishigami). Writers also agree upon the identification of vaccine with smallpox. These results have been noted by independent observers and are therefore valuable. [M. O.]

August 9, 1902. (Vol. II, No. 64.)

- 1. Perforative Peritonitis in Typhoid Fever in Children. H. MERY.
- 2. The Therapeutics of Pyramidon. P. A. MESNARD.
 - 1.—Perforation occurred suddenly on the seventeenth day of a mild attack of typhoid fever in a child, with pain, vomiting, rapid pulse, fever and collapse. Laparotomy was performed the next day, the perforation found and sutured. Peritonitis and bronchopneumonia followed, with death 12 days after operation. Perforation occurs frequently in childhood, especially in mild cases. After reviewing the subject, Méry states that, whenever a child enters a hospital with typhoid fever, permission to operate, when necessary, should be procured from the parents. [M. O.]
 - 2.—Mesnard advises pyramidon in influenza, typhoid fever, etc., in doses of from 4 to 30 grains daily. [M. O.]

August 13, 1902. (Vol. II, No. 65.)

- 1. The Toxicity of Renal Substance and Nephrotoxins. J. CASTAIGNE and F. RATHERY.
- 2. Lead Poisoning in Children. R. ROMME.
 - 1.—Pieces of kidney from one animal are toxic when injected in other animals. Besides, a kidney removed from an animal and then injected into the peritoneal cavity of the same animal has a decidedly toxic effect. Both auto-nephrotoxic and heteronephrotoxic serums proved to be toxic. Castaigne and Rathery, who report several experiments, conclude that renal substance is toxic both for the animal from which it came and for other animals. Besides, there is no doubt that a nephrotoxin exists in the serum of an animal into which renal substance has been injected. The toxic effect is the same, with renal substance or nephrotoxic serum. [M. O.]
 - 2.—Romme reviews the many ways which may lead to lead poisoning in young children. These may be on food, milk, the paint on people's cheeks, cosmetics, hair-dyes, ointments on nipples, borders about bibs, paper wrappings, wallpaper, furniture, shoes, balconies, porches, baby carriages, oilcloth, toys, paint boxes, visiting cards, shot, drugs and thousands of other unsuspected means of reaching young children. [M. O.]

Iliac Incision in Subhepatic and Prerenal Abscess.—Schwartz reports the case-history of a girl, aged 15 years, with a large prerenal and subhepatic abscess, which he opened by making an iliac incision, progressively rolling back the peritoneum. No search was made for the appendix, the probable cause, of the condition. Drainage was left in. Recovery followed very slowly. This is a rare localization for appendicular abscess. The abscess was probably due to infection by the colon bacillus. (Le Bulletin Médical, October 8, 1902.) [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending November 1, 1902.

SMALLPOX—United States.

			Cases.	Deaths.
CALIFORNIA:	San Francisco.	Oct. 12-19	3	
ILLINOIS:	Chicago.	Oct. 18-25.	7	
INDIANA:	South Bend.	Oct. 18-25.	1	
MAINE:	Biddeford.	Oct. 18-25.	2	
MASSACHUSETTS:	Cambridge.	Oct. 18-25.	2	
	Malden.	Oct. 18-25.	1	
	Marlboro.	Oct. 18-25.	1	
NEW HAMPSHIRE	Manchester.	Oct. 18-25.	1	
	Nashua.	Oct. 18-25.	18	
NEW YORK:	New York.	Oct. 18-25	3	
OHIO:	Cincinnati.	Oct. 18-25.	4	
	Cleveland.	Oct. 18-25.	24	7
	Youngstown.	Oct. 18-25.	4	
PENNSYLVANIA:	Eric.	Oct. 18-25.	7	
	Johnstown.	Oct. 18-25.	6	
	McKeesport.	Oct. 18-25.	7	
	Pittsburg.	Oct. 18-25.	43	4
UTAH:	Salt Lake City.	Oct. 18-25.	6	
WISCONSIN:	Milwaukee.	Oct. 18-25.	22	

SMALLPOX—Foreign.

BARBADOS:		Sep. 28-Oct. 13 290	11
CANADA:	Quebec.	Oct. 11-18.	2
ECUADOR:	Guayaquil.	Oct. 4-11.	4
FRANCE:	Rheims.	Oct. 5-12.	1
GIBRALTAR:		Oct. 5-12.	1
GREAT BRITAIN:	Bristol.	Oct. 4-11.	1
	Edinburgh.	Sept. 27-Oct. 4 . 2	
	Liverpool.	Oct. 4-11.	5
	London.	Oct. 4-11.	2
	Manchester.	Sept. 27-Oct. 4 . 1	
INDIA:	Bombay.	Sept. 23-30 . . .	1
	Madras.	Sept. 13-19. . . .	1
ITALY:	Naples.	Oct. 6-13.	4
	Palermo.	Sept. 27-Oct. 11 9	3
RUSSIA:	Moscow.	Sept. 27-Oct. 4 . 1	1
	St. Petersburg.	Sept. 27-Oct. 4 . 5	3

YELLOW FEVER.

COLOMBIA:	Panama.	Oct. 13-20	7	1
COSTA RICA:	Port Limon.	Oct. 16-23.	1	
ECUADOR:	Guayaquil.	Oct. 4-11.	2	
MEXICO:	Mexico.	Oct. 12-19.	1	
	Tuxpam.	Oct. 14-21.	1	
	Vera Cruz.	Oct. 18-25.	10	3

CHOLERA.

CHINA:	New Chwang.	Aug. 31-Sep. 13 63	64
EGYPT:		Oct. 12-18	705 636
	Alexandria.	Sep. 27-Oct. 4. . 129	129
INDIA:	Bombay	Sept. 23-30. . . .	1
	Calcutta.	Sept. 20-27. . . .	11
	Madras.	Sept. 13-19. . . .	1

PLAGUE—United States.

CALIFORNIA:	San Francisco.	Oct. 11.	1	1
	San Francisco.	Oct. 16.	1	1

PLAGUE—Insular.

HAWAII:	Honolulu.	Oct. 16.	1	
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PLAGUE—Foreign.

INDIA:	Bombay.	Sept. 23-30.	76	
	Calcutta.	Sept. 20-27. . . .	15	
	Karachi.	Sept. 21-28. . . .	21	18

Uremic Convulsions Treated by Venesection and Injections of Normal Salt Solution.—Debrie reports the case-histories of 6 young soldiers with uremic convulsions. Venesection was performed in every case with success. This was followed by subcutaneous injections of normal salt solution into the thigh, for a half hour. This treatment greatly increased the amount of urine excreted. Albumin disappeared from the urine as soon as the convulsions ceased. (Archives de Médecine et de Pharmacie Militaires, October, 1902.) [M. O.]

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NEWER REMEDIES.

By V. COBLENTZ, Ph. D.

RHEUMATIN.—This new salicylic acid derivative, a saloquinine salicylate, prepared by the quinine works of Zimmer & Co., of Frankfurt, appears as a white, tasteless powder, which is but slightly soluble in water. Pieper (*Therapie d. Gegenwart*, May, 1902) reports successful treatment of articular rheumatism with doses of 3 to 4 gm. (45 to 60 grains) daily, no symptoms of tinnitus or stomach disturbances appearing. He reports that larger doses produced these disagreeable symptoms in a slight degree, which are not to be compared, however, to the disturbances caused by salicylic acid or aspirin (acetyl salicylic acid). Rheumatin was given only during the afternoon hours, in conjunction with an abundance of fluids, abstaining from solid diet.

LIPIODOL AND LIPOBROMOL.—Such unsaturated oils as the linseed, poppy, nut and sesama, which consist of the glycerine esters of the unsaturated acids oleic, linoleic and isolinoleic, readily combine with the halogens iodine, bromine and chlorine. Lafay (*Les. Nouv. Rem.*, 1902, 217) thus prepared an iodized oil which contained 40 per cent. by weight of iodine, or 0.54 gm. in each cubic centimeter. This preparation was named lipiodol. A bromized poppy oil containing 33.3 per cent. of bromine, differs from the poppy oil only in its fluidity, and constitutes a bland, almost tasteless preparation which is neutral to litmus, does not react with silver nitrate and is broken up with difficulty by the caustic alkalis. The bromine strength of 33.3 per cent. was selected for lipobromol because of convenience in dosage, each grain represents 0.5 gm. of potassium bromide, and each cc. containing 0.421 gm. of bromide represents 0.63 gm. of the alkali bromide. This strength was also selected because of greater fluidity which adapts it for subcutaneous use. Internally, lipobromol may be given either in emulsion form or capsules. However, if desirable, a preparation much stronger in bromine content may be prepared.

PERDYNAMIN.—Very recently a number of new iron preparations have been introduced, particularly iron-albumins and globulins, all of which belong to the category of the nutritives and not the toning preparations. This division system is not empirical, but the result of observation and experiment. The toning iron preparations act locally upon the mucus surfaces of the stomach and intestines, assisting the healthy absorption of food, while the nutritive preparations serve chiefly in the formation of blood. Ferratin, one of the first of iron albumins to be introduced, apparently belongs to the class of nutritives containing hemoglobin. To this also belongs perdynamine. According to Kronheim this preparation is entirely digestible, and after 11 days administration the hemoglobin content rose from 53 and 57, to 70 per cent., remaining at this upon continuing the use of the preparation. This percentage is likely the maximum attainable with the rabbit

upon which the experiments were made. This demonstrates that perdynamine is an energetic blood builder, which experience has shown to be readily tolerated and absorbed. (O. Liebrich, *Therap. Monats.*, August, 1902).

BROMO- AND IODOSERUM.—Bromoserum is a solution of sodium bromide 6 p. and sodium chloride 1.5 p. in 1,000 p. of water. Buvat uses this as an injection as a substitute for bromides. Its sedative action in certain mental diseases is very marked. As much as 500 cc. may be given. Iodoserum is a solution of sodium chloride 6 p., and potassium iodide 2 p. in 1000 cc. of water. Used in syphilitic diseases also as a sedative for mental diseases. *Phar. Ztg.*, XVII, 170.

POTASSIUM PERMANGANATE IN BURNS.—Dr. Kharitonov considers this salt as being very efficacious in burns when applied in the form of a saturated solution. It is absolutely nontoxic. (*Merek's Rep.*, Sept.)

HYPNOPYRINE.—Stated by its promoters to be a chlorine derivative of quinine, but by others to be a mixture only. Soluble in 8 times its weight of water, very soluble in alcohol and diluted acids. Hypnobromine is stated to be antithermic, analgetic and hypnotic in doses of 0.25 gm. (4 grains) 3 to 4 times daily. *Rep. Phar.*, XIV, 303.

GLUTANNOL.—An intestinal astringent which is stated to be a compound of vegetable fibrin and tannic acid. In action it resembles tannalbin, being insoluble in the gastric juice and soluble in the intestinal fluids. It is very useful in dysentery, intestinal catarrh and tuberculosis of children. The adult dose is 0.25 to 1 gm. (4 to 15 grains); for children 0.25 to 0.5 gm. (4 to 7½ grains). *Phar. Ztg.*, XLVII, 511.

ANTIGERMIN.—A disinfectant compound of copper and an organic acid which forms a viscid greenish-yellow mass. It dissolves in 200 parts of water, and, according to Wesenberg, is a powerful deodorant and bactericide. *Phar. Ztg.*, XLVII, 511.

FERROLEUM.—A proprietary phosphorated cod-liver oil (50%) emulsion which contains iron phosphate. Made by the Ferroleum Co., of London.

ISAVOL.—A sulphonated sulphur product obtained from bituminous alpine state, the properties of which answer the description of ammonium sulphoichthyolate of the Swiss Pharmacopeia. Isavol forms a thick brownish-red fluid of an odor resembling that of ichthyol. Upon warming with alkalis, ammonia gas is evolved, the product dissolves clear in water, in 10 parts of 95% of alcohol it forms a turbid solution. The addition of acids precipitates a dark, thick mass, which is soluble in water, alcohol and ether. Isavol contains from 8.5 to 9.5% of sulphur, the dried preparation contains 17 to 19% of sulphur. Prepared by the Gesellschaft f. Chem. Industrie, Basel.

VALERIAN ESSENCE COMP.—A preparation made by Kalle & Co., Berlin, which consists chiefly of a distillate of valerian root and peppermint leaves.

ARSITRIOL AND MARSITRIOL.—Arsitriol is a calcium glycerate arsenate, while marsitriol is the corresponding iron preparation which is an amorphous, yellow mass, insoluble in water. Dose 0.01 gm. (1/6 grain). *Phar. Ztg.*, XLVII, 511.

FERISOL.—A derivative of cinnamic acid and guaiacol which occurs as a very soluble powder. Dose 1 gm. (15 grains), intramuscularly, 15 minims of a 10% solution, which may be increased to 45 minims daily. *Rev. de Therap.*, LXIX, 9.

THYMOL URETHANE.—A compound of thymol and thymol carbonic ester, which forms colorless crystals insoluble in water. It is readily broken up in the alkaline intestinal juices into thymol, which acts as an anthelmintic. Provided there are no disturbances, the gastric juice exerts no effect upon the preparation. *L'Union Pharm.*, XVII, XLIII 269.

GUACO.—A plant indigenous to Mexico which physiologically paralyzes the sensory nerve centers. Dr. Butte experimented successfully with the drug in affections in which the sensory nerve centers are irritated, as neuralgia, pruritis, pruriginous eczema, etc. The dose was not given. *Brit. Med. Jour.*, 1902, 30.

IODOLINE.—A compound of iodol (tetraiodopynol) and albumin which is offered as a substitute for iodoform. It appears in two forms, one containing 10% of iodol, for internal use, and the other a 36% (iodol) for external use. In tertiary syphilis doses of 30 grains, 6 to 7 times daily, were given. Only occasionally digestive disturbances and iodism were noticeable. To prove of benefit only very large doses should be given, 3 to 5 drams daily. *Brit. Med. Jour.*, June, 1902.

THIOLIN IN BRONCHIAL AND PULMONARY AFFECTIONS.—Dr. Caracciola says of this remedy, based on 2 years' experiments, "We believe firmly that there is no remedy which can rival thiocol in the cure of diseases of the bronchial tubes and lungs." He considers it as valuable and certain as quinine, because while the latter "cures and protects from malaria, thiocol destroys or modifies the soil on which there might develop a disease much more terribly, namely, it acts as a prophylactic against tuberculosis." *Merek's Report*, Sept., 1902.

SURGERY.

Chloroform and Ether Anesthesia.—Poncet (*Gaz. hebdomadaire de Méd. et de Chirur.*, March 6, 1902) reviews this important subject and gives the following conclusions: (1) Chloroform is more dangerous than ether as all statistics show. The researches of Julliard show one death in every 2 or 3 thousand chloroformizations, and only one death in every thirteen or fourteen thousand etherizations. The author reports 29,000 personal etherizations with only one death and that a child who had organic heart disease. (2) Ether does not cause the primary or reflex laryngeal syncope at the onset of the anesthesia, which is so relatively frequent and suddenly fatal when chloroform is used. Ether alone is to be preferred to mixtures for purposes of anesthesia. (3) It has not been proved, and no statistics have established, that the postoperative pulmonary complications, such as bronchitis, congestion of the lungs, bronchopneumonia, edema of the lungs, etc., are due to the irritant action of the vapor of ether. The so-called etherization or chloroformization pneumonias are essentially due to infection. The pulmonary complications are probably just as frequent in those operative cases which receive no anesthetic. (4) It is not exact to say that the mortality from ether narcosis in the days following the operation is the same as that caused by chloroform which kills at the time of the operation. This opinion becomes much less justified when one considers that the vapor of chloroform is more irritant than that of ether. (5) The contra-indications to anesthesia are the same as they formerly were. Cardiac or pulmonary lesions do not absolutely contra-indicate etherization for a long or painful operation, but, instead, the anesthetic in these special cases must be administered with extreme care. (*Amer. Jour. Med. Sciences*, August, 1902).

The treatment of affections of the central nervous system occurring in childhood.—Stiles (*British Med. Jour.*, September 6, 1902) thinks the radical treatment by excision of the sac should take the place of all other methods in dealing with cases of spina bifida. Simple tapping

should never be resorted to, as it is followed by a rapid re-accumulation of fluid, and, if frequently repeated, there is apt to be leakage followed by meningitis. Simple tapping is only of value as a palliative measure when the sac is tense and ulcerated. Leakage may be prevented by using a very fine needle and passing it obliquely through the muscles into the sac. The injection of Morton's fluid is curative in many cases, but it is attended with more danger than is aseptic excision. Hydrocephalus is a definite contra-indication to operation. Complete paralysis of the sphincters and lower extremities, especially if associated with clubfoot, contra-indicates operation, but if there be but partial paralysis, operation may be attempted, with some hope of restoration of the function of the lower limbs. When the base of the tumor is very large, and when the tumor is covered with skin so thin that it would be impossible to get sufficient integument to close the defect, operation is not to be recommended. It is better to delay operation until the child is a few months old, unless the tumor be very tense and threatens to perforate, when operation must be performed, no matter how young the patient. The defect is best closed by suturing the erector spinæ muscles together. In cases of cranial meningocele, however, it is desirable to cover the defect in the skull with a pedunculated flap consisting of pericranium and a thin layer of subjacent osseous tissue derived from the adjacent bone. Although much energy and ingenuity has been displayed in efforts to cure congenital hydrocephalus, surgical interference in these cases offers no hope for permanent benefit. The operation of linear craniectomy for microcephalus should never be performed, excepting, perhaps, in those cases in which, along with the idiocy, there are present nervous disturbances which may be regarded as proceeding from local irritation by the lesion in the brain. In cases of tuberculous meningitis, operation is not to be recommended when the diagnosis is certain, but if doubt exists, operation should be performed on the ground that no harm is done if the disease be tubercular, whereas operation may save life should a cerebral lesion be present which is nontuberculous. Nontuberculous posterior basic meningitis may be treated by removing the laminae of the seventh and eighth thoracic vertebrae, incising the dura and thus establishing drainage, if lumbar puncture demonstrates purulent cerebrospinal fluid. Puncture of the lateral ventricles, together with lumbar puncture, should be resorted to systematically and at an early stage of the disease. If the fluid be distinctly turbid, drainage by means of a small flanged silver tube is preferable to repeated tapings of the ventricles. Drainage of the fourth ventricle by means of a trephine opening above or to one side of the foramen magnum is a formidable operation, it fails to drain the lateral ventricles if the aqueduct of Sylvius happens to be blocked, and it is difficult to control the amount of cerebrospinal fluid escaping. Paraplegia, the result of Pott's disease, is best treated by rest and extension, if the paralysis be of recent origin. The success of a laminectomy depends on the nature of the compression on the cord. If this is the result of a narrowing of the canal at the point of greatest curvature, the result of a dislocated sequestrum or of an abscess, the best results may be expected. Paralysis from pachymeningitis or from a tuberculous collection outside the dura offer an unfavorable outlook. Forcible correction of a tubercular kyphosis is condemned.

Direct anastomosis of the portal vein with the vena cava for drainage of an obstructed portal venous system.—The necessity for drainage of the portal system, when there is obstruction to the venous return, is well recognized, but a rapid, sure and practicable method is not known. Although epiploplexy is still used, the drainage by this method is indirect and incomplete. Tansini (*Centralblatt für Chirurgie*, Sept. 6, 1902) has planned an operation which he has worked out on the cadaver and has successfully applied on dogs. He isolates the vena cava and the portal vein, applies a ligature to the portal vein near the liver, places a temporary rubber ligature below this and severs the vein between. Two temporary rubber ligatures are placed on the vena cava and an oval section of its wall excised between the ligatures. The cut end of the portal vein is then carefully united to the opening in the vena cava with silk sutures, and the temporary rubber ligatures

are removed. That the circulation is intact after operation is easily demonstrated by the swelling of the veins and the disappearance of the blueness of the intestines.

Cancer Treated With Cancroin.—Kugel (*Berliner klin. Woch.*, June 16, 1902) reports a case of cancer of the breast cured by injections of cancroin. The patient was a woman, aged 53 years, who had suffered from a tumor of the left breast for 10 years, the growth had been removed 4 times, but always recurred. At the time the injections were begun, there were evidences of involvement of the anterior mediastinum, the fourth rib being pushed forward, the supraclavicular glands were enlarged, and there was a nodule in the right breast. The growth had entirely disappeared at the end of 14 months, and the patient has been absolutely free from any traces of the disease for 5 months. The tumor was examined by several competent pathologists and pronounced to be undoubtedly carcinoma. In the same number of the *Berliner klin. Woch.*, Adamkiewicz reports 5 other cases of cancer cured by the subcutaneous administration of cancroin, one of cancer of the tongue, one of cancer of the esophagus, one of cancer of the stomach, one of cancer of the larynx and one of cancer of the breast.

On the Avoidance of Shock in Major Amputations by Cocainization of Large Nerve Trunks Preliminary to their Division.—Shock is a peculiar state of depression of the normal activities of the central nervous system brought about by traumatism to the peripheral afferent nerves. The impulses resulting from this traumatism act reflexly upon the vasomotor mechanism in the medulla in such a way as to occasion a marked fall in bloodpressure. This diminution of arterial tension is the most characteristic symptom of shock. Under ordinary circumstances, injuries of only moderate severity to peripheral nerves cause a rise in bloodpressure. Extensive or frequently repeated injuries, especially if complicated by a primary or secondary anemia, are productive of a fall of bloodpressure indicating shock. Shock need not be occasioned even in the most extensive surgical procedures on the extremities, providing due regard is given to perfect hemostasis. In operations of considerable magnitude, however, during which the division of many large nerve trunks becomes necessary, or in operating upon such traumatic cases as have already been complicated by extensive injury to peripheral nerves, so-called operative shock is rarely avoided. Cocaine injected into a nerve trunk effectually blocks the transmission of all centripetal or sensory impulses, which otherwise, by acting reflexly through the medullary centers, might become the chief factor in the production of shock. Cocainization of the spinal cord by subarachnoid lumbar injections, with blocking possibly of a higher order of neurons, is quite another thing. Here a different physiological process comes into play in consequence of the throwing out of action, in the majority of cases, of the vasomotor fibers passing from the upper thoracic segments to control the splanchnic system. As a result, there is a flooding of the territory. Shock, consequently, in so far as it is an expression of low bloodpressure, is almost without exception produced, not avoided. This is the real source of danger in rhachicocainization, and not the toxic effects of the drug itself. Strychnine and intravenous transfusion of saline solution, even though there may have been but slight loss of blood, are the usual measures advocated for shock due to the crushing of a limb. They are, if not actually harmful, certainly not helpful. The real indication is to rid the patient of the centripetal impulses, originating in the crushed member, by cocainization and division of the large nerves, so often exposed in a mangled limb, by ligation of vessels, if necessary, and by the earliest possible removal of the painful tourniquet. Under proper management, with possibly strapping of the abdomen to hold up the bloodpressure, with morphine in small amounts to control restlessness, and with a proper avoidance of those conditions which, during the operation, would increase shock, early operation with ether anesthesia (never chloroform) should be performed in most cases of severe traumatism of the extremities. (Cushing, *Annals of Surgery*, September, 1902.)

Nature's Method of Obtunding Pain.—It is generally supposed that pain in inflammation is due to pressure on nerves by the exudate poured out. This explanation does not agree with the facts. Hot baths, hot sand and hot air relieve pain enormously in many chronic inflammations, and yet, according to Bier, they act by exciting a high degree of arterial hyperemia. The arterial hyperemia produced by Bier's method increases pressure but relieves pain. The same relief of pain was obtained by Ritter in treating a case of frost bite by artificial hyperemia. Schleich's method of local anesthesia, by infiltration, increases pressure. Ritter finds that in all acute inflammations the power of perceiving pain increases quickly, but that, as soon as serous infiltration (edema) appears in the tissues, it markedly diminishes. These observations apply to traumatic as well as to infective inflammations. Even in inflammation of the skin, e. g. erysipelas, there is at first increased perception of pain, but later, when the tissues are tensely infiltrated, the pain perception is lowered. Ritter carried out a series of experiments on himself, producing artificial hyperemia and inflammation. He found that hyperemia, whether produced by bandages or cupping, always diminished the perception of pain, while inflammatory arterial hyperemia increased it to begin with, but that, as soon as exudation was established, the pain diminished. Inflammatory edema is comparable to the wheals produced by the Schleich injections which, immediately, occasion pain, later anesthesia. Baum believes that the anesthetic effect of Schleich's solution depends on the osmotic tension of the fluid used; this may be the explanation of the phenomena observed in inflammation. By determination of the freezing-point of fluids obtained from inflammatory swellings, Ritter found a distinct increase of the osmotic pressure, compared to that of the normal tissue fluids. Normally, the concentration of the tissue juices varies according to the destruction of the albumin in metabolism, and Ritter points out that in the various forms of inflammation there is an increased destruction of albumin (necrosis of tissue). In all probability it is due to an increased destruction of albumin that the juices in inflammatory exudates are of high tonicity. The conclusion is evident that the pain in inflammation is not due to the pressure of exudates, but to their increased concentration. Anesthesia rapidly follows the early pain. This anesthesia is not desirable, because it is often a source of danger to the tissues, as a complete anesthesia is equal to death of the affected cells. The body does not submit passively to the increased concentration of the inflammatory fluids, but endeavors to prevent or dilute them. This dilution is obtained by osmosis, the blood and serum flowing toward the fluid of high osmotic tension. Ritter has observed, contrary to former investigations, that every chemical injected into the skin produces a hyperemia in the neighborhood. The stronger the concentration of the chemical, the greater the hyperemia or serous infiltration. When isotonic fluids are used, the influence of hyperemia on the sense of pain is proved by the injection of normal salt solution, which neither produces hyperemia, pain nor anesthesia. From this investigation it follows that one must consider hyperemia (whether arterial or venous) and serous infiltration nature's method of alleviating pain by lowering the injurious high concentration. Normally this method of alleviating pain acts very promptly, but in severe injuries and in the anemic it is often delayed. Under such circumstances one may artificially produce or increase it (1) by all so-called counterirritants (according to Ritter, it is impossible to produce an inflammatory hyperemia without injuring the tissues); (2) the most effective and least injurious means is that suggested by Bier, artificial stasis, cupping, Junod's boot and hot air. (*Verhandlungen der deutschen Gesellschaft für Chirurgie*, 1902; *Annals of Surgery*, September, 1902.)

Acid Alcohol for the Prevention of Stitch Abscesses.—De Gaetano (*Giorn. internat. delle scienze med.*, Anno XXIV: *Centralblatt für Chirurgie*, Sept. 6, 1902) submerges his suture material in acid alcohol* (alcohol 5 parts, acetic acid 1 part) during his operations, rubs the operative field with the same material after the tying of the sutures, and impregnates the first layer of the dressing with this agent for the prevention of infection. Bacteriologically the threads and stitch holes have remained sterile.

A Discussion on the Ultimate Results of Surgical Operations Upon the Frontal Sinus and Maxillary Antrum.—Lermoyez (*British Medical Journal*, August 30, 1902) treats acute frontal sinusitis by inhalations of mentholized steam; if this fails the sinus may be syringed by catheterizing its natural orifice. Removal of the head of the middle turbinated bone and curetting of the polypi facilitates drainage. When these methods have failed, the anterior wall of the sinus should be excised, the cavity curetted and drainage through the nose established. The resulting disfigurement may be remedied by the injection of paraffin. Diplopia, due to interference with the superior oblique muscle, may be rectified by stretching the inferior rectus muscles of the affected side. The best operation for maxillary sinusitis consists in making a temporary orifice through the canine fossa for curetting and disinfection, and a permanent opening into the nose for drainage.

The Surgical Treatment of Chronic Bright's Disease.—Schmidt (*Medical Record*, September 13, 1902) concludes an article on this subject as follows: (1) In acute infectious diseases, anuria, with uremic symptoms threatening the life of the patient, can be successfully combated by capsular incision or renal cleavage, which relieves swelling and excess of intrarenal pressure. Operation on one side is sufficient to bring about an abundant urinary secretion, followed by a subsidence of the alarming general features. Whether the other kidney gains time to recuperate and resume its function, or whether reflex action plays a predominating role, are debatable points. At all events, nature seems to get along with a small portion of functioning kidney tissue. (2) Anuria with uremic symptoms, occurring in the course of chronic Bright's disease, has offered an occasion for surgical procedure. To recognize such an indication on reasons which are analagous to those above mentioned, is, of course, a matter of individual judgment. Temporary relief, in some instances has been gained, a permanent cure, however, has never been effected. (3) When the kidney has been operated upon directly for the cure of chronic Bright's disease, the outcome has been a failure. The apparent benefit manifested in the disappearance of dropsy, dyspnea, etc. occurs just as regularly in the ordinary course of the treatment by medication and capillary drainage, or puncture. (4) In exceptional cases colicky pains and hematuria are caused by chronic Bright's disease. Capsular incision, or cleavage of that kidney to which the disturbances were traceable, has been attended by excellent results: there can be no doubt that, when medical expedients have failed, surgical interference has succeeded in checking the hemorrhages and alleviating the pain, but it does not inhibit the progress of chronic Bright's disease. (5) Nephropexy may cure the ailments incident to movable kidney: it may remove albuminuria, if this be the result of local irritation, consequent upon the displacement; if, however, the movable kidney is affected by chronic Bright's disease, this affliction will remain uninfluenced by operation.

Surgical Treatment of Empyema. A Report Based on Seventy-five cases. Observed Chiefly in St. Mary's Hospital for Children.—Dowd mentions (*Medical News*, September 13, 1902): (1) Simple cases in which the treatment is as follows: Excision of about 1½ inches of the seventh or eighth ribs in the posterior axillary line; light ether anesthesia is usually employed; the purulent coagula are removed; short rubber tubing, cut partly across, doubled and held by large safety pins, is used for drainage; abundant gauze dressing is applied and changed when saturated. (2) If the patient's condition contra-indicates general anesthesia, an incision into the chest may be made between two ribs under eucaïne anesthesia. (3) Aspiration is only used to give temporary relief to patients who are in great distress from the pressure of the fluid, or temporarily to relieve the second side of a double empyema after the first side has been opened. (4) The patients are allowed out of bed as soon as practicable, and the expansion of the lung is encouraged by forced expiration. (5) Irrigation is only used where there is a foul-smelling discharge from necrotic lung tissue. (6) Secondary operations are not done until good opportunity has been given for healing; usually 3 or 4 months should have elapsed after the primary operation, and if there should have been no noticeable improvement

for a month. (7) In the secondary operation the expansion of the lung should be encouraged by incising, stripping back and, if necessary, removing portions of the thickened pulmonary pleura. (8) The examination of 44 cases at long periods after operation indicates that recovery is usually complete in the simple cases, and that there is surprisingly little deformity in most of the severe cases.

Pathogenesis and Surgical Treatment of Exophthalmic Goiter.—A. E. Halstead (*Medicine*) says that, because of the exceedingly good results obtained by the operative treatment of this disease, he holds that it is indicated in all cases in which a fair trial of the medical treatment has been made, provided the patient had become so reduced as to preclude the possibility of withstanding the shock of operation. The operative measures resorted to have been ligation of the thyroid arteries, exothyropexy, enucleation and partial resection. This last is the method to be preferred. The rapidity with which evidence of improvement follows operation varies. There is first an improvement in the general condition, then a change for the better in the nervous phenomena. Tachycardia requires months before actual relief is experienced, and the exophthalmos is frequently last to disappear.

Cases of Prostatectomy With Remarks on the Operation.—Paul Thorndike (*Boston Medical and Surgical Journal*, August 28, 1902) in an article says: (1) That great relief can be given to all patients suffering from symptoms due to obstructing enlargement of the prostate, either by palliative or by operative means. (2) That the time to resort to operative measures is just as soon as palliative treatment, carefully executed by competent hands, has failed to give relief. (3) That complete prostatectomy is always the operation of choice, because it is the only operative procedure which cures or gives uniformly good results, when successfully performed in proper cases. (5) That the best time for its performance is just as soon as palliative effects have failed or are manifestly impossible of execution and before secondary changes in the bladder and kidneys, due to long continued obstruction, have taken place. (5) That in those cases that come for surgical relief so late in the development of the pathological conditions, that the bladder and kidneys are extensively diseased and the patient is manifestly exhausted by long-continued suffering, other less certain and perhaps less severe measures may be advised instead of a complete prostatectomy; but that such a decision can only be and must always be made by the surgeon for the individual case and cannot be made the subject of generalization.

Morrison's Operation for Ascites Due to Laennec's Cirrhosis.—After reporting a case and examining the successful ones in the literature, Brown (*Annals of Surgery*, August, 1902) remarks that, when dealing with clear cases of ascites due to cirrhosis of the liver, he can summarize his opinions as to treatment as follows: (1) The more rapid have been the accumulations of ascitic fluid, the greater the reason to provide for long-continued drainage which is to follow the operation and to expect that very gradual improvement in all symptoms is the most and best which can be hoped for. (2) In these advanced and apparently hopeless cases of rapidly recurring ascitic accumulations, the three things of greatest import appear to be: (a) The full appreciation before operation of the necessity and the provision for a constant and thorough aseptic pelvic drainage. (b) The general observance of a rational and aseptic operative technique, such as that used in the third case of Mr. Morrison, and which we followed quite closely in our case. In other words, the readiness to forego the introduction of personal innovations until those methods, which appear reasonable, shall have been proven faulty. (c) The value of Morrison's adhesive strapping to keep in approximation the denuded peritoneal surfaces and at the same time to compel the serous effusion to find its only available space in the pelvis, appears to us most evident. The importance of the long continuance of this device we have demonstrated on two occasions, when a hospital interne attempted at the end of 4 weeks and again later to dispense with the adhesive strapping. Each time an accession of ascitic fluid to the up-

per part of the peritoneal cavity was apparent. (d) An unusual vascularity of the granulation tissue forming the infra-umbilical fistula was shown on several occasions, especially during the last stages of dressings, by so considerable a hemorrhage as to require constant plugging. From this the writer has inferred that an important and considerable part of the anastomotic circulation may in this patient's case be maintained by this particular band of adhesions.

Rectal Tumors.—The advantages of the abdominal route for the operation for rectal tumors are claimed by Abbe (*Annals of Surgery*, July, 1902) who in conclusion says that the operative method for cancer in different parts of the rectum must still be elective. There is no one method. The perineal route is the most available for very limited and very low down growths. The Kraske sacral method is available for a moderate number of growths which exhibit slight malignancy as to infiltration and are not more than a short finger length within the anus. But the abdominal method, combined with those just mentioned, more nearly meets the present attitude of surgery in seeking as wide and thorough extirpation as possible for malignant growths. The artificial inguinal anus had best always be made at the time of operation and need not be done beforehand. When the section of the rectum is made well up to the sigmoid, the ends of the severed gut should be inverted by a stout silk purse-string suture for more perfect cleanliness and handling.

Anesthetics: The Effect of Chloroform on the Kidneys: Ether Anesthesia by the Interrupted Method.—Renaut (*Journal des Praticiens*, April 12, 1902) says that, when enough chloroform is given to produce anesthesia, a renal lesion always results. Microscopically, the outer epithelium of the tubules has disappeared. Thus the dialyzing and filtering properties of the kidneys are badly injured, as his experiments upon animals show. On this account he prefers ether as a general anesthetic. Ether is absolutely harmless, as his 25 years' experience has shown. To prevent asphyxia, ether should be given by the interrupted method. The patient is anesthetized, then the ether is stopped temporarily, until reflexes appear, when it is again given for a short time. This is repeated indefinitely. Therefore, when the candle or cautery is not used in an operation, ether is to be preferred.

Statistics Upon the Operative Treatment of Aneurysm.—Jacobsthal (*Deutsche Zeitschrift für Chirurgie*, May, 1902) has collected many statistics upon the operative treatment of aneurysm of the innominate artery, reporting Braun's case in a woman of 42. The common carotid and subclavian arteries on the right side were ligated simultaneously. Death from weakness occurred 51 days after operation. This was the treatment in 55 of 94 such cases collected from the literature. The common carotid on the right side was ligated in 24 cases; the carotid and subclavian at different times, in 9. This double operation gave the best results, improvement in all 9 cases. Of 120 cases of operated aneurysm collected, only 2 lived over 3 years after operation. Many detailed symptoms and case-histories follow.

Treatment of Chronic Suppuration in the Frontal Sinus.—Lack (*Edinburgh Medical Journal*, June 1902) says that operation in chronic suppuration in the frontal sinus may be required for (1) pain; (2) deficient drainage; (3) bulging of the cavity, or a discharging external sinus; (4) symptoms of cerebral trouble; (5) general ill health. The treatment of chronic suppuration in the frontal sinus is: (1) If suppuration is suspected, at first intranasal. This consists in (a) securing free access to the lower end of the infundibulum by removing the anterior end of the middle turbinate, part of the uncinat process, and opening up the anterior ethmoidal cells, and at the same time removing any polypi or other obstruction that may be present, followed by simple nasal irrigations for a few weeks; and (b) in favorable circumstances this may be followed by cautious attempts to wash out the sinus through its natural opening, but on no account should an attempt be made to enter it forcibly from the nose; (2) if this method fails and serious symptoms are present, the frontal sinus should be opened

externally and should be obliterated, (a) when it is not very large, for then the cure is certain and the resulting deformity is slight; (b) when the posterior wall is carious or perforated; (c) when cerebral symptoms are present; and (d) even when the sinus is large, if the patient does not object to run the risk of deformity; (3) in all other cases a free opening should be made into the nose, and free drainage maintained until all suppuration has ceased; (4) operations providing external drainage only are inefficient, and operations allowing of intranasal drainage for a limited time only are both inefficient and dangerous.

Burns and Their Treatment.—W. N. Yates (*International Journal of Surgery*) epitomizes the treatment of burns as follows: (1) The shock should be dealt with in the same manner as when due to traumatism. (2) When possible, asepsis should be secured and maintained. (3) All blebs should be opened and the detached epidermis cut away. (4) For purposes of ablution sterile normal salt solution or saturated boric acid solution is perhaps the best medium. (5) As a lubricant and emollient application for burned surfaces he prefers a mixture of castor oil 94% balsam Peru 5%, and carbolic acid 1%. Olive oil may be substituted for the castor oil. (6) Next to the burned surface apply perforated rubber-dam, gutta-percha tissue or oil silk, and over this sterile gauze and retention bandages. Gauze should never be applied directly to a granulating wound for the reason that the granulations grow into its meshes, thereby giving rise to both pain and bleeding upon its removal, as well as the destruction of delicate granulations. Perforated rubber-dam overlaid with moist gauze he has found the most satisfactory.

Treatment of Tuberculous Disease of the Testis, Vesiculæ Seminales, Prostate and Bladder.—Sir Thomas Myles, in his paper read before the British Medical Association, at its recent meeting, reviewed the pathological relationships of tuberculous disease in these various organs. From the point of view of treatment, cases of testicular tuberculosis, the speaker said, might be classified into the following groups: (1) Cases in which there were one or two small nodules in the epididymis in individuals otherwise in perfect health. In these, partial operations were recommended, the disease being removed without regard to anatomical structure. In the event of failure to cure, the whole organ should be removed. (2) Cases in which nodules were present along with disease in the seminal vesicles and prostate. Such cases while quite amenable to operation were rarely benefited to an extent which would make such operations justifiable. (3) Cases of extensive testicular disease with sinuses, but without infection of the prostate or vesicles, were best treated by complete excision of the organ. (4) Similar cases, complicated by disease in the prostate and vesicles, should be left to nature, or the testis might be removed in the expectation that thereby the general health might benefit. (5) Cases in which both testicles were involved made the most severe call on the judgment of the surgeon. Each case was to be decided on its own merits, but the fact remained that, in spite of its social and mental disadvantages, double castration was sometimes indicated, in order to save a life which was valuable to others as well as to the owner. (6) Cases in which there existed tuberculous disease in the lung or elsewhere in the body were exempted from local operative interference. Regarding tuberculosis of the bladder, the speaker was opposed to surgical interference except in so far as it might be required for the alleviation of symptoms. Primary tubercular disease of the seminal vesicles was practically never met with. When associated with disease in other parts of the tract, the removal of the vesicles, although quite practicable, was very rarely indicated.

The Resection of Arteries.—Edoardo Salvia (*Giornale Internazionale delle Scienze Mediche*, July 31, 1902, quoted in *Medical Record*) carried out a series of experiments on dogs, donkeys and sheep, resecting their arteries and removing the portion operated on for purposes of examination from 5 to 35 days later. One fact ascertained was that the lesions vary greatly according to their situation. Another interesting point was that absorption of the silk sutures occurred through the agency of giant cells. The behavior

of the leukocytes varied greatly in the different cases. Operations on small animals were less satisfactory than on large ones, because of the difficulty in keeping the canal of the smaller vessels pervious. In the large animals the operation was perfectly successful, all the tissues—with the exception of the elastic fibers—having shown complete restoration.

A Case of Removal of the Ganglion by Doyen's Method.—William Rose (*Practitioner*, May, 1902) reports a case of this kind. In this operation, the writer states, he has followed closely the account of Doyen's method as given by Tiffany, and with some slight modifications he is satisfied with it. His comments upon the operation included the statement that the incision made is probably a better one than that which he has generally adopted in attacking the ganglion or the roots of the nerve; the zygoma should be divided as far backward and forward as possible. Provision should be made for wiring it subsequently. Doyen merely advises division of the coronoid process and turning it up. This involves blocking up of the wound to some extent by the doubled-over tendon which is most undesirable. The muscle will henceforth be paralyzed, and it is better to remove both it and the coronoid. Rose believes that much of the limitation of the movements of the jaw seen after these operations is due to contraction of the temporal, and therefore he never hesitates to remove it if desirable. He states that Doyen's idea of first securing the trunks of the inferior dental and lingual nerves is a mistake, because much time is unnecessarily wasted. This operation may fairly be claimed to be the outcome of Rose's own method of attacking the ganglion through the base of the skull. The trephine opening was made just outside the foramen ovale and a small extra portion of the bone was removed. At this point the operator placed the trephine opening at a more convenient spot, just above the ptergoid ridge on the great wing of the sphenoid, and then nibbled away the bone as far as the foramen ovale. In this way a much better approach to the ganglion is obtained. Rose compares this method to the various others which have been suggested, and he believes that it offers manifest advantages.

Normal Salt Solution in Surgery.—The use of normal salt solution in surgery dates from 1890. As asepsis is superior to antiseptics, so moist asepsis is preferable to dry asepsis. Therefore Tavel (*Revue de Chirurgie*, May, 1902) experimented with a normal salt solution to which alkalis had been added to bring the alkalinity up to that of the blood. This is absolutely sterile, after having been boiled; prevents adhesions and causes no irritation in operation; provokes leukocytosis; has a positive chemotactic effect exciting antibacterial action. The preparation of the solution, its use in the preparation of instruments, antiseptics, ligatures, etc., follow. Finally, he reports the good results from its use clinically, by subcutaneous injection and intravenously.

Total Bilateral Resection of the Cervical Sympathetic Nerve in Exophthalmic Goiter.—Balacescu (*Archiv für klin. Chirur.*, Vol. 67, No. 1, 1902) reports 55 cases of exophthalmic goiter, in which he operated upon the cervical sympathetic nerve. In 8 patients he simply divided the cervical sympathetic nerve; in 27 he performed partial resection; in 19 he did total bilateral resection, and in one he stretched both cervical sympathetic nerves. After quoting an immense number of statistics, Balacescu concludes that bilateral total resection of the cervical sympathetic nerve is the best treatment for this condition. It should cause complete recovery. Division and stretching of the nerves are useless. When tachycardia is not marked, partial resection of the nerve may suffice. Finally, operation upon the thyroid gland should never be attempted for exophthalmic goiter.

A New Operation for Hemorrhoids.—Potarca (*Revue de Chirurgie*, May, 1902) describes a new operation for hemorrhoids, the idea of Vercesco, of Roumania. After general or spinal anesthesia, the anus is dilated, the dilator remaining in and a special cork cylinder is then introduced. The anal mucous membrane is pinned to this cylinder and it is drawn out by its handle, pulling down the mucous membrane of the lower rectum. An incision is made just below

the pin attachment of the mucous membrane to the cylinder, and the dilated vessels are extirpated after the mucous membrane, on the cylinder, has been drawn out. It is then allowed to return, sutures being put in at the same time. It is advised on account of its simplicity, because it reconstitutes the anal sphincter and because it is much shorter than any other operation.

A Plea for Tenotomy of the Tendo Achillis in Complicated Fractures of the Lower Extremity.—Thomas (*Lancet*, September 6, 1902) urges the employment of tenotomy of the tendo Achillis in complicated fractures of the lower extremity. He calls attention to the great difficulty frequently met with in absolutely reducing fractures of the lower extremity. He has found in many of these, particularly oblique fractures of the tibia, that a tenotomy of the tendo Achillis results in the most satisfactory apposition of the fragments, the operation can be easily done under local anesthesia if it is desired, and that the tendon has always united thoroughly long before the patient is able to use the limb.

PHARMACOLOGY.

The Intravenous Injection of Corrosive Sublimate: Reflections and Experiments.—Serafini (*Münchener med. Woch.*, April 22, 1902) discusses the value of intravenous injections of corrosive sublimate in cases of severe general infection. He determined the maximum nonfatal dose for rabbits, infected them with anthrax and with chicken cholera and then injected 5 mg. for 1800 gm. of rabbit, a proportion of 1 to 360,000. One series of animals was injected 24 hours after infection and there appeared to be no curative effect whatever. A second series was injected 8.5 hours after infection, but there appeared to be no influence upon the course of the disease. A third series was injected 16 hours after infection and again there was no result. Serafini believes that the apparent clinical results must be regarded as purely accidental. The results with chicken cholera were practically the same as those with anthrax, that is to say, the sublimate apparently did not influence the fatal termination.

Why Quinine is Given.—Martinet (*La Presse Médicale*, March 29, 1902) says that quinine diminishes the oxidizing power of protoplasm, inhibiting cell motion and is thus antiseptic in effect. Its antipyretic influence is only marked in malaria. It slows the process of nutrition, causes arterial hypertension and nervous exaltation in small doses, arterial hypertension and nervous depression in large doses. Besides, quinine most probably feebly excites muscular contraction, salivary and gastric secretion.

The Diuretic Action of Theobromine Derivatives.—deBuck finishes (*Merck's Archives*, Sep.) an article on this subject saying that Destrée was the first to make a clinical study of agurin. He administered it in doses varying from 0.25 to 2 gm. (4 to 32 grains) daily in 8 cases, some without circulatory or renal troubles, and some with both circulatory and renal troubles. The following are his conclusions: (1) The double salt of theobromine sodium and acetate of sodium is a good diuretic. (2) It is well tolerated on account of its feeble causticity. (3) It acts in comparatively small doses, so that its effects may be manifested from doses of 0.25 to 0.5 gm. (4 to 8 grains) daily. (4) It acts not only upon the quantity of water eliminated, but upon the solid elements of the urine. (5) The effect persists several days and often one week after the cessation of its administration. (6) The elimination of phosphates in the urine is especially increased. (7) Its action is not constant in renal affections.

Sodium Glycocholate in Diseases of the Liver.—Keown in an article on this subject (*Jour. Amer. Med. Assn.*, August 16, 1902) says that the physiological action of the bile salts can be summed as follows: (1) Injected even in small doses into the bloodstream they produce a widespread disintegration of red bloodcorpuscles with a liberation of hemoglobin; brought into contact with the cells of the body they cause their disintegration. (2) They have a cholagogue action. In fact, they are the only substances known to possess the power and actually cause an

increased flow of bile, both solid and liquid constituents being increased. (3) The presence of bile in the blood acts as a stimulus to the liver cells. (4) In small doses they aid coagulation. (5) In large doses they arrest coagulation. (6) In very small doses they act as vasodilators. (7) In large doses they act as vasoconstrictors. (8) They reduce motor and sensory irritability. (9) They slow the heart-beat by direct action on the heart muscles and the cardiac ganglia.

The Uses of Harlem Oil.—Harlem oil, a mixture of the oils of laurel and of juniper, was in use in Holland in 1698. It is of service in alkaline urinary lithiasis, pyelitis, catarrhal jaundice, hepatic colic, etc. Liegeois (*Journal des Praticiens*, April 12, 1902) gives it in capsule, as an aseptic, cholagogue, analgetic and diuretic.

The Clinical Use of Ipecacuanha Alkaloids.—Wild (*Lancet*, September 6, 1902) discusses the clinical use of the ipecacuanha alkaloids. He states that from his personal experience he has every reason to be satisfied that in the hydrochloride and hydrobromide of emetine we have stable salts of reliable action which can be given in small and convenient doses for expectorants, depressant or emetic purposes. He is not convinced that these salts have a special diaphoretic action. They are best given by the mouth. Cephaeline hydrochloride was found to be less stable for the ordinary uses of ipecacuanha in catarrhal conditions and bronchitis than the emetine salts. The emetic action of cephaeline is so powerful that it is with difficulty that the dose is regulated without causing illness for several days. He mentions that in one case 1-100 of a grain every 4 hours produced nausea and vomiting for 3 days. He also found that the salts of cephaeline were less stable than those of emetine. The hydrochloride and hydrobromide alcoholic solutions of emetine have remained clear, colorless and active for several years. He thinks that the hydrobromide solution is purer than the hydrochloride. The emetine hydrobromide in a 20% alcoholic solution containing one grain in every fluid ounce, he states, has proved very satisfactory.

Olive Oil in the Treatment of Lead Colic.—M. Duplant (*Presse Médicale*, August 20th) in a recent communication to the Medical Society of Lyons (quoted in *New York Medical Journal*) reported a case showing the value of olive oil in lead colic. A man, 45 years of age, had suffered from violent colics for 6 days, and no measures afforded relief; constipation particularly resisting all efforts to overcome it. When M. Duplant saw the patient he found him in the knee-chest position, crying out constantly and vomiting incessantly. Ice, chloroform water and other measures were without effect. M. Duplant caused the patient to drink olive oil in quarter tumblerfuls. He vomited only once afterward, and 2 hours after the commencement of the treatment was greatly relieved. In the evening he had one stool. In the night a return of the pain was rapidly relieved by the oil.

To Administer Castor Oil.—A "Medical Philosopher" gave the following "tip" in the *Midland Medical Miscellany* for May, 1882. Ancient as it is, says the *New York Medical Journal*, it is not very well known, and as the writer has seen it successfully employed, it may be worth resuscitating. "Mix a slice or two of well-browned toast or pie crust with some strong meat extract or gravy; add pepper, salt and herbs, and heat the whole so as to produce an aromatic and flavorful dish. Then mingle the oleum ricini therewith and administer the combination at an appetent moment. Do not reveal its medicinal character; but merely describe it as a 'meal' that the doctor ordered. By the adoption of this plan a patient may be induced greedily to devour castor oil, and to declare through the mouthfuls that castor oil is one of those disgusting things that he never could and never will take."

The Pineapple as a Digestive Aid.—The *Lancet*, (June 7, 1902), states that the partaking of a slice of pineapple af-

ter a meal is quite in accordance with physiological indications, since, though it may not be generally known, fresh pineapple juice contains a remarkably active digestive principle similar to pepsin. This principle has been termed "bromelin," and so powerful is its action upon proteids that it will digest as much as 1,000 times its weight within a few hours. Its digestive activity varies in accordance with the kind of proteid to which it is subjected. Fibrin disappears entirely after a time. With the coagulated albumin of eggs the digestive process is slow, while with the albumin of meat its action seems first to produce a pulpy gelatinous mass which, however, completely dissolves after a short time. When a slice of fresh pineapple is placed upon a raw beefsteak, the surface of the steak becomes gradually gelatinous, owing to the digestive action of the enzyme of the juice. Of course, it is well known that digestive agents exist also in other fruits, but when it is considered that an average-size pineapple will yield nearly 2 pints of juice, it will be seen that the digestive action of the whole fruit must be enormous. The activity of this peculiar digestive agent is destroyed in the cooked pineapple, but unless the pineapple is preserved by heat there is no reason why the tinned fruit should not retain the digestive power. The active digestive principle may be obtained from the juice by dissolving a large quantity of common salt in it when a precipitate is obtained possessing the remarkable digestive powers just described. Unlike pepsin, the digestive principle of the pineapple will operate in an acid, neutral or even alkaline medium, according to the kind of proteid to which it is presented. It may, therefore, be assumed that the pineapple enzyme would not only aid the work of digestion in the stomach, but would continue that action in the intestinal tract. Pineapple, it may be added, contains much indigestible matter of the nature of woody fiber, but it is quite possible that the decidedly digestive properties of the juice compensate for this fact.

Ipecac.—The following is a contribution from Prof. Nobert, published in the *Therapeutische Monatshefte*, August, 1902: In 1660, a merchant named Garnier, brought about 150 pounds of ipecac to Paris, calling the attention of the physician Afforty to its remarkable medicinal properties. It remained for another physician, Helvetius, to recognize in this drug, some years later (1686), a valuable remedy for dysentery; he recommended its use by the distribution of posters. Through the instrumentality of the French court this remedy was officially tried and highly recommended, one of the first patients upon whom the experiments were made was the Dauphin. In view of this Louis XIV awarded the sole privilege of sale of this secret remedy, known as "Radix antidysenterica," to Helvetius. Later the secret was purchased for a large sum. In Germany, Leibnitz (1696) was the first to recommend ipecac in the treatment of dysentery. This action depends upon the presence of ipecacuanhic acid discovered by Willigk in 1850, which forms a very hygroscopic, bitter amorphous substance, identified later by Reich (1863) as a glucoside. This is obtainable from Merck in the form of de-emetized ipecac, which is to be preferred by far to the natural drug as an antidysenteric. Very satisfactory results have followed the use of this preparation in India and the German colonies. The spread of dysentery among the German soldiers in China has caused me to call the attention of my colleagues to this ipecacuanhic acid, which I have been examining pharmacologically. In conjunction with C. Lowin (*Beiträge zur Kenntniss der Ipecacuanha Alkaloide*, Rostock, 1902) I have also extended my investigations to the other alkaloids of ipecac. First, we must distinguish between the true and false varieties of commercial ipecac. Among the latter are the *Richardsonia scabra*, *psychotria emetica* and *ionidium ipecacuanhua*, which do not contain any of the alkaloids of the true ipecac. The two varieties of genuine ipecac contain the 3 alkaloids, emetine, cephaeline and psychotine, which are not present in like proportions in both. The variety, official in the German as well as most other pharmacopeias, is derived from the *uragoga ipecacuanhua*, Baillon (*cephaelis ipecac*, Wildenow), commercially known as Rio ipecac from Brazil. The difficulty in supplying the market with this variety led to the introduction of another genus from New Granada, Columbia,

known as Carthagena ipecac. Lefort declares this to be equally as useful as the Rio ipecac. The various pharmacopœia authorities are of a different opinion, hence this latter variety has been prohibited in Germany and England. I shall attempt to demonstrate which of these views is correct. The alkaloid psychotrine, which, previous to Lowin, has never been in the hands of an experimenter, is found only to the extent of 0.1 per cent. in the Rio and 0.2 per cent. in the Carthagena variety and, owing to its comparative inert properties, will be dismissed from consideration. The two other alkaloids are cephaeline and emetine, which, previously considered as one under the latter title, were first separated by Paul and Cownley, in 1894. Since both these alkaloids differ chemically only through two methyl groups (emetine $C_{30}H_{44}N_2O_4$; cephaeline $C_{28}H_{40}N_2O_4$), it was presumed that they would possess a similar action. According to Wild (*Lancet*, 1895, 23) and also Lowin, both are qualitatively alike, that is by direct contact exert a local irritating action on mucous surfaces. In drug-mills, where the roots are pulverized, special precautions must be observed for the protection of the workmen from the dust which, immaterial as to variety, exerts an extremely irritant effect upon the eyes and air passages. Commercially, the Carthagena variety is largely substituted for the Rio. Greenish pronounced 37 per cent. of the market powders as consisting of the former, the distinguishing feature being a difference in the size of the starch grains. One would think that, since the powder exerts such a strong irritant action on the conjunctiva and that it produces pustulation when applied by inunction, a subcutaneous injection should exhibit an irritant effect upon the subcutaneous connective tissue. This supposition was found by Lowin to be groundless, for neither emetine nor cephaeline produced suppuration. No doubt, both alkaloids are too rapidly absorbed to leave any local changes at the point of injection. After entering into the circulation, both develop a harmful effect upon the heart, the intestines and the kidneys. Lowin found that both alkaloids paralyze without any previous symptoms of irritation, emetine reacting in a much smaller dose than cephaeline; on the other hand, the latter exhibits a stronger inflammatory action on the kidneys than emetine, resembling albuminuria and nephritis. The symptoms produced through the partial excretion of the alkaloids in the intestinal tract are for both alike and consist in inflammation and ecchymosis of the mucous surfaces. Changes in the lungs were only exceptionally noted twice, which consisted in extravasation of blood induced by cephaeline poisoning. The smallest lethal dose of the hydrochlorides was 32 mg. per kilo for cephaeline and 57 mg. per kilo for emetine. The therapeutic value of these alkaloids is only obtainable through administration per os, producing nausea, expectoration and emesis. The alkaloids differ in that emetine produces expectoration, while cephaeline through the stomach a prompt emesis. To return to the question of admitting the Carthagena variety, it might be said that the better qualities of the latter contain a higher percentage of total alkaloids than the Rio, while the poorer qualities show a lower percentage of emetine. As an average, Paul and Cownley found 1.45 per cent. of emetine and 0.52 per cent. of cephaeline in Rio-ipecac, and 0.89 per cent. of emetine and 1.25 per cent. of cephaeline in the Carthagena variety, later, Koerner (*Ber. d. D. Phar. Ges.*, 1902, '80) found 1 per cent. of emetine and 0.5 per cent. of cephaeline in Rio and 1 per cent. each of the former and latter in the Carthagena root. Both investigators agree that the Carthagena ipecac contains twice as much of the emetic cephaeline as the Rio drug, hence is to be preferred as an emetic, while the latter should be selected for its expectorant qualities. Because of the enfeebling action of emetine upon the heart, it is questionable whether the old form of administering ipecac to phthisical patients should be continued, in my opinion the action should be restricted to the larynx and pharynx by gargling or spraying with a solution of the alkaloids. When employing this method, the presence of the emetic cephaeline may be disregarded, because vomiting is only induced when this alkaloid is taken into the stomach. The old infusion is a very poor representative of the drug and should be dropped from use; I prefer the fluid extract of the Carthagena root for external use and the powder in doses of 0.5 to 1 gm. as emetic in pseudo-croup. As to the advisability of intro-

ducing ipecacuanhic acid into the market as a therapeutic agent *per se*, I, in conjunction with Dr. Kimura, am carrying on a series of experiments to determine.

DISEASES OF THE GASTRO-INTESTINAL TRACT.

Treatment of Gastric Ulcer.—Fleiner (*Münchener med. Woch.*, June 3 and 17, 1902) discusses the history of ulcer of the stomach with particular reference to the treatment. Of course the most characteristic symptom is the vomiting of blood, and for a long time all conditions in which the vomit is black were confused together. Hoffman, in 1740, was the first to recognize that in many cases the black vomit is due to the opening of a bloodvessel by necrosis of the gastric wall. Probably the most efficient treatment is dietetic, and this was first systematized by Brinton about the middle of the last century. Later Trousseau suggested the employment of astringents, Ziemssen, of alkalis and opium, and Leube insisted upon absolute rest in bed. The indications, according to Fleiner, are to promote the contraction of the stomach and the regeneration of the tissue. For this purpose the patient should keep absolutely quiet in bed, nutrient enemata should be employed to maintain nutrition, and later the patient is kept on an absolute milk diet until the fourth week, when a small quantity of meat may be eaten, preferably chicken. After the sixth week red meat with a little rice may be given once a day, and between the fourth and sixth weeks the patient may be allowed to get up for short intervals of time. For the after-cure the patient should spend some time in a stimulating climate, although extended journeys are to be forbidden. In concluding his article, Fleiner says that in the course of 10 years he has treated over 300 cases without a single death, without a serious hemorrhage, and without uncontrollable vomiting. He therefore believes that his method is effective. In 27 cases it was necessary to resort to surgical intervention. In cases of obstruction of the pylorus as a result of cicatrices, operation is indicated whenever the bodyweight persistently decreases and the quantity of the urine is reduced. Whenever the pylorus is obstructed either by spasm or cicatrices, the likelihood of cure of the ulcer by internal methods is exceedingly bad. In these cases the stomach contents are retained, and the patient has a strong disposition to tetany. Fleiner reports three cases in which this symptom developed and in which gastro-enterostomy was required. All recovered. When severe hemorrhages occur, the treatment consists in absolute rest with the head low. The patient may from time to time have a little ice. Ergotin may be injected subcutaneously and after 2 or 3 days of absolute starvation, with the exception of nutrient enemata, a small quantity of milk and gelatine may be given by the mouth. In some cases operation is necessary to prevent perforation or fatal hemorrhage, and Fleiner gives the histories of several cases in which this actually took place. Resection of the ulcer, however, does not appear to be satisfactory, as theoretically it should be.

The Diagnosis of Carcinoma of the Colon.—As the only treatment of carcinoma of the colon is surgical removal, it is very important that the diagnosis should be made as early as possible in the course of the disease. The earliest symptoms are usually irregularity of the bowels, attacks of colic and constipation alternating with periods of regularity. There is often hemorrhage, the blood being bright red. Attacks of colic usually occur when the patient is apparently quite well, and very frequently they are associated with tympanites, eructations, loss of appetite and moderate fever. Enemata may relieve the accumulation of fecal masses. Colic, however, is not present in all cases. It may be simulated, according to Cramer (*Münchener med. Woch.*, June 17, 1902), by symptoms produced by excessive indulgence in tobacco. If, however, it is associated with even commencing stenosis of the bowel, there is always rigidity of the intestinal wall from time to time. The peculiar sounds and murmurs produced by stenosis of the bowels are also of considerable diagnostic significance. Cramer has observed them in all 6 cases. These murmurs can sometimes be heard at a considerable distance from the patient, they are of a hissing character, as if a fluid

was being forced through a narrow opening. Tenesmus is frequent in proportion as the tumor is nearer the rectum. It is always an indication for careful digital examination of the rectum, and investigation with the speculum or mirror. It is not usually necessary to employ anesthesia for this purpose. Investigations usually show an injected mucous membrane which bleeds easily, and occasionally small fragments of tissue may be detached which show the characteristic structure of carcinoma. In addition to blood, pus is sometimes found in the stools. The peculiar form of feces produced by stenosis is not always as significant as is generally supposed. It may also be produced by proctitis and cramp. The loss of flesh and weight does not invariably occur. The presence of a palpable tumor is sometimes difficult to determine, because in some cases fecal accumulations have been mistaken for tumors by the most careful and experienced investigators.

CONSTITUTIONAL DISEASES.

Alimentary Regime of the Arthritic.—Pascault (*Gazette d'Hôpitaux Civils et Militaires*, September 6, 1902) believes that the chief cause of arthritic manifestations is overfeeding. This puts the individual into the position of being obliged to burn up more fuel than he is able to do. The body uses as combustibles the hydrocarbons (starch and sugar) and the fats. But it is active only in the presence of the mineral salts (the phosphates, the chlorides, magnesium, potassium, iron, etc.). The value of food depends upon its nitrogenous principles, on the hydrocarbons, fats or salts which each kind contains. The heat-giving principles and the minerals are almost exclusively concerned with foods found in the vegetarian régime. The nitrogenous principles are in quantity always more than sufficient, even in a strictly vegetarian diet. Among the heat producers are sugar, fruits, true foods of force, immediately utilizable and not sufficiently employed; starch, bread and the fats. The mineral salts ought to vary with the temperament of the individual. On account of their presence in green vegetables and in fruits, these foods are absolutely medicinal for the arthritic. Alcohol is not a food. It is an excitant and a poison to the arthritic, and with the vegetable diet one loses the necessity of alcohol. The food ought to be thoroughly masticated. Methodical mastication and the vegetable diet form the true remedy for the condition of overfeeding and dyspepsia of the arthritic.

Gout From Chronic Lead Poisoning.—Widal (*Journal des Praticiens*, April 19, 1902) presented a man of 57, painter for 46 years, with saturnine gout. He had tophi on his fingers and ears, yet was perfectly well except for attacks of gout. His father had also had lead poisoning. He never took much alcohol. Saturnine gout only appears after long years of lead poisoning. After breaking two ribs, a severe attack of gout occurred. Widal believes the function of the liver to be at fault. The prognosis is good, though colchicum and the salicylates have no effect upon it. He intends to give suprarenal gland to see whether uric acid will increase in the urine.

An Experimental Contribution to the Knowledge of the Formation of Sugar in the Diabetic Organism.—Nebelthau (*Münchener med. Woch.*, June 3, 1902) has found that the injection of ammonium lactate, asparagin, benzamid, ammonium citrate and formate into starving dogs increases the quantity of glycogen in the liver. Sodium citrate, benzoic acid and sodium benzoate produce no effect. Dogs, made diabetic by the extirpation of the pancreas, and given plasmon and at the same time asparagin or acetamid or sodium citrate, show a considerable increase in the quantity of sugar excretion. In one case, in which a small amount of pancreatic tissue accidentally remained beneath the skin, the glycosuria was moderate and the effect of the drugs doubtful. Other experiments, practically variations of those described, are also mentioned and the results given in tabular form. Nebelthau believes that the diabetic organism is able to form sugar from the by-products of the disintegration of the albuminous bodies.

The Rational Treatment of Diabetes.—A. Lorand (*Annales de la Société Royale des Sciences Médicales et Naturelles de Bruxelles*, 1902, quoted in *Medical Record*) first discusses

what result is to be looked for in the treatment of diabetes. He gives as his opinion that diabetes is a malady which can never be radically cured. The sugar may be caused to disappear from the urine, but after having obtained this result, we have only caused the disappearance of one symptom of the disease. The constitutional vice, the morbid condition, still persists in other forms. On this basis, every strong emotion, every indiscretion in diet, will resuscitate anew the diabetic syndrome. He speaks of patients from whose urine every trace of sugar had disappeared for a time only to appear again. The object of treatment then of these patients should be to procure for them as long a period as possible in which they do not eliminate sugar and to keep them in as comfortable physical condition as possible. He considers hydrotheraphy as the most valuable therapeutic measure—the use of mineral waters. Diet, muscular exercise, baths, rest from all work, and certain drugs are all recognized. But the most valuable treatment is the preventive treatment. It is of more value to discover a case of beginning diabetes than it is to diagnose a great number of cases of grave diabetes. For to the first patient you can promise a long life, while for the second you can only prolong for some years a life full of suffering.

INFECTIOUS DISEASES.

Treatment of Whooping Cough.—Delhern (*Archives de Médecine des Enfants*, May, 1902) has used ozone inhalation for 28 cases of whooping cough with considerable success. He describes a portable apparatus for the generation of ozone and concludes as follows: (1) Ozone is not a specific for whooping cough, but it possesses very marked antispasmodic properties. (2) It has no effect in the catarrhal stage and should be used only during the paroxysmal stage, 3 to 4 inhalations of 10 minutes each being given in 24 hours. (3) It rapidly diminishes the number of attacks. (4) It diminishes the congestive phenomena of whooping cough. (5) Cases complicated with bronchopneumonia did not have the number of their attacks lowered. (6) The paroxysmal period is often much shortened and the violence of the individual attacks much diminished. (7) Treatment should be continued a fortnight. (8) Given according to the method indicated, ozone is not at all toxic and could even be given in combination with other remedies. In the same number of the same journal, Rogaz and Delmas speak of using compressed air in 50 cases of whooping cough. The pressure in the air chamber increased very gradually and decreased just as gradually, the extreme pressure (to be attained only after several sittings of from one-half to one hour) being one and two-thirds atmospheres. The conclusions drawn run as follows: (1) The attacks are modified in frequency, intensity and duration. (2) The total duration of the affection is much shortened. (3) The catarrhal bronchitis is much diminished. (4) The general condition improves decidedly under the treatment. (5) No accidents have ever attended the use of the treatment and the dilatation of the right heart (so often found in severe pertussis) is no contra-indication. (6) The treatment is applicable to children of all ages.

Erysipelas.—The new treatment for erysipelas (*Dietetic and Hygienic Gaz.*) consists simply in covering the affected area and a portion of the surrounding skin with a thick layer of white vaseline. This is in turn covered with a mask of linen and held in position by means of gauze bandages. The application is made twice a day. The results obtained by this method are very favorable and gratifying when compared with those following other methods, as painting with tincture of iodine, ichthyol or sublimate solution, etc. Fever, as a rule, diminished within 2 or 3 days, pain and tension in the affected parts were relieved, and recurrences were observed with no more frequency than in cases in which other methods were employed. The advantages claimed for this treatment are the absence of pain and irritation which accompanies the application of iodine or the bichloride.

The Treatment of Scarletinal Angina.—The use of carbolic acid injections in the diphtheroid angina of scarlet fever has numerous advocates. Heubner, of Berlin, in-

jects 8 min. of a 3% solution into each tonsil and continues the injections daily until the membrane is cast off or the temperature falls. A 5% solution of carbolic acid is employed in severe cases. Dr. Polijewkoff (*Therap. der Gegenwart*, 1902, No 8) has obtained equally excellent results with the method. He begins the treatment as early as a positive diagnosis will permit. In moderately severe cases the injections have to be given for 4 to 5 days, in severe cases for 7 to 8 days. The urine should be observed in the meantime in order to detect any intoxication from the acid. Little children should not receive more than half a grain of carbolic acid at each sitting (into both tonsils)—older children will tolerate double this quantity. The injections are administered by a specially constructed syringe, which obviates the danger of wounding the deeper structures.

Some Further Statistics Regarding the Effect of Inoculation Against Typhoid Fever in South Africa, With Special Regard to the Question of Age.—Crombie's (*Lancet*, August 16, 1902) article on this subject contains 6 tables which show that the period of greatest susceptibility to enteric fever is from 20 to 25 years of age, this being true for the inoculated as well as for the noninoculated individuals. Before the age of 30, the advantage of single inoculation is distinct. The incidence of enteric fever up to the age of 30 in his investigations was 27 per cent., against 51 per cent. among those not inoculated. He found that beyond the age of 30 the position is the reverse and the advantage is with the noninoculated, the incidence among them being then 14.3% against 27.4% among those inoculated once. He points out that these figures would seem to suggest that, as the period of natural susceptibility to the disease is passing away, inoculation is to be avoided as likely to increase the liability of infection. He further states that the whole question of immunity and the effect of inoculation on immunity, is evidently and admittedly a most difficult and complicated one. He remarks that his statistics point out unmistakable evidence of the clear and substantial advantage that a single inoculation gives to a young soldier under the age of 30, and especially at the age when his susceptibility to the infection is greatest.

Intubation and Tracheotomy in the Treatment of Diphtheritic Stenosis of the Larynx.—After reviewing the literature, Ganghofner (*Jahrbuch für Kinderheilkunde*, May, 1902) reports his results with intubation and tracheotomy for diphtheria in Prague during the past 6 years. The mortality in children under 3 years of age was very high, 30 per cent., in 1900, the lowest year. The mortality from intubation in all children in 1900 was 26.33 per cent. Rarely, only, is primary tracheotomy necessary. Secondary tracheotomy, on the other hand, may be indicated often and is done so frequently immediately after intubation that it is practically a primary operation. This proceeding, absolutely contrary to rules formulated by O'Dwyer, is done less than formerly in Prague. Ganghofner prefers intubation to tracheotomy.

TOXICOLOGY.

Atropine in Lead Colic.—The success of atropine in certain forms of intestinal obstruction has been widely discussed of late years. Dr. Adolph Weber (*Münchener med. Woch.*, XLIX, No. 17) has employed atropine in several cases of colic due to leadintoxication and submits a favorable report of his results. At first he used the extract of belladonna in doses of $\frac{1}{4}$ grain, frequently repeated, but later he has given preference to the alkaloid in doses of $\frac{1}{60}$ to $\frac{1}{20}$ grain. Prompt relief generally follows, with the exception of cases in which opium has been previously administered. In such cases even enormous quantities of atropine remain effectual, being neutralized by the opium. No untoward effects have been observed in the author's cases. The atropine was administered hypodermically.

On the Precipitin in Cobra Venom; a Means of Distinguishing Between the Proteids of Different Snake Poisons.—Lamb (*Lancet*, August 16, 1902) contributes a preliminary account of the precipitin of cobra venom: A means of distinguishing between the proteids of different snake poisons. His experiments are mentioned in detail, and his

article points out the result of his experiments in a tabulated form. He writes: If this biological test should show, on further investigation, that the proteid constituents of cobra venom are exactly the same as those of daboia venom, we must conclude that the proteids contained in these venom are not the toxic constituents of the poisons. The results tabulated in tables II and III go to support this hypothetical conclusion, for at a glance these 2 tables will show that cobra venom forms a precipitin with the proteids of daboia venom which are incoagulable by heat, exactly the same as the precipitin given with the proteids of cobra venom which are incoagulable by heat; and (2) that heated cobra venom forms a precipitin with daboia venom in every way the same as that formed with cobra poison. If, then, this test is a relatively specific test for proteids, we have in all these data, to which he draws attention, evidence which suggests that the proteids of cobra venom are either identical with the proteids of daboia venom or, failing this, that they possess the same haptophoric group. It may be noted if the former alternative were established that it would follow that the proteid substances which are precipitated in these relations are not the toxic elements of the venoms. On the other hand, when we come to look more closely into the results tabulated in tables I, V and VI, a slight difference is seen to exist between the reaction that serum gave with cobra venom and that which it gave with daboia venom. This difference consists in the fact that with the same amount of serum a precipitin is formed with a weaker solution of cobra venom than is the case when daboia venom is used. This fact is shown best in the results tabulated in tables V and VI. The difference is certainly not very great and it is just a question as to whether or not it is sufficient to warrant the conclusion that the proteids of one poison are different from the proteids of the other venom, so different (granting that these substances are the toxic constituents of the poisons) as to lead one to expect the physiological actions of the two venoms to be distinct as they are. He proposes, however, to leave the problem in this position for the present and hopes that the experiments which are now in progress in his laboratory will settle the question one way or the other.

Concerning the Pathology of Chronic Lead Intoxication.—A. Seeligmüller (*Deutsche med. Woch.*, May 1, 1902) first insists upon the importance of chronic lead intoxication in the causation of precocious arteriosclerosis and, further, in the production of habitual abortion. Both of these conditions, as caused by lead intoxication, he considers to be altogether too little known. The present article is a report of a series of cases of lead poisoning that has some unusually interesting features. Lead intoxication from snuff is now comparatively rare; for this reason, a case which the author mentions is of interest. He also mentions a case due to the use of bouillon pots that had lead in the composition; another case which occurred in a physician's wife was due to the use of rouge; another that was remarkable for the rapidity of its onset, the man having worked with the metal only 24 hours before he was taken with colic; and several other similar cases. He also describes at length an interesting case in which the diagnosis between saturnine encephalopathy and latent cerebral syphilis was a very difficult one indeed, there being a history pointing to both lead poisoning and syphilis and the symptoms strongly suggesting a local lesion of the brain.

RADIOTHERAPY.

The Influence of the Röntgen Rays Upon the Different Varieties of Sarcoma.—Coley (*Medical News*, September 20, 1902) concludes that, although the present series of cases is too small, and the time of observation too short, to justify one in drawing any dogmatic conclusions as to the permanent therapeutic value of the Röntgen ray in sarcoma, we are still warranted in stating: (1) That the results in the cases thus far treated prove that the Röntgen ray has a remarkable action upon the growth of all forms of malignant disease, and that this is especially true of sarcoma. (2) That this action in many cases of even advanced and inoperable malignant disease may result in the total disappearance of the tumors, often without any breaking down of the tissues, the new growth being apparently absorbed. (3) Whether the patients have been cured, or the

disease has been merely arrested, to reappear at some future date, is a question that time alone can decide. (4) Recent observations and experiments upon the various forms of carcinoma and sarcoma prove that an agent supposed to be of value only in a very limited class of superficial epitheliomata promises to be as great or even greater value in practically every variety of cancer. (5) While at present there is little evidence to show that deep-seated tumors in the abdomen and pelvis can be cured or benefited by the Röntgen ray, there is still some reason to hope that, with improved apparatus, or with greater knowledge and skill in using the apparatus than we have now, even these cases may be benefited. (6) The Röntgen ray has a very marked influence upon the pain of nearly all types of malignant tumors, causing entire relief in the majority of cases.

Phototherapeutic Apparatus.—Franklin (*Medical News*, September 20, 1902) states that phototherapeutic apparatus should fulfil the following conditions to be satisfactory: (1) It should be supplied with light by artificial means; (2) the lamp should be as powerful as circumstances will permit, as no arrangement of lenses or reflectors will coax power out of a feeble lamp; (3) the lamp should be an electric arc, using chemically prepared electrodes calculated to produce a spectrum powerful in the ultraviolet; (4) all lamps of incandescent principle of whatever design are to be avoided; (5) condensing and collecting lenses should be as large as the nature of things will permit and should be made of rock-crystal or of some medium equally diaphanous to the chemical rays; (6) the cooling apparatus should consist of a layer of water containing no other substance and sufficiently thick to absorb the greater proportion of the heat rays. It should be enclosed in some kind of a vessel which will not interfere with the passage of the chemical rays; (7) the machine should be mounted in such a way as to enable the operator to adjust and turn it in any direction with the utmost degree of precision.

DISEASES OF THE NERVOUS SYSTEM.

On Hydrotherapy in Tabes.—Munter (*Deutsche med. Woch.*, May 22, 1902) gives a detailed discussion of the use of hydrotherapy in tabes. Some of the recommendations which he makes are that in the treatment of pain, salt-baths that are not too concentrated (one per cent.) and are of indifferent temperature are more valuable than concentrated baths that have a higher or a lower temperature. The baths mentioned may be used for three-quarters of an hour. The mild warmth of the bath decreases irritation and is stimulating at the same time. Short cold baths have a tonic effect and are stimulating, but are also exciting. If there is a tendency to very ready exhaustion, the author gives these baths for only 10 or 20 minutes at a time; and the temperature should be kept within very narrow limits. If the stimulation may be increased a little, he gives a half-bath, which is gradually cooled down several degrees. He does not use rubbing during the bath, as too much heat is lost by this and it acts as an irritant upon the nerves. The bath is followed by a rapid douching of the extremities with cold water. This douching should not last more than 5 or 10 seconds. The use of complete or half packs should be watched with care, as their results are likely to be very uncertain in tabes. Packs at lukewarm temperature are commonly, but falsely, considered to be good treatment. They readily cause chills and increase the pain. One should be very careful of cool baths in tabes, because they very easily increase the pain. For the pain, ataxia, paresthesia, restlessness and other nervous disturbances, the author has frequently had good results from the use of faradic baths with slowly increasing current. The employment of higher temperature in tabes is also often of doubtful value. Steam baths should never be used. The sand bath had no indication. The electric-light bath has no especial usefulness, and often increases the pain. A dry hot-air bath is not infrequently useful. In closing, Munter states, that very satisfactory results may be obtained from the hydrotherapeutic treatment of tabes.

The Treatment of Chorea.—Jules Comby (*La Médecine Moderne*, July 2, 1902) discusses the treatment of chorea. Out of 240 patients observed in 8 years, in only 90 was the

disease mild in character. He advises cold bathing or cool, moist applications every morning, a diet containing but little nitrogen, relative isolation and rest in bed. Of the 150 grave cases treated, antipyrine was used in 70, arsenous acid in 54 and other drugs in 26. Two deaths occurred from malignant endocarditis. He gives $7\frac{1}{2}$ grains daily for each year of the child's age, thus 60 grains for a child of 8, 75 for a child of 10, and 90 for a child of 12. He begins by giving 15 grains twice daily and increases rapidly, continuing the antipyrine for from 9 to 15 days only. If there is no improvement by that time, he gives arsenous acid, in a 1-1000 solution, in gradually increasing doses for 10 days. In severe cases he gives the arsenic at once.

The Education and Development of Neurotic Children.—The number of neurotic children seems to be increasing. Nervous disease, alcoholism and syphilis in the parents are the main causes. While convulsions may be neurotic in infants, neurasthenia and hysteria are rarely noted before the fifth or sixth year. With the advent of puberty nervous diseases become quite common. Hammond (*New York Medical Journal*, August 30, 1902) believes that the condition should be treated as soon as the neurotic element is discovered. Such children should have a special education, a diet, mainly of nitrogenous food, but without overfeeding. Firm moral training is also essential. Mental fatigue or exhaustion must be carefully guarded against, in spite of precociousness. These children need repression, mentally. Direct the physical training so that the child will grow up into a healthy person; leave his mental training until his physical health has been fully established. Exercise, hygiene and fresh air are of value.

Etiology and Treatment of Migraine.—Aikin (*Jour. Amer. Med. Ass.*, August 30, 1902) contributes an article entitled etiology and treatment of migraine. He thinks that heredity is an important factor in its etiology. This view is favored by the fact that it makes its appearance in early childhood and continues until after the middle third of life. Dissipation, mental strain, worry, loss of sleep are contributory to migraine seizures. The author favors the following treatment: From the inception to the conclusion of a migrainous attack, digestion is practically suspended. This condition certainly demands the withholding of nutrients with immediate dilution and elimination of the gastric and intestinal contents. Emesis and lavage of the stomach are efficient, but often objectionable to the patient and inconvenient to the physician. Consent is much more readily obtained for emptying the lower bowel with a soapsud enema, followed immediately by high irrigation with large quantities of normal salt solution. This, with small but oft-repeated draughts of hot water by the mouth, continued from 6 to 12 hours, has given better results in his treatment of migraine than any purely drug medication. Between the attacks, daily and copious drinking of water will do more to lessen the severity, if not prevent recurring paroxysms, than any or all drugs with only a minimum of water ingested. It would be quite rational were we to neglect correcting any existing ocular, aural, nasal, gynecological or rectal defect. We must also teach them how to eat and warn them against abuse of their already defective nervous system.

The Question of Trepanation in Cortical Epilepsy.—W. J. Rasumowsky (*Archiv für klin. Chirur.*, Vol. 67, No. 1, 1902) reports 9 cases of trepanation for cortical epilepsy. Of 7 patients he performed the Horsley operation, his results being 4 recoveries, 3 failures and 2 deaths, one from purulent encephalitis, the other from heart failure, some time after operation. The case-histories follow in detail.

TUBERCULOSIS.

A Discussion on the Administrative Prevention of Tuberculosis.—Robertson (*British Medical Journal*, August 16, 1902), in a discussion on the administrative prevention of tuberculosis, recommends: (1) A special notification enactment; (2) a special enactment dealing with the sputum of consumptives; (3) a special enactment dealing with disinfection of houses and (4) a special enactment dealing with the provision of places for the treatment of consumptives.

Newsholme describes the course followed in Brighton, which consists in: (1) Diagnosis by microscopical examination of sputum; (2) notification; (3) measures of cleansing and disinfection; (4) means for preventing infection and re-infection at home or at work; (5) investigation of sources of infection; (6) removal of insanitary home or work conditions; (7) removal of patients; (8) after-treatment of convalescent patients and (9) removal of food infection.

The Serum Reaction in Tuberculosis.—Masius and Beco (*Bull. de l'Acad. de Méd. de Belgique*, February, 1902) have reported a large number of experiments upon animals and their subsequent clinical investigations. After giving long tables of statistics and reviewing the work of Arloing and Courmont, they conclude that Arloing's seroreaction is not pathognomonic of the existence of tuberculous infection. For, while commonly found in the first stage of phthisis, acute military tuberculosis and tubercular pleurisy, it is less frequently obtained in the second and third stages of the disease. It was found in influenza, typhoid and pneumonia also. Yet, early in phthisis and acute military tuberculosis, high dilution may be considered a valuable yet not a certain element in the diagnosis.

What Shall We Do With Our Consumptive Poor? Being a Discussion of Dr. Knopf's Recent Paper.—Meyer (*Medical Record*, September 14, 1902), in his discussion of Dr. Knopf's paper, says: The first difficulty, that of inadequate provision for these patients, has been growing less during the last few years, as is also the second difficulty, the advanced and hopeless stage at which many patients begin the active fight for recovery, because of the earlier recognition of the disease. He agrees with Dr. Knopf in most particulars, especially accentuating the point that a large porportion of cures may be effected without exhausting journeys or complete isolation from the patient's family. He believes that finally each county may solve its own tuberculosis problem at home. To make this possible he suggests: (1) Institutions beyond the city limits for the incipient and presumably curable cases of tuberculosis, of which the Bedford Sanatorium of the Montefiore Home is a good example. (2) Institutions within the city limits for advanced or presumably incurable diseases, like the Blackwell's Island institution in charge of Commissioner Folks, of the Department of Charities, New York City. (3) A series of separate wards in the city hospitals to act as clearing houses for cases of doubtful diagnosis and prognosis. (4) A system of financial aid to the families of adult patients to encourage early treatment.

Observations on the Clinical Course of Pulmonary Tuberculosis as Affected by Modern Methods of Treatment.—Philip (*Practitioner*, May, 1902) presents a paper dealing with this subject. He limits his discussion to the question of temperature and states that prolonged observations on the clinical course of the disease treated on open air lines during the past 10 years have demonstrated the necessity of changing our views upon this subject. As to the method of taking temperature, he believes that both oral and axillary readings are satisfactory and to be preferred to rectal. He presents 4 propositions well attested by a large number of illustrative case-reports. These are: (1) The majority of cases of pulmonary tuberculosis treated in the open air show a remarkably rapid return of temperature to the normal. (2) In a certain percentage of cases the fall of temperature does not occur so rapidly. Even if delayed for several months an ultimate return to the normal is frequent if proper treatment be maintained throughout. (3) The temperature may remain almost continuously normal even when abundant signs are present suggestive of the existence of considerable disease in a state far from latent. (4) When the temperature is disturbed either continuously or recurrently, such disturbance should not be attributed vaguely to tuberculosis. A superadded cause should be sought and may commonly be found. Philip's paper is accompanied by a number of diagrams representing the pulmonary involvement of the cases quoted and a considerable number of temperature charts.

DISEASES OF KIDNEYS.

Dietetic Treatment of Kidney Diseases.—Kaufmann and Mohr (*Zeitschrift für klin. Medizin*, Band XLIV, Hefte 5 u. 6) report their personal observations on 7 cases, and also mention the cases previously reported by v. Noorden and Ritter. In all of these, they investigated the condition of nitrogen metabolism—particularly nitrogen elimination, the excretion of albumin, of phosphates and usually of uric acid, when using dark meat, light meat and milk. They reach the following conclusions: An accurate judgment cannot be formed upon the results of such a study, because patients with kidney diseases usually show marked variations in elimination from time to time, without reference to the diet. It seems proper, however, to decide from the figures that the best elimination and the least albuminuria are present when a milk diet is used; but this was not notably the case and the conditions varied decidedly, the most satisfactory conditions at times being found with milk, at times with dark meat, and at times with light meat. The authors admit that it may be objected to their investigations that they were of too short a duration; but it was impossible to carry them through a prolonged period. From the clinical results which they have obtained during a long series of years, however, they believe that one can allow kidney patients to choose the form of meat which they prefer. They usually choose white meats only; but when allowed their choice, patients eat better and are kept in better nutrition. The authors believe that the generally accepted rule that dark meats are especially harmful for kidney cases must be considered to be unfounded. In this, they refer only to chronic and subchronic cases, and do not touch upon the question as to whether one should allow patients with acute nephritis to take meat at all.

GENITO-URINARY DISEASES.

Rational or Dietetic Treatment of Bright's Disease Contrasted With Surgical Intervention.—W. H. Porter (*Medical Record*, September 27, 1902) draws his conclusions from a study on this subject as follows: (1) To analyze thoroughly the results of treatment in Bright's disease one must have a clear conception of the histology and physiological functions of the kidney. (2) Its complex pathology must be clearly understood. (3) All the etiological factors must be given full consideration. (4) The etiological factors are numerous and very complicating in their action. (5) Only one, if any, of these can be reached by surgical intervention. (6) Most of the etiological factors can be modified or removed by well-directed dietetics and therapeutics. (7) Histologically speaking, Bright's disease can be cured. (8) Physiologically speaking, the etiological factors can be modified, and often removed, the symptoms held in abeyance, while the renal glands perform their functions normally. (9) Bright's disease is by nature an oscillatory malady, accompanied with frequent remissions and exacerbations. (10) Remissions must not be mistaken for cures. (11) Rational dietetics and therapeutics offer the largest possibility for a complete physiological cure. (12) A well-regulated mixed diet, especially if composed largely of the animal class, when it can be tolerated, yields the best results. (13) All therapeutics to be rational must be directed not at the pathological lesion *per se*, but toward establishing a more perfect digestion and metabolism and a decrease in the work imposed upon the renal glands.

DISEASES OF THE EAR, NOSE AND THROAT.

Moure's Operation for Deflected Septum.—Moure's operation consists in making a free incision through the septum nasi upward of an inch in length parallel with the floor of the nose, and another along the roof of the nose for about the same length. The wedge-shaped fragment thus outlined is forced over toward the roomy side of the nose with the finger. Pegler (*British Medical Journal*, August 30, 1902) uses a specially constructed forceps and India-rubber splints.

Hay Fever.—Thost, in a discussion on hay fever, (*Münchener med. Woch.*, April 29, 1902), states his belief that the attacks are due to the blooming of certain forms of vegetation. In proof of this he mentions the fact that hay

fever will occur in all predisposed persons on the same date in any given locality. As a result, in different parts of any country the attacks will come on at different days. It is not so certain that the direct cause is the poison of the plants, because examination of the nasal mucus failed to show the presence of pollen, and flowers which contain very little pollen, such as fullblown roses, often cause disagreeable symptoms similar to those of hay fever. It seems more likely that the cause is the odor of plants, or rather the ethereal oils to which the odor appears to be attached. In fact, the alcoholic extracts of some of these oils are capable of producing the symptoms of hay fever. Nearly all persons predisposed have some local disease of the nose, particularly a tendency to swelling of the mucous membranes. The general predisposing causes appear to be severe physical work, severe intellectual work or exhaustion as a result of disease. In regard to the etiological relation of gout, in 400 cases Thost found only 30 who suffered from the disease and only 53 who stated that the disease was common in their family. This is very different from the statistics given by English physicians.

Remarks of Cholesteatoma of the Middle-Ear.—Grant (*British Medical Journal*, September 3, 1902) says that this condition is treated by dehydrating measures, unless pressure symptoms arise when operation is demanded. A free opening after the manner of Stack is made and the cavity inspected. In cases in which a shiny uniform membrane is found lining the cholesteatoma cavity, this should be preserved. Should the membrane be pulpy and not homogeneous, it should be completely eroded and the cavity lined by skin grafts.

The Treatment of Deafness of Middle-Ear Origin.—Watson's method (*British Medical Journal*, August 30, 1902) of treating deafness of middle ear origin is as follows: A half dram of equal parts of rectified spirit and glycerine is instilled into the ear and the same quantity rubbed into the skin of and around the ear. After the excess of fluid has been removed, 5 to 10 drops of warm myelocene are dropped into the ear and about 20 drops rubbed on the outside of the ear, the application occupying about 10 minutes. Jaw movements are employed because of their favorable action on middle ear circulation, and the hearing is repeatedly exercised. This treatment is usually applied daily. The Eustachian catheter is employed at intervals. Mechanical appliances may be substituted for the digital manipulations and pneumatic massage of the membrane conducted simultaneously in the outer ear, and in the middle ear through the Eustachian tube may be utilized. The principles of this treatment are the promotion and maintenance of a more vigorous circulation in the middle ear, thorough aeration of the nasopharynx and middle ear and the restoration of a greater degree of flexibility to the tympanic membrane and associated structures.

Nasal Dysmenorrhea.—Linder (*Münchener med. Woch.*, June 3, 1902) has observed a number of cases of nasal dysmenorrhea in which it was possible to overcome the pain by the cocainization of the nasal mucous membrane. In order to exclude a possible suggestive action, he employed the treatment in 10 selected cases, all of which responded to the cocainization very readily. These were subsequently treated with ordinary water and in 2 cases exactly the same effect was produced, in 6 a somewhat milder effect and in 2 no effect at all. On the third occasion the patients were told that they were being treated with water, and no effect was produced in any of them. It therefore appears that the results of cocainization of the nose for dysmenorrhea are also purely suggestive.

PEDIATRICS.

The Malnutrition of Tuberculous Children.—Crandall (*Archives of Pediatrics*) arrives at the following conclusions: (1) Wasting, anemia and other evidences of malnutrition are constant accompaniments of tuberculosis in children. (2) These symptoms may occur in infants long before local diseases can be detected and occasionally no local signs whatever are manifest before death. (3) In infants, tuberculosis shows a special tendency to be disseminated or to conceal itself in deep tissues, as the lymphnodes. The

disease may then run a course identical with simple marasmus. (4) In some cases a period of anemia and wasting is followed by a stage of irregular fever, after which local lesions appear usually in the lungs. (5) In other cases tuberculosis in children begins with well-marked local manifestations, particularly pneumonia. In these, evidences of malnutrition appear promptly and are usually progressive. The anemia of tuberculosis, whether it appears before or after the occurrence of other symptoms, is usually a simple anemia and presents nothing characteristic. (6) A diagnosis of tuberculosis cannot be made from the character of the anemia alone or the malnutrition. Persistent and increasing malnutrition in a child without discoverable cause is always suggestive of tuberculosis. Anemia in adolescents should receive prompt and active attention, for it vastly increases the danger of tubercular invasion, which is particularly common at that period of life.

Gelatine Treatment of Melena Neonatorum.—E. Fuhrmann (*Münchener med. Woch.*, September 2, 1902) has treated 3 cases of this disease by the means of subcutaneous injections of gelatine. One patient died and two recovered. All 3 cases were without doubt *melena vera*. The fatal case was, at the onset, of moderate severity. The gelatine was promptly used, but had apparently no effect upon the hemorrhages. Of the nonfatal cases one was of moderate severity. The other was mild and would have undoubtedly spontaneously recovered without the use of the gelatine. In estimating the value of gelatine in the treatment of this disease it must be remembered that many cases recover spontaneously under any or even no treatment; nevertheless, the value of this treatment is not to be underestimated. Many reports have been made within the past few months concerning its utility, and the second case here reported without doubt proves its efficacy. In using gelatine in the treatment of hemorrhages the 2 per cent. solution should always be made by the means of physiological salt solution, as local complications are seldom observed when such is used.

The Treatment of Variola.—Barbary (*Gaz. Heb. de Méd. et de Chirur.*, May 25, 1902) advises bathing the entire body with a 1 to 200 solution of mercury bichloride twice daily during the course of smallpox. Vaporization of a 1/4000 solution twice daily for the face and washing of the eyes, the nose and the ears. After the vaporization, the following solution should be applied to the parts presenting the eruption, including the face: Sodium salicylate, 5.0 gm.; cherry laurel water and alcohol, of each 10.0 gm. Internally he uses a soup-spoonful of syrup of phenol twice a day. For the fever he gives salol, 0.20 gm. (3 grains); quinine hydrobromate, 0.25 gm. (3¾ grains). Milk every 2 hours, alternating with coffee or vichy. By this therapeutics he has obtained rapid cure, rapid subsidence of temperature, absence of suppuration, freedom from complications and freedom from scars.

The Treatment of Torticollis.—E. Noble Smith (*Lancet*, June 28, 1902) advises the division of the sternomastoid muscle in order to cure the deformity of congenital torticollis. A retention apparatus is usually unnecessary, either before or after the operation in uncomplicated cases. The open operation is usually preferable, the head being held in the corrected position by means of sand bags until healing is complete. Massage and exercises may be necessary in the after-treatment.

The Treatment of Bronchopneumonia.—Zangger (*Lancet*, June 28, 1902) claims that hydrotherapeutic treatment will shorten the duration of bronchopneumonia. The bathing should be instituted early and should not be continued longer than 2 or 3 weeks if the case does not improve. The baths should be about 86° F., and should continue for 2 or 3 minutes, then reducing the temperature of the water to 76° F. If pneumonic symptoms continue, the bathing must be repeated at intervals of from 8 to 24 hours. For the relief of bronchitis, he employs cross packs which are applied in the following way: A linen bandage is well wrung out of cold water and is applied to the chest thus: (1) Beginning under the right axilla, passing over the left clavicle and around the chest, back

the right axilla; (2) then around the chest horizontally; (3) from the right axilla to the left axilla and over the neck to the left clavicle to the front. The pack is allowed to remain on the chest over night. On removing it, the chest must be rubbed with a cold, wet towel and then covered dry.

The Treatment of Diphtheria.—Bacaloglu (*Revue de médecine*, February, 1902) has obtained good results with antitoxin in diphtheria. He does not wait for a bacteriological report. He uses hydrogen dioxide locally, diluted with an equal quantity of water.

The Treatment of Whooping Cough.—In the treatment of whooping cough, Bacaloglu (*Revue de Médecine*, February, 1902) uses a few drops of the following tincture in a little water as an antiseptic wash for the nose and mouth daily: Tincture of aconite root, tincture of drosera and tincture of belladonna, of each 10 gm. (2½ drams). Bromoform gives good results, but it is necessary to handle it with care. He uses the following formula: Bromoform, 1.50 gm. (22 grains); 70% alcohol, 50 gm. (1½ ounces); simple syrup, 100 gm. (3 ounces). He gives from 1 to 3 teaspoonfuls of this mixture daily, according to the age of the child.

An Epidemic of Diphtheria.—Thierry and Bertail recently reported an epidemic of diphtheria in and near Montreuil, France. *Bull. Médical*, March 19, 1902. On May 2, 1900, a patient with diphtheria arrived from Dijon. Up to March 9, 1902, 79 cases of diphtheria had occurred. The patients received from 10 to 20 cc. of antitoxin when first seen, and in many cases this was repeated in one or two. Of the 79 cases, but 2 died, and one of these was the original patient from Dijon. Slight paralysis occurred in but 4 cases.

Treatment of Rachitis With Phosphorus.—Ungar (*Münchener med. Woch.*, June 17, 1902) criticises the article of one who reported 2 cases of rachitis treated with phosphorus in which he believes the symptoms of phosphorus poisoning occurred and also a case reported by Nebelthau and Franke, of a similar nature. Ungar does not believe the clinical symptoms are typical of phosphorus poisoning. He thinks that the absence of any benefit is probably due to the unfavorable circumstances under which the children were living, and he believes that phosphorus should be given in rachitis in the usual doses, that is to say 0.005 gm. per day (1-130 gr.). He does not believe phosphorized cod-liver oil is better than pure phosphorus.

OBSTETRICS AND GYNECOLOGY.

The Care of the Perineum During Labor.—Effa V. Davis (*Revue de médecine*), during 10 years of active obstetrical work, has taken the following precautions to prevent rupture. All primiparæ and most multiparæ are placed in the left lateral position as soon as the presenting part has reached the pelvic floor, or begins to strain on the perineum. Bromoform is administered at the same time. Direct pressure is applied to the head when it appears at the vulva, a slight advance is permitted at each contraction. Pressure is applied to the jaw and lower part of the child's head by the fingers of the right hand carries the whole head snugly under the pubic arch and keeps the degree of extension or flexion just as desired to direct the occiput directly through the outlet, and allow the nape of the neck to pass under the pubis before the sinciput passes the perineum, which ensures engagement of the outlet.

The Care Necessary After Puerperal Hemorrhage.—Keim, in an article on this subject, (*La Presse Médicale*, April 5, 1902) says when serious hemorrhages occur after labor, the indications are to stop the hemorrhage and to prevent recurrence. The largely distended bloodvessels must be reduced to normal. Repeated hemorrhage, such as occurs in placenta previa, is more dangerous than one severe hemorrhage. There are pallor, oligemia, lowered temperature, cyanosis, dyspnea, small rapid pulse and symptoms of cerebral anemia, delirium, etc. To prevent syncope the patient should lie upon her back, without a pillow, the foot of the bed elevated, bandages should be applied to the

legs, friction to the skin and oxygen or fresh air inspired. Finally, salt solution may be given subcutaneously or intravenously. Even then collapse and death may follow. Should she regain consciousness, alcohol, caffeine and digitalis should be given. Later, rest, arsenic and strychnine will lead to recovery.

Retrodisplacement of the Uterus.—The nonoperative treatment of the uterus, says Davenport (*American Gynecology*, July, 1902), has its place and an important one in our practice. "The only method which merits an extended consideration is that by pessary. There are cases which are better treated by pessary than by operation and there are not a few cases in which operation is the better, but in which it is refused, and we are forced to use some non-operative measure. For in the vast majority of such cases the treatment by pessary is the only one that holds any prospect of cure. In selected cases the chances of definite cure should be at least 50 per cent., but if we include in our statistics those cases in which we are forced to employ pessaries when our better judgment would select operation, the percentage of cures would not be more than 33 per cent. Patients who refuse operation should not be left untreated, for, even if a cure cannot be expected from the use of the pessary, it will often make the patient comfortable. Care in the selection of a pessary and attention to the after-treatment will aid materially in the success of this method.

The Present Status of the Pessary in the Treatment of Displacements of the Uterus.—Davenport (*Boston Medical and Surgical Journal*, August 7, 1902) gives a few general principles, which, if adhered to, will make the treatment of displacements by pessary a success in the greatest number of cases possible. (1) Study the cases. Determine the probable length of time that the displacement has lasted, its possible cause, the symptoms it has caused, their order of occurrence and the relative importance of the general and local manifestations and from these data form a careful opinion as to the chances of cure by one or the other method of treatment. (2) In a case of retroversion or flexion, always replace the uterus before adjusting the support. The pessary should not be relied upon to do this, as only in the rarest cases will it be possible. (3) In choosing a support, choose one which fits exactly if possible, but, if not, have it rather too small than too large. (4) The ideal pessary is one which supports the uterus perfectly and without the patient being conscious of its presence. (5) The patient should be kept under observation while she is wearing the pessary and seen at regular intervals, preferably after each monthly period, for the cleansing of the support and its replacement. (6) When it is deemed wise to make an attempt to go without it, it should not be removed at once, but a smaller one substituted to be worn a month and then a still smaller one, which may then finally be removed.

Continuous Vomiting of Pregnancy.—Condamin (*Indian Med. Record*) advises absolute rest of the stomach with complete suppression of all liquid and solid nourishment for 8 or 10 days. During this time 3 or 4 quarts of artificial serum are injected daily, preferably into the rectum. If intolerance should appear on the part of the rectum, a few drops of laudanum may be added to the serum, or it may be administered subcutaneously. About the tenth day a few swallows of liquid food may be allowed, and the ordinary diet may be gradually resumed. The author reports one typical case and believes that many cases may be carried to term in this way, in which, otherwise, abortion would result or would have to be induced.

The Surgical Treatment of Puerperal Pyemia.—Trendelenburg believes (*Münchener med. Woch.*, April 1, 1902) that puerperal pyemia should be treated by the same methods as those which proved so brilliantly successful in pyemia secondary to middle ear disease, that is to say, the involved venous sinuses should be removed. He gives the history of the various forms of treatment that have been suggested for overcoming this condition, describes the methods of operation for exposing various venous trunks and discusses the indications for the operation. These are essentially the same as are the indications in septic men-

ingitis. The first chill is a signal for operation and hesitation is no longer justified. Whether the operation should be performed on the right or left, or on both sides, can only be determined by careful physical examination. The frequency of its distribution in 21 necropsies was: Bilateral, 14; unilateral, 7 cases. Therefore, in all doubtful cases the bilateral operation should be performed. In the more marked cases, operation may be successful comparatively late. He mentions the case of a woman, 35 years of age, who aborted in the third month of the seventh pregnancy. A week later the cavity of the uterus was evacuated, and 10 days after this a diagnosis of septic pyosalpinx was made. Tenderness was obtained in the right parametrium, and a tumor was also recognized in this situation. An operation was performed and an abscess in the right lateral ligament evacuated, in the pus of which streptococci were found. Various thrombosed veins were also ligated and extirpated, and for 10 days the patient had no further chill. Then a chill occurred, which was repeated several times, and a second operation was performed. The right ovarian vein was exposed from the lower end of the right kidney downward. A portion of the vein, 5 cm. in length, was resected. It contained a thrombus in which were found streptococci. The patient rapidly recovered and was discharged well.

OPHTHALMOLOGY.

The Treatment of Convergent Squint in Hospital Practice.—James (*Lancet*, August 2, 1902) writes on the treatment of this condition. He contends that the most important reason why the treatment of convergent squint is so unsatisfactory is that no stereoscope of suitable construction and small cost is at the command of the ordinary hospital patient for home use. The author presents a description, which is accompanied by an illustration of the stereoscope. He writes that this instrument is constructed of the cheapest material and can be used in cases of convergence of higher degree. It consists of 2 mirrors, 8 centimeters square, united by a hinge. To the lower border of each mirror is attached a brass bar, 15 centimeters long, with a clamp obliquely placed at its extremity. The bar is freely movable, but can be fixed at any angle to the mirror by a toothed stay which gives additional firmness. The angle at which it is usually placed is 115° . When not in use, the hook is undone and the instrument can be folded into a convenient shape. The stereoscope figures employed vary much in size according to the visual acuity and youth of the patient. Duplicate colored scrap figures on glass slides are very useful, parts of each figure having been carefully cut out. It is of great service to use letters on each glass slide alongside or across the figures and leave gaps between them. On fusion in the mirrors they are seen as short words such as "Tom," "Bob," etc., and act as valuable controlling tests in children who can read. Almost any object the ingenuity of the experimenter may devise can be adapted to the instrument. The ordinary photographic views in the shop can be employed. They are first cut in half and transposed, right half in left clamp and vice versa. Controlling dots are useful, of course, with these. The oblique position of the clamps presents the object nearly square in the mirror to the observer and facilitates their fusion.

Copper Citrate in Trachoma.—Encouraged by the excellent results of using silver citrate instead of silver nitrate, von Arlt (*Klin. therap. Woch.*, IX, No. 15) has tried to substitute the citrate for the sulphate of copper in the treatment of trachoma. Copper citrate is a green, very light powder, containing about 35% of copper. It is employed in the form of an ointment (5 to 10% strength), which may be put up in tubes and expressed drop by drop into the eye. The lids are then closed and massaged for half a minute. The pain experienced is very slight. The procedure is repeated two or three times. The eyes may be washed an hour after application. This treatment can be carried out by the patients themselves. The effect on pannus of trachomatous origin is startling. In 7 to 12 days the opacities disappear. The conjunctival alterations also show a marked improvement after one or 2 weeks' treatment, the secretion becoming less profuse and the granules or follicles diminishing in size. No scar formation takes place. In severe cases this treatment may be reinforced by applications of silver citrate.

Thiosinamin. Clinical and Experimental Observations with Reference to Corneal Opacities and Other Ocular Lesions.—Suker states (*Journal of the American Medical Association*, August 9, 1902) that this drug is indicated in the following class of cases: (1) Corneal opacities from any cause whatsoever. (2) Cicatricial contractions of the following trachoma. (3) Certain intra-ocular inflammations, as exudative choroiditis. (4) Symblepharon. (5) Capsular opacities following cataract extractions (experimental). (6) Ectropion, especially cicatricial. (7) Pterygitis. Its actions are the following: (1) It is a marked tonic. (2) It favors the absorption of exudates, transudates and infiltrates. (3) It clears up corneal nebulosities. (4) It produces local reactions without general systemic disturbances. (5) It reduces granular swellings. (6) It causes cicatricial tissue to become soft and pliable.

The Nature and Treatment of Pterygia.—McReynolds, in an article on this subject (*Journal of the American Medical Association*, August 9, 1902), says that his operation is a modification of that devised by Desmarre, but it differs in some very important features and these constitute the most important elements of its value. The operation is as follows: (1) Grasp firmly the neck of the pterygium with strong but narrow fixation forceps. (2) Pass a Graefe knife through the constriction and as close to the globe as possible, and then, with the cutting edge turned towards the cornea, shave off every particle of the growth smoothly from the cornea. (3) With slender straight scissors, divide the conjunctiva and subconjunctival tissue along the lower margin of the pterygium commencing at its neck and extending toward the canthus a distance of $\frac{1}{4}$ - $\frac{1}{2}$ inch. (4) Still hold the pterygium with the forceps and separate the body of the growth from the sclera with any small noncutting instrument. (5) Separate well from the sclera the conjunctiva lying beneath the oblique incision made with scissors. (6) Take black silk thread, armed at each end with small curved needles, and carry both of these needles through the apex of the pterygium from without inward and separate from each other by a sufficient amount of growth to secure a firm hold. (7) Carry these needles downward beneath the loosened conjunctiva lying beneath the oblique incision made by the scissors. The needles, after passing in parallel directions beneath the loosened lower segment of the conjunctiva until they reach the region of the lower fornix, should then emerge from beneath the conjunctiva at a distance of about $\frac{1}{8}$ - $\frac{1}{4}$ of an inch from each other. (8) With the forceps lift up the loosened lower segment of the conjunctiva and gently exert traction upon the free ends of the threads, which have merged from below, and the pterygium will glide beneath the loosened lower segment of the conjunctiva; the threads may then be tied and the surplus portions of thread cut off, leaving enough to facilitate the removal of the threads after proper union has occurred.

DISEASES OF THE RESPIRATORY TRACT.

The Influence of Suprarenals in Pneumonia.—E. A. Gruber (*Medical Record*, April 5, 1902) reports 6 cases of pneumonia in which suprarenal extract was employed. He concludes from his observations that in this remedy we have a most valuable heart stimulant which we are now at liberty to use in cases of impending heart failure, impeded pulmonary circulation, as in pneumonia, and with co-existing renal inflammation. He has observed a temporary peripheral increase of bloodpressure in a few cases, but this was not permanent.

The Control of Hemorrhage in Hemoptysis.—Niedner (*Deutsche med. Woch.*, June 5, 1902) reports several cases of hemoptysis in which he has, with excellent results, used a system of complete strapping of the affected side. He first, by a rapid examination, determines from which lung hemorrhage comes. He then passes strips of adhesive plaster over the apex and then around the remainder of that side of the chest, making the chest as completely fixed as possible. A difficulty encountered in one case was the loosening of the straps by the excessive sweating of the patient, and this cannot be overcome; but when the straps hold well, they apparently aid decidedly in controlling the hemorrhage; and it is reasonable to think that they would because they give as complete rest to the affected lung.

possible. They have the advantage over gelatine injections that they are not at all dangerous and can be used by anyone, without any special apparatus. The author believes that, in one instance in which hemorrhage stopped after the use of gelatine, the result was actually due to the fact that the gelatine infiltrated the tissue over the affected side of the chest, where the injection had been carried out; and, from its mechanical effect and from the pain which it caused, produced complete quiet of that side.

DISEASES OF THE HEART AND BLOODVESSELS.

Influence of the Light-Bath on the Circulatory Apparatus. Ferdinando Battistini (*Rivista Critica di Clinica Medica*) describes the light-bath according to Kellogg's method, with forty lamps rendered incandescent, by a current of 100 to 110 volts. He begins with a temperature of 30° C., progressively increasing up to 50° C., and rarely to 60°. The duration of the bath is from 15 to 20 minutes. In all cases profuse sweating occurs promptly. The pulse and the respiration are increased in frequency. The effect on the bloodpressure varies. In persons whose circulation was normal, or in whom arteriosclerosis was in the initial stage, the pressure was very slightly increased, or else not affected. In a second group of patients, apparently normal or else suffering from grave arteriosclerosis, the pressure was as high as 35-60-70 mm. of mercury. Arrhythmia was noticed in some cases. The cardiac area was, as a rule, not affected. The sphygmographic curve was usually flatter during the light-bath, and occasionally there were signs of diastolic murmurs. The author concludes that this method of treatment should be used very cautiously on patients with a weak heart, or on those suffering from arteriosclerosis.

SERUM THERAPY.

On the Results Which Have Been Obtained by Antityphoid Inoculation.—Wright (*Lancet*, September 6, 1902) contributes an article on this subject. A table presenting the statistics of antityphoid inoculation is appended. He reaches the following conclusions: There is a risk that in the case in which the patient's resistance is naturally low or has been reduced, as is often the case, by a previous attack of typhoid fever; (b) in the case in which the patient is inoculated with a full dose of vaccine in actually infected surroundings; and (c) in the case in which the patient is inoculated with an excessive dose or is re-inoculated too soon, the system may be left more open to infection at a period when it stands in need of protection. The facts set out in Column 6 of Table II, and possibly some of those which have arrested the attention of Brombie, seem to indicate the reality of this risk. It must be the task of the future to try to minimize the risk, on the one hand, by working out an adequate method of standardization of the vaccine, and, on the other hand, by combining with the study of the changes produced in the blood by antityphoid inoculation the study of the blood in the typhoid convalescent, and the study of the gradual success or failure of the process of immunization in the actual typhoid attack. It is necessary to insist on the urgency of this task.

TROPICAL MEDICINE.

The Liverpool School of Tropical Medicine.—Major Ronald Ross, F. R. S., late I. M. S., sailed from Liverpool on February 22 to join the expedition which is now engaged in sanitary work on the West Coast of Africa under the auspices of the Liverpool School of Tropical Medicine. Major Ross has gone out to make an examination of the drainage operations now being carried out in Sierra Leone, and he intends also to prepare statistics as to how the work is progressing. He also purposes to inquire carefully whether any change for the better has taken place in the health of the natives. Among other places he will proceed to the Gambia to examine the drainage there. Sir George Denton, the Governor of the Gambia, and his staff, have been engaged for some time in carrying out drainage operations in that colony. Dr. Logan Taylor has been in Sierra Leone for the past 8 months, and, fortunately, has not suffered from malaria—a fact which points to the success of the drainage operations carried out under his directions. Major Ross intends to return to Liverpool

at the end of April. Prior to his departure for West Africa he expressed the opinion that, if the Government continued the work of drainage and pushed forward other improvements, the health of the natives would be considerably improved, and the health of the resident Europeans in West Africa would also be safeguarded. Major Ross was seen off by Mr. William Adamson (vice-chairman of the school), by Professor R. W. Boyce, of University College, Liverpool, by several students of the school, and a number of gentlemen who have taken an interest in the work of the expedition. (*Lancet*).

DISEASES OF THE PERITONEUM.

Treatment of Tubercular Peritonitis, With Report of an Unique Case.—Porter (*Jour. Amer. Med. Ass.*, September 13, 1902) discusses briefly the treatment of tubercular peritonitis, with a report of one case. It is thought that the curative effect of light and air after the abdomen is opened is generally underestimated. The ascitic forms of the disease have yielded the best results from operative interference and the ulcerating and caseating forms the worst results. Other tubercular foci are benefited by the opening of the peritoneum. In operating for this condition the incision should be free, adhesions should not be disturbed unless for the removal of tubercular deposits or for the relief of bowel obstruction, drainage should be employed, irrigation with hot water may be beneficial. Chemical antiseptics should not be used unless there is a mixed infection. The abdominal cavity should be freely exposed to light and air for from 10 to 15 minutes. The author believes that both the X-rays and the ultra-violet rays of Finsen will be found of great value in this condition. The case reported is that of a girl, 14 years of age, who suffered from tubercular ascitic peritonitis of the lower abdomen and pelvis, accompanied with hernial protrusion, the sac of which was the seat of tubercular disease. The case was cured by excision of the sac, obliteration of the canal, median laparotomy and removal of the fluid.

DERMATOLOGY.

Four Cases of Lupus Treated with Radium.—Danlos (*Annales de Derm. et de Syph.*, July, 1902, page 723) draws the following conclusions from his use of radium in lupus. He believes that radium will have an important future in dermotherapy, when the price of the metal is reduced so as to make its use permissible. The affections in which it will probably be of greatest benefit are lupus vulgaris, lupus erythematosus, hypertrichosis, perhaps epithelioma and nevi. The results from the use of radium of weak activity (1,000-1,800) have been for the time being favorable, but have been followed by relapses. With radium of 2,500-19,000, the cures have been more satisfactory. With a greater activity still, the results should continue to improve. Curie thinks that the activity can be carried as high as 1,500,000. Feeble plaques require long contact, making it difficult to estimate the proper duration of exposure and increasing the liability to ulceration. With radium of high intensity, the contact need only be short and one may be able to modify the vitality of the skin and perhaps destroy morbid germs without producing ulceration. Two methods of treatment seem possible in radiotherapy: 1. The dry method, or that of repeated and short sittings, and 2, the ulcerative method, or the method of prolonged application. It is well not to prolong for too long a time the radium exposures. Hallopeau's case shows an ulceration difficult to cure after an application of a plaque of 19,000 activity for 120 hours. The rays emanating from radium appear to be a combination of cathode rays and X-rays.

Treatment of a Case of Verrucose Lupus with Radium.—Hallopeau and Gadand (*Annales de Derm. et de Syph.*, July, 1902, page 271) exhibited a patient before the Société Française de Dermatologie et de Syphilographie who had been treated with radium in the service of M. Danlos. The patient, a man of 66 years, had a verrucose lupus on the fingers, for which he had been treated for 6 years. Various measures had been employed, sublimate dressings, Paquet's cautery, plaster of vigo, red plaster, permanganate of potash and curetting without any striking success. On December 2d, a plaque of radium of 19,000 activity (estimated by the method of M. Curie) was placed on one of

the diseased areas on the cubital border of the back of the hand for 24 hours. An ulceration was produced which cicatrized by January 1st; a second application was made on December 5th. for 36 hours, upon the back of the index finger. The ulceration produced healed by January 26th. A third application was made on December 29th. to the middle finger for 72 hours. The ulceration healed by January 12th. with the production of a smooth scar. A fourth application was made on February 20th. to the little finger for 96 hours. An ulceration was noticed 7 days later, which subsequently healed. The fifth and last application of the radium was made on February 2d. to the index finger for 120 hours. The quadrangular ulceration produced has since become quite deep and rebellious. All the previous ulcerations were superficial. The question arises whether the wound has not become infected. The authors state that the treatment produced a surprising amelioration in the appearance of the lupus; the verrucose elevations disappeared, leaving scarcely a trace. They have been replaced by a smooth cicatricial tissue. The treatment has, however, caused two ulcerations which have now persisted for about 6 months.

Tannoform for Sweating Feet.—The treatment with tannoform in hyperidrosis pedis or severe sweating of the feet, is noted in *Merck's Archives* of April, 1902. Grumme treated men with pure tannoform, dusting the powder freely into the stockings which were put on after washing the feet and worn for 24 hours. The effect was unexpectedly excellent. The skin coming in contact with the powder assumed a brown discoloration and completely ceased to perspire. After some time, the discoloration gradually disappeared, and after 3 to 4 weeks the sweating recommenced, necessitating a new application of tannoform. No untoward results were noticed. If tannoform is used, diluted with talc, the action is less marked and less permanent. The use of the drug in the form of ointments and alkaline solutions gave no results beyond a more or less extensive blistering of the skin.

Oil of Cade in Psoriasis.—Balzer (*Merck's Archives*, March, 1902) treats psoriasis with oil of cade in the form of baths. The quantity of oil to be used in each bath has been estimated at about 2 oz., to be increased to 3½ oz. if well borne. He has modified his old mixture of the oil with a solution of green soap to the following preparation: Oil of cade, 2 oz.; fluid ext. quillaia, 2½ dr.; egg yolk, 1; distilled water to make 8 oz. The yolk is first placed in the mortar then the oil slowly added. A few drops of quillaia are added from time to time and finally the emulsion is mixed with the water. The bath should last from ½ to one hour, and be accompanied by mild friction over the psoriatic patches. According to the indications, the bath may be repeated daily or every two days, increasing the dose of oil for each bath to about 3½ oz. The results obtained have been encouraging, not only in psoriasis, but in similar affections as well.

MISCELLANEOUS.

Persistent Hiccough.—McDonald (*Albany Medical Journal*) reports a case of a young married woman, in whom they had to relieve general exhaustion, paresis of abdominal and intestinal muscles, intra-abdominal pressure and diminished vascular tone. They gave **gelsemium** in rather large doses, and its administration was followed by relief, but they do not attribute the cure to the drug, but rather to purging, lavage, rest, tonic, stimulant and electric treatment. In the use of the static machine several larger sparks were directed at the epigastrium, much to the surprise and possibly fright of the stomach, and producing immediately a longer interval between the spasm than had been noticed previously. The moral to be found in the history of hiccough is, treat not the name of the disease, not even the disease, but the patient.

What Therapeutics Should Be.—Huchard (*Journal des Praticiens*, April 19, 1902) reported a number of cases showing the abuse of digitalis and accidents following its use, especially in arteriosclerosis with hypertension. He also reported a case of chronic interstitial nephritis with peri-aortitis, in which sudden edema of the lungs appeared. The patient was bled and normal salt hypodermoclysis and en-

teroclysis saved his life. Digitalis was not given nor was indicated. Arrhythmia with gastric symptoms is not to be treated with digitalis, but with milk diet, rest and the bromine. In arteriosclerosis the disease affects the heart and bloodvessels, but the kidneys are in danger. Alcohol and meat are poisons to patients with nephritis. Whenever symptoms of arterial hypertension exist, before signs of illness become manifest, stop meat and stimulants, order rest, milk and vegetables. This will prevent further progress of the malady. This Huchard calls physiologic or functional therapeutics.

A New Reaction Upon Several Reducing Substances in the Organism.—Gabritschewsky's experiments (*Berlin klinische Woch.*, May 26, 1902) with hydriodic acid and sodium iodide show a new reaction with peptone, urine, uric acid, alloxanthin, alloxan, pyrokatechin, hydrochinon, guaiacol, hydroxylamin, hydrazin, sulphuretted hydrogen, sodium hyposulphite, thio-acetic acid, mecapton, etc. When equal parts of the reagent and any of these substances from a human organism were added, a dark blue color resulted. Pyrogallol and tannin first gave a yellow color, later forming blue precipitate. Some albumins gave but a gradual reaction, the color coming very slowly. Ptyalin, trypsin and papain also gave a weak reaction. The reaction failed absolutely with the sugars, glycogen, invertine, urates, xanthin, creatin, guanin, caffeine, tyrosin, hippuric acid, gallicocoll, coedine, resorcin, salicylic acid, formaldehyde, benzaldehyde and salicylaldehyde. The chemical reaction resulting frees the iodine, which causes the blue color.

Subcutaneous Injections of the Yolk of Egg.—G. d'Erra (*Giornale Internazionale delle Scienze Mediche*, August, 1902), from his experiments concludes that the injection of large doses of yolk of egg produces grave renal lesions. Small doses are well tolerated, producing merely slight temporary alterations and prolonging the period of resistance to inanition and increasing weight, the resistance to inanition is not to be attributed to real alimentation, but to a retardation of organic waste.

Effects of Tobacco on School Boys.—Some interesting observations of the effect of cigarette smoking upon boys in school were presented by P. L. Lord in a recent number of *The School Journal*. A public school of about 500 pupils was taken as an example, and in this school it was found that the boys were very much inferior to the girls in every way. It was also found that a large majority of the boys were habitual cigarette smokers. An investigation was ordered to ascertain exactly how far the smoking was to be blamed for the boys' inefficiency and low moral condition. The investigation extended over several months of close observation of 20 boys who it was known did not use tobacco in any form and twenty boys known to be "cigarette fiends." The nonsmokers were drawn by lot. The report represents the observations of 10 teachers. The pupils investigated were from the same rooms in the same school. No guesswork was allowed. Time was taken to get at the facts of the case on the 20 questions of inquiry—hence the value of the report. The ages of the boys were from 10 to 17. The average age was a little over 14. Of the 20 smokers, 12 had smoked more than a year and some of them several years. All 20 boys used cigarettes, while some of them also used pipes and cigars occasionally. The following personal peculiarities were noticed in the smokers. Twelve of them had poor memories and 10 of the boys were reported as very poor, only 4 had fair memories and not one of the 20 boys had a good memory. Eighteen stood low in deportment, only one was good, and none was excellent. Seven of them were very low, being constantly in disgrace because of their actions. Twelve of the boys were in a poor physical condition, six being subject to "sick spells," and were practically physical wrecks already. Eight were reported as being in a fair or good condition but none was excellent. The average efficiency of the average boy in this school who had never used cigarettes was represented by about 95 per cent., or, in other words, out of 100 such boys, 95 of them are reasonably sure of getting at least a good common school education.

Formulæ.

DERMATOLOGY

The Treatment of Certain Skin Diseases.—Dr. Leredde (*Rev. de Thérap.*, LXIX, No. 10) recommends the "exfoliative method" of dealing with such dermatoses as acne, the lichens, prosopermosis, etc. The method aims at creating an inflammatory reaction of the epidermis and the mucous layer, with subsequent desquamation, which results in carrying off the pathological products.

The agents employed for this purpose are strong alkaline soaps, resorcin, salicylic acid and betanaphthol:

Benzoated lard	1 oz.
Zinc. oxide	2½ dr.
Resorcin	10 dr.

Petrolatum	6 dr.
Green soap	6 dr.
Precipitated sulphur	12½ dr.
Betanaphthol	2½ dr.

Petrolatum	6 dr.
Green soap	6 dr.
Starch	6 dr.
Sulphur	6 dr.
Resorcin	2½ dr.
Salicylic acid	1¼ dr.
Betanaphthol	1¼ dr.

Or, in the form of a lotion:

Tincture of soft soap	10 dr.
Resorcin	1 dr.
Precipitated sulphur	2½ dr.

The resorcin paste is the most reliable. It is applied to the skin once a week, after washing the area with soap and water. The paste is allowed to remain in place for 15 to 25 minutes, always making the first seance short, in order to gauge the reactive powers of the individual skin. The resorcin lotion permits of more frequent employment. It may be dabbed on daily for 3 successive days. The resulting inflammatory reaction may be tempered by means of cooling salves, such as:

Zinc oxide	
Petrolatum, of each	2½ dr.
Wool-fat	½ oz.

The chief indication for the exfoliative method is furnished by the various forms of acne. Good results were furthermore obtained in lichen and some other skin affections.

Treatment of Alopecia Areata.—Dr. Gastou (*Journal des Praticiens*, June 7, 1902) thus formulates his treatment for this condition: The scalp should be shaved and depilation practised in the neighborhood of the plaques and in the plaques themselves. The possible causes of the condition should be sought for, especially dental lesions and any morbid conditions in the patient should be treated. He advises each day that friction should be practised with a ball of cotton well soaked in:

Carbolic acid	1 dr.
Acetic acid	½ dr.
Glycerine	
Alcohol, of each,	2 oz.

Following this procedure the affected areas should be covered with:

Salol	20 gr.
Vaseline	1 oz.

The scalp should then be thoroughly washed with the liqueur of Van Swieten (this consists of 60 cg. of corrosive sublimate dissolved in 1 kilogram of brandy). When the condition persists, he advises alternating the liqueur of Van Swieten with the following lotion:

Chloral	15 gr.
Essence of turpentine	½ oz.
Spirits of camphor	6 oz.

If the condition of *seborrhea sicca* is present, the following may be employed:

Sublimed sulphur	1 dr.
Vaseline	½ oz.
Balsam of Peru	½ oz.

If there is a condition of oily seborrhea, employ:

Juniper tar oil	6 dr.
Sublimed sulphur	
Salicylic acid, of each,	15 gr.

If there is present the condition of comedo and acne, he advises the use of:

Balsam of Peru	1½ dr.
Styrax ointment	3 dr.
Salicylic acid	
Turpeth, of each,	15 gr.
Vaseline	1 oz.

Every 6 or 8 days he recommends that an application be made to the plaques of a concentrated solution of carbolic acid. This application should be made with care and should be discontinued when there is a marked inflammatory reaction.

(Styrax Ointment is a balsam, yielding, as does the balsam of Peru, cinnamic and benzoic acids. Turpeth is a preparation composed of one part of turpeth root in six parts of alcohol. The method of preparation is complicated.)

Baths in Diseases of the Skin.—In acute eczema, urticaria or psoriasis in children, the following formula is of service, to be used in the bath:

Sodii bibor.	
Sodii bicarb.	āā 1 oz.
Pot. carb.	3 oz.
Pulv. amyli	4 oz.

M. S.: One to three tablespoonfuls to each gallon of water, to be used in the bath. In cases of pruritus the following:

Sodii carbonatis	2 oz.
Sodii biboratis	2 oz.
Pot. carb.	3 oz.

M. S.: One such powder to be used in 30 gallons of water with ½ lb. of starch. The starch should be previously boiled with water in order to make a clear solution.

The following lotion is recommended in the treatment of acne and eczema:

Pulv. zinci carb. precip.	
Pulv. cretæ prep.	āā 1 dr.
Glycerini	3 dr.
Acidi hydrocyanici dil.	½ dr.
Liq. calcis	
Aquæ rosæ	āā 3 oz.

M. S.: To be used locally.

In the erythematous and papular varieties the following combinations are recommended (*Applied Therapeutics*):

Zinci oxidi	2-4 dr.
Acidi carbol	20 gr.
Mucilag. acaciæ	2 dr.
Emuls. amygdalæ	2 oz.
Aquæ	q. s. ad. 8 oz.

M. S.: Apply locally.

An ointment similar to the following containing calamin is also recommended:

Calaminæ	1 dr.
Ung. zinci oxidi	7 dr.

M. S.: Apply locally to the affected parts; or the following:

Calaminæ	
Zinc oxidi	āā 40 gr.
Amyli	1 dr.
Acidi salicylici	10 gr.
Petrolati	q. s. ad. 1 oz.

M. S.: To be used locally.

In the subacute form of eczema the following is recommended:

Zinci oxidi	2 dr.
Liq. plumbi subacet.	6 dr.
Glycerini	2 dr.
Inf. picis liq.	q. s. ad. 4 oz.

M. S.: As a local application.

Eczema of the Genitals.—Lutaud (*Gaz. des Hôpitaux*) recommends the following as a lotion in eczema of the genitals:

Potassii chloratis	20 gr.
Vini opii	45 drops
Aquæ	8 oz.

M. S.: Apply locally to the affected parts.

Vulvar Pruritus.—H. Guilhot (*Le Progrès Médical*) recommends the following:

Sodii hyposulphitis	45 gr.
Adipis lanæ hydrosi	1 oz.

M. S.: To be rubbed over the affected parts frequently.

Pruritus and Fissures of the Anus.—Dr. W. C. Black (*Merk's Archives*) states that the following treatment is successful in severe cases of pruritus ani, especially those complicated with fissures. The sphincter ani is stretched until there is complete relaxation and the mucous membrane within the sphincter is painted with the following:

Ichthyol	
Glycerini	āā 1 oz.

M. S.: Apply locally.

He states that this treatment has proved in his hands more successful than any other remedy that has ever been recommended. Recently he has had good success with ichthyol injected in full strength, just within the sphincter, 2 or 3 times a day.

Infantile Eczema.—Kistler (*Modern Medicine*) recommends the following as an ointment in infantile eczema to relieve the itching:

Acidi salicylici	15 gr.
Bismuthi subnit.	4 dr.
Pulv. amyli	1½ dr.
Ungt. aquæ rosæ	2 oz.

M. S.: To be applied locally.

He also recommends the mild chloride of mercury to be given twice a week to increase elimination from the bowels and kidneys.

To Prevent the Shedding of Hair.—Dr. David Walsh (*Medical Standard*) recommends the following as a lotion, stating that it is preferable to an ointment, especially in the case of women:

Acidi salicylici	3 dr.
Acidi carbol	1 dr.
Ol. ricini	3 dr.
Spir. vini rect.	q. s. ad. 6 oz.

M. ft. lotio.

S.: Apply locally once or twice daily.

A New Treatment of Prurigo of Hebra.—Beurmann (*Annales de Derm. et de Syph.*, July, 1902, page 746) narrates the history of a patient who had been afflicted for 7 years with prurigo of Hebra. Numerous remedies had been used during this time but without much success. The patient suffered most tormenting itching and the skin showed much thickening. He was given the following ointment, which was rubbed into the skin daily:

Camphor,	12 parts.
Tar,	15 "
Sulphur,	8 "
Oil of Chaulmoogra,	3 "
Vaseline,	62 "

The patient rapidly improved and the itching became progressively less, finally disappearing. The skin lost its infiltration and the patient appeared to be on the road to cure.

INFECTIOUS DISEASES.

Treatment of Diphtheria.—E. Perrier (*Annales de Méd. et Chirur. Infantiles*, August 15 and September 1, 1902) outlines the treatment of diphtheria as follows: When the physician first sees the patient in whom diphtheria is suspected from the presence of suspicious spots on the tonsils or uvula, it is advisable to inject antitoxin at once without delaying until the bacteriological examination can be made. He advises an injection of 10 cc. of the serum for an infant of less than two years, 20 cc. for an infant of two years or over. Irrigation of the upper air passages and the throat should be practised three or four times a day with a warm boric acid solution, and local applications of the following combination should be made every two hours during the day and every four hours during the night:

Salicylic acid	10 to 15 gr.
Alcohol	5 dr.
Glycerine	1 oz.
Infusion of eucalyptus	2 oz.

The child should be isolated and kept in a well ventilated

room in which the air is kept moist by means of a vessel containing water at boiling point. As to nourishment of the patient, he advises milk, albumin water and chocolate and ices as well as raw or cooked fruits. Rectal alimentation with peptonized food may be resorted to if necessary. If alcoholic stimulation is required, champagne or a good Malaga, Sherry or Port wine may be selected. Coffee or tea may also be used for a similar effect. He had had excellent results in the use of the following tonic:

Extract of cinchona	1 dr.
Cognac	1 oz.
Currant syrup	1½ oz.
Simple elixir	3½ oz.

This should be given in doses of a teaspoonful to a dessertspoonful every 2 hours. Should the diphtheric process attack the nasal fossa, he advises the application of the following ointment:

Boric acid	1 dr.
Vaseline	1 oz.

In cases in which the diphtheric membrane appears on the conjunctiva, the general treatment is the same, while the conjunctiva is treated locally with applications of powdered boric acid.

Tincture of Myrrh in Diphtheria.—Dr. Stroll (*Allgemeine med. Centr. Zeitung*) recommends the tincture of myrrh in diphtheria. The mixture he uses is as follows:

Tinct. myrrhæ	1 dr.
Glycerini	2 dr.
Aquæ destil.	q. s. ad. 3 oz.

M. S.: To be given every half hour or every hour during the day in teaspoonful doses.

The author states that infants under two years of age may take one teaspoonful at a dose and older children double that quantity. After all the membrane has disappeared, the treatment should be continued for 2 or 3 days, the interval between the doses being increased to 3 hours. Usually the fever and lassitude disappear in 24 hours, so that a child may be frequently found within that time sitting up in bed playing. He states that there does not seem to be any need for local treatment; but in the case of older children and adults, a gargle containing 0.5 per cent. of resorcin may be employed every hour or oftener in the daytime, or, when it is desired, the tincture of myrrh, undiluted, may be painted over the tonsil every hour. When the larynx is involved the author uses the foregoing mixture in an inhaler or spray, to be used every half hour. The efficacy of myrrh is supposed to be in its ability to increase the phagocytic elements in the tonsils.

Smallpox.

Glyceriti amyli	2 dr.
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S.: Apply freely to the pustules and cover with surgeon's lint.

Indication. Used to prevent pitting.

Acid boric	40 gr.
Aq. camphoræ	4 oz.
Aquæ dest.	q. s. ad. 8 oz.

M. S.: Bathe the eyes freely every few hours.

Indications: Used in conjunctivitis.

Acidi boric	1 dr.
Petrolati mollis	1 oz.

S.: Rub small quantity along margin of eyelid.

Indications: Used to prevent adhesions of lid during sleep in cases with conjunctivitis.

GASTRO-INTESTINAL DISEASES.

Chronic Diarrhea.—M. Saupault (*Société de Thér.*) related the good effects of hydrochloric acid in idiopathic forms of diarrhea, in which there is no important anatomical alteration in the intestine. The acid, according to the author, must be prescribed in full doses; small doses are useless. One or two grams should be given daily. The pure official hydrochloric acid containing 38 % of the anhydrous acid is used. It may be ordered in the form of drops at the beginning of meals, 10, 15 or 20 drops, in a glass of sweetened water or mixed with a little citron juice, or the following lemonade may be used:

Acidi hydrochloric puri	1½-2 dr.
Syrupi limonis	6 oz.
Aquæ	25 oz.

M. S.: Two to six tablespoonfuls at a dose.

Chronic Dyspepsia With Deficient Gastric Secretion.—Yeo (*Clinical Therapeutics*) recommends the following in the treatment of chronic dyspepsia with deficient gastric secretion:

Acidi nitrohydrochlor. dil.	6 dr.
Liquoris strych.	1½ dr.
Tinct. aurantii	
Tinct. calumbæ	āā 1 oz.
Infusi gentianæ	q. s. ad. 10 oz.
M. fiat. mistura.	

S.: A tablespoonful to be taken in half a glass of water after meals three times a day.

Dyspepsia and Phosphaturia.—A. Robin (*Bulletin Général de Thérapeutique*) recommends the following in the treatment of dyspepsia accompanied with phosphaturia:

Acidi arsenosi	¾ gr.
Pulv. ignatiæ	7½ gr.
Pulv. rhei	36 gr.
Pulv. opii	7½ gr.
Ext. gentianæ	q. s.
M. ft. cap. No. 50.	

S.: One capsule after each meal.

CYSTITIS.

The Treatment of Cystitis.—G. Brookmann (*Merk's Archives*, September, 1902) states that the use of hydrogen peroxide inside of the bladder is absolutely contra-indicated and should never be resorted to unless in local treatment of circumscribed areas, when we only slightly touch the diseased spots with a cotton applicator.

Sodii boratis	2½ dr.
Aquæ dest.	ad. 1 pt.

To be instilled by means of an Ultzmann's irrigation catheter once a day. In case of persisting hematuria:

Secali cornuti	75 gr.
Cort. cinnamomi	45 gr.
Fiat decoctum	ad. 5 oz.
Colaturæ adde:	
Potassii bitartar	2½ dr.
Syrupi simpl.	1 oz.

Tablespoonful every two hours. (Guttman.)

Among old remedies and formulæ of certain value in mild cases of chronic cystitis, he mentions:

Decoct. fol. uvæ. ursi.	5 dr. to 10 oz.
Acidi nitrici dilut.	3 dr.
Pulv. gummi arab	5 dr.

Tablespoonful 3 times a day (when urine is alkaline).

Flori verbasci	
Semin. lini	
Rad. althææ	āā 1 oz.

Tablespoonful in a teacupful of hot water used as a tea twice or three times a day.

Bacc. juniperi	5 dr.
Fol. uvæ ursi	
Fol. buchû	āā 2½ dr.

Dr. ad. scatulam.

Used as a tea 2 or 3 times a day.

Saloli	
Sacch. lactis	āā 10 gr.
Dr. tal. dos. No. 15.	

One powder every 2 hours.

In cases of chronic cystitis with atony, the following formula is very useful:

Cantharidini puriss	1/400 gr.
Spir. vini	15 drops
Aquæ dest.	ad. 4 oz.

Teaspoonful 3 or 4 times a day.

DISEASES OF THE EYE, EAR, NOSE AND THROAT.

Ichthyol in Trachoma.—Ichthyol (*Revue de Thérapeutique*) has been employed in the treatment of trachoma. It is used in the form of instillations as follows:

Ichthyol	2 dr.
Glycerini	½ oz.
Aq. dest.	q. s. ad. 2 dr.

M. S.: Drop into the eye once or twice daily, first anesthetizing the conjunctiva with cocaine. Under this treatment diffuse infiltrations of the conjunctiva in trachoma, of not very long duration, disappeared in a week's time; the follicles diminished in size and no new ones were

formed. In chronic cases the purulent secretion was arrested with rapidity. It is also efficacious in corneal panus.

Acute Tonsillitis.—Geo. L. Richard (*International Journal of Surgery*) states that the treatment should be begun early. The patient should be put to bed, free perspiration produced and antiseptic sprays employed. Remedies which will relieve the aching, such as the antirheumatics, are of service. He employs the following:

Tinct. aconiti	1/5 m.
Tinct. belladonnæ fol.	1/10 m.
Tinct. bryoniæ	1/10 m.
Mercuric iodide	1/100 gr.

M. ft. tabula No. 1.

S.: One such to be given every fifteen minutes for two hours, and then every half hour for three hours. At the same time he gives sodium salicylate, 5 grains, once in 2 hours for 4 doses, then once in 4 hours as long as the fever lasts. He does not favor the use of the old remedy, guaiac, on account of its disagreeable and nauseating taste.

In the lacunar or follicular variety he recommends peroxide of hydrogen in the form of a spray or gargle to lessen the inflammation early in the disease. He also recommends the following for internal use:

Morphinæ sulph.	¾ gr.
Tinct. veratri viridis	1 dr.
Aquæ	4 oz.

M. S.: One teaspoonful every hour for 3 hours, then every 3 hours for 24 hours; or:

Tinct. ferri chloridi	1 dr.
Glycerini	2 oz.

M. S.: One teaspoonful every three hours.

The following combination makes a good cleansing and stimulating gargle:

Acidi carbol	1 dr.
Glycerini	3 oz.
Tinct. iodi	4 oz.
Aquæ	q. s. 1 pt.

VENEREAL DISEASES.

Berberine in Gonorrhea.—J. M. French (*Merk's Archives*, September, 1902) states that berberine exercises a direct influence over the hepatic cells and hence is of special value in chronic derangement of the liver. In gonorrhea, after the acute stage has passed, and especially in gleet, it is of great value. The following formula is recommended by Prof. Bartholow:

Berberine sulph.	10 gr.
Mucilage acacia	2 oz.
Rose water	4 oz.

Mix and use ½ oz. as an injection.

Gonorrheal Epididymitis.

Methyl salicylatis	1 oz.
Ol. olivæ	2 oz.

M. S.: Apply to the scrotum and protect by gutta percha paper and a suspensory bandage. Bettman (*Medical Age*) advocates the above treatment and advises the change of dressings every 2 hours. That the salicylate is absorbed is proved by the urine.

DISEASES OF THE HEART.

Dropsy Due to Heart Disease.—Digitalis (*Cyclopedia of Med.*) is contra-indicated in marked atheroma of the blood-vessels, aneurysm, apoplexy and other states of arterial excitement and in gastric irritation. The following combination is, however, recommended in dropsical conditions caused by an incompetent right heart.

Tinct. digitalis	1 dr.
Tinct. scillæ	2 dr.
Spts. juniperis co.	
Pot. acetatis	āā 4 dr.
Vini albi	q. s. ad. 6 oz.

M. S.: One tablespoonful three or four times a day; or:

Pulv. digitalis	
Pulv. scillæ	āā ½ dr.
Pot. nitratis	1 dr.

M. ft. pil. No. 30.

S.: One pill three times a day.

RESPIRATORY TRACT.

Acute Bronchitis.—H. C. Wood, Jr., advises the following combination in the second stage of acute bronchitis:

Ammonium chloride	2 dr.
Syrup of tar	3 oz.
Heroin hydrochlorate	2 gr.
Compound tincture of cardamom	1 oz.
Anise water, enough to make,	6 oz.

Dessertspoonful 4 times a day.

Spray in Asthma.—Dr. A. Abrams (*Medical Fortnightly*) recommends the following as a spray in treatment of asthma:

Antipyrine	15 gr.
Pyridin	1 dr.
Sod. nitritis	2 dr.
Tinct. lobeliæ (ethereal)	
Tinct. belladonnæ	
Tinct. stramonii	āā 5 dr.
Tinct. ipecacuanhæ	4 dr.
Glycerini	q. s. ad. 4 oz.

M. S.: To be used in the form of a spray.

It has been a question among the profession as to how much of the respiratory tract can be reached by means of inhalation. It would seem more improbable that the bronchioles could be reached by means of a spray.

Pulmonary Tuberculosis.—E. Wells (*Bulletin Général de Thérapeutique*) recommends the following, containing calcium hyposulphite in the treatment of tuberculosis:

Calcii hyposulphitis	1/6-1/2 gr.
Strych. sulphatis	1/60 gr.
Acidi arsenosi	1/60-1/30 gr.
Pulv. ulmi (elm)	4 gr.

M. ft. cachet No. 1.

S.: One or two such cachets 3 times a day.

Anorexia of Tuberculous Patients.—The following formula has been recommended (*Progrès Médical*) to correct the anorexia in tuberculosis:

Pulv. condurango	
Sodii bicarb.	āā 7½ gr.

M. ft. chart No. 1.

S.: One such to be taken before each meal; or:

Tinct. condurango	
Tinct. cinchonæ	āā 1 oz.

M. S.: One teaspoonful before meals in water.

MALARIA.

Berberine in Malaria.—J. M. French (*Merck's Archives*, September, 1902) regards the following combination of the greatest value in malaria with enlarged spleen:

Berberine hydrochlorate	15 gr.
Quinine bisulphate	7 gr.

Put in 4 capsules, one to be taken every hour or every half hour for an adult.

DISEASES OF THE NERVOUS SYSTEM.

Antipyrine in Chorea.—The following combination (*Jour. Amer. Med. Ass.*), containing antipyrine is recommended in the treatment of chorea:

Sodii bromidi	
Potassii bromidi	āā 1 dr.
Antipyrine	30 gr.
Aquæ menthæ pip.	q. s. ad. 1 oz.

M. S.: One teaspoonful 3 or 4 times a day, according to the age.

As a heart stimulant alternating with the above:

Tinct. adonis vernalis	1-3 dr.
Elix simplicis	q. s. ad. 1 oz.

M. S.: One teaspoonful 3 or 4 times a day, according to age.

Neuralgia.—The following combination is recommended in the treatment of neuralgia (*Progrès Médical*):

Ext. hyoscyami	
Ext. cannabis ind.	
Pulv. aconiti rad.	
Pulv. belladonnæ rad.	āā 1/3 gr.

M. pilula No. 1.

S.: One to three such pills daily.

GYNECOLOGY AND OBSTETRICS.

The Treatment of Hemorrhagic Metritis.—M. Bertignon (*Journal des Praticiens*, July 12, 1902) recommends the following formula:

Chloride of calcium	1 dr.
Syrup of mint	1 oz.
Distilled water	3 oz.

This is to be taken during 24 hours in teaspoonful doses or larger doses every 2 hours and if necessary may be repeated the next day.

Headache Dependent Upon Ovarian Disease.—W. Sinkler (*System of Practical Therapeutics*) advises the following:

Ammonii bromidi	6 dr.
Ext. hydrastis, fluid,	½ oz.
Tinct. gent. comp.	½ oz.
Aquæ	4 oz.

M. S.: One dessertspoonful 3 times a day in water.

In anemic headaches associated with uterine disorders he states that Hamilton recommends the following:

Ammon. bromidi	1 oz.
Tinct. cannabis indicæ	1 dr.
Mucilag acaciæ	4 oz.
Spir. menthæ pip.	2 dr.

M. S.: One teaspoonful in water 3 times a day.

MISCELLANEOUS.

Ulcers of the Leg.—Schulze (*Medical Record*) recommends the following for ulcers of the leg:

Pulv. camphoræ	2.
Zinc oxid.	15.
Lard	q. s. 100.

Or,

Pulv. camphoræ	2.
Solve in ol. oliv.	50.
Add zinc oxid.	40-50.

M. Apply twice daily.

Epistaxis.—One of the most powerful vasomotor stimulants, says Cox, (*Medical News*), is the dried extract of suprarenal capsule. This property of vascular contraction makes the remedy a very useful one for the control of nasal hemorrhage. It may be applied to the bleeding surface in the form of the powdered extract; or, better still, as a spray. The solution should be freshly prepared, as it readily decomposes. It can be made in the following manner:

Ext. suprarenal capsule	20 gr.
Glycerine	1 dr.
Aquæ	3 dr.

M. Macerate for one-half hour. Filter and then boil the solution for a few minutes to sterilize it. The glycerine is added for the purpose of prolonging the period of preservation only and then may be omitted.

Fetid Breath.—For the purpose of preventing fetor of the breath and as an excellent mouth wash (*La Presse Méd. Belge*, July 20, 1902) the following combination may be employed, in the strength of a teaspoonful to the cup of water:

Bicarbonate of soda	
Saccharine	
Salicylic acid	āā 1/6 oz.
Alcohol	5 oz.

Liniment For Fissured Nipples.—Scarff (*La Presse Méd. Belge*, July 20, 1902) recommends:

Balsam of Peru	3½ dr.
Tincture of arnica	3½ dr.
Oil of sweet almond	3 oz.
Lime water	1½ oz.

To Control Hemorrhage.—The following combination (*Jour. Amer. Med. Ass.*) has been employed to check hemorrhage from any cause:

Tinct. hydrastis	
Tinct. viburni	āā 3 dr.
Tinct. hamamelidis	
Tinct. castaneæ (chestnut)	āā 6 dr.

M. S.: Take 15 to 20 drops each meal in sweetened water.

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa
See Advertising Page 8

VOL. X. NO 20

NOVEMBER 15, 1902

\$5.00 PER ANNUM

The Diet in Typhoid Fever.—We call the attention of our readers to the paper on the Diet in Typhoid Fever, by Dr. William Egbert Robertson, in this week's issue of the **Philadelphia Medical Journal**. Dr. Robertson's paper formed a part of a symposium on typhoid fever at the meeting of the Philadelphia County Medical Society, September 24. To the majority of the profession Dr. Robertson's position will appear most radical and, at first thought, possibly unjustifiable. But by a careful study of his contribution it will be seen that he is not alone in his advocacy of a liberal dietary in this disease. In this country, Shattuck and Fitz, in Boston, have advocated the use of a liberal diet in this disease since 1893, and they find that the mortality is thereby not increased, but that it is indeed somewhat diminished. Among the foreigners the position on this subject is even more radical than that of Shattuck. The author of the paper under consideration quotes from the work of Bushuyev and Sartsievich, who are enthusiastic in their claims, and he shows that their ideas are being carefully considered here by reproducing Thayer's review of the paper just mentioned.

Beauloce, in Toulouse Thesis, No. 427 (*Gaz. Heb. de Méd. et de Chirur.*, June 1, 1902), says that the ordinary quantity of milk that a patient suffering from typhoid fever receives, two liters a day, is deficient in carbohydrates and excessive in fats. He advocates a diet the basis of which shall be milk, out to which shall be added substances that are easily digested and that are rich in albumins and carbohydrates. He allows his patients tea and coffee, thickened soup (*soupe à la farine*), milk porridge with yolk of egg, somatose, meat-juice, bouillon with yolk of egg and wine-jelly. He claims that this diet does not increase the fever and does not expose the patient to hemorrhage or to perforation, and does not prohibit the use of the cold bath. The contra-indications to the cold bath are also the contra-indications to the use of this diet. Robertson fully points out that at autopsy tough curds of milk are often found in the intestines of typhoid-fever patients, and he adds that, out of three hundred

autopsies, he has never found solid masses in the small bowel, no matter what diet the patient received, unless milk constituted the bulk of the food. Robertson allows coffee, broths thickened with farinaceous substances, raw eggs in coffee, tea or chocolate, soft or hard-boiled eggs, cereals, milk-toast, bread and butter, biscuits, potatoes, macaroni, salad, well-cooked spinach, jellies, custards, puddings, oysters, fish, soups, ripe fruits (care being exercised to remove skin and seeds) and chicken. Many physicians may think that some of the articles on this list are unsuitable; but the majority of them are easily and rapidly digested and leave no residue. If the digestive powers are weakened on account of the fever, some starch-digesting ferment may be administered simultaneously, as suggested by Hare in his discussion of Robertson's paper (*Proc. Phila. Co. Med. Soc.*, October, 1902).

The Treatment of Bronchiectasis.—In a recent number of the *Practitioner*, (April, 1902,) Theodore Dyke Acland contributed a valuable and exhaustive clinical study of bronchiectasis. The conclusion was presented that in the adult this condition, when once fairly established, is, except in very rare instances, incurable by any method of treatment at present available. In some of the more acute cases in young persons cure may occasionally be obtained. In the great majority, the chronic cases, the distress of the condition can often be relieved to some extent and, if the exciting cause of the disease is not progressive, life can frequently be greatly prolonged. In the treatment of bronchiectasis Acland states that three main objects must be kept in view: (1) The evacuation of the purulent and offensive secretion; (2) the disinfection of the tubes and prevention of the fetor; (3) the obliteration of the cavities. He has found that the most successful means of relieving the fetor, and at times of lessening the amount of expectoration, is the inhalation of crude creosote vapor, as was originally suggested by Arnold Chaplin. In order that the best results may be secured from this method it must be persisted in. Acland has not had the same degree of

success with the various other volatile antiseptics which have been recommended in place of creosote. He has little faith in intralaryngeal treatment, and believes that the objections far outweigh any possible advantages to be derived. He sums these objections up by stating that the amount of an antiseptic which can be injected is very small, that the injection has to be made before the tubes are clear, or has to be frequently repeated, and that it may cause considerable distress to the patient. He grants, however, that in certain old cases of chronic bronchitis and bronchorrhea the local oily applications to the mucous membrane of the larger tubes may ease the cough and give a certain amount of relief. He states that the results of surgical treatment of bronchiectasis have been most disheartening. The more obvious causes of failure are that a bronchiectatic cavity is seldom single and that there is generally a ramification of dilated tubes. The condition is often bilateral and the tissues of the lungs are often profoundly altered and readily give rise to hemorrhage. Finally, the administration of the anesthetic is in itself a serious source of danger both at the operation and in consequence of the subsequent catarrh. His conclusions as to the advisability of operating in any given case of bronchiectasis are as follows: "(1) If there is no reasonable doubt that the case is bronchiectasis (unless it is known to result from a definite local cause, e. g., the impaction of a foreign body), the chances of a successful result from operation are extremely small. (2) The more probability there is of the symptoms being due to (a) pulmonary abscess or gangrene; (b) empyema, subphrenic abscess; or, (c) hepatic abscess, or hydatid, the more justification there is for the exploratory operation. (3) That it is useless to advise operation in a tuberculous bronchiectasis, since localized tuberculous cavities in the lungs, capable of being drained with any advantage, are of such rarity that they need not be taken into consideration, and that it is indicated when there is ground for suspecting a fistulous communication between a bronchus and a pyopneumothorax, since in such cases a free opening may give immediate and needful relief to the incessant cough and profuse expectoration." The final conclusion is that, if the case is surely one of bronchiectasis, the less likely is it that surgical treatment will be followed by success, and it must also be remembered that a multitude of small cavities, separated only by indurated lung tissue, present physical signs which are very apt to be mistaken for those of a large cavity. Acland very wisely points out that a neglect of this important point may lead to the attempt to drain a large cavity which does

not in fact exist, and in which case operation doomed to failure.

Resection of the Cervical Sympathetic.—Professor Thomas Jonnesco, of Bucharest, whose work in the surgery of the cervical sympathetic is so widely known, has contributed a most interesting special article to the last volume of *International Clinica* (Volume II, twelfth Series, 1902). During the last five years he has performed over one hundred and thirty bilateral cervical sympathectomies. His smallest exsection involved the removal of the superior ganglion. In two cases he removed even the first thoracic ganglion, a feat which in the living subject had been declared to be anatomically impossible. In none of these cases has there been the slightest trace of trophic or circulatory disturbance. Under these circumstances he states that surgeons are perfectly free, if such an operation is indicated to perform a resection of the cervical sympathetic without any fear of post-operative sequels.

Jonnesco's patients included about one hundred epileptics, of whom fifteen were suffering from exophthalmic goiter, twelve from glaucoma and two from essential migraine. He states that up to August, 1897, of the twenty-nine epileptics, twelve are cured and four greatly improved, and none of the patients is worse because of the operation. Of his series of fifteen patients suffering from exophthalmic goiter, all have been completely cured or markedly improved. This operation for the cure of glaucoma has proven especially encouraging. Jonnesco performed the first cervical sympathectomy for this condition about four years ago, and announced to the world that the result was satisfactory. At the present writing he has been able to collect about thirty-five cases of glaucoma, twelve of which he performed himself. Complete restoration of vision in such cases cannot be expected, but there is every reason to believe, judging from the results so far obtained, that this operative procedure will arrest the progress of the disease and give the patients relief from pain.

Relative Digestibility of Proteids in Human Milk and Substitutes for it.—A brief but important communication on this topic, from Dr. Tunnicliffe, appears in the October number of the *Journal of Hygiene*. The experiments involve a novel feature, in that, after testing the digestibility by artificial gastric juice, the undigested portion was subjected to the action of artificial pancreatic secretion. In the first digestion, cow's milk and some milk substitutes agree closely with human milk, but when

the total digestibility is compared, it is noted that all the substitutes, even cow's milk, fall considerably short of human milk. It also appears that in the total effect some prepared foods are better than simple unmodified cow's milk, but other samples were not so good. Unfortunately, the identity of the brands tested is not disclosed. The fact that human milk is by far the best nutrient for the human infant has really never needed demonstration, but the results of the double digestion are interesting and show that the method should find extensive application in digestion investigations. It is stated that the sample which gave the worst results was the most expensive and bore the title "human milk." Thus is added another instance to the long list of evidences of the truth of the German proverb "*Papier ist geduldig.*"

The Political Aftermath.—In politics the second crop after an election is supposed to be a crop of reflections. These reflections may be bitter or sweet, but either way they should not be without profit. The recent elections were at least not without direct interest for medical men in two States—New York and California.

In the former State it was freely predicted that Governor Odell would suffer at the polls for his policy toward the State hospitals for the insane. We have animadverted more than once on this policy, a policy which sought, and sought successfully, to take these hospitals out of the hands of the local boards of managers and concentrate all authority in a central board located in Albany. This evil measure excited keen resentment throughout the State of New York, and much vigorous criticism outside of the State. Still, Governor Odell persisted in it, and now has all the asylums under his political thumb. Whether his recent very narrow escape from defeat at the polls is in any way attributable to his bad policy toward the State hospitals, is a problem which we are not political wiseacre enough to figure out; but we should not be surprised if his record in this matter had hurt Governor Odell not a little. It certainly ought to have hurt him.

In California the Governor-elect is a doctor of medicine. He seems to have won by a very narrow margin—but in politics an inch is sometimes as good as a mile. Dr. Pardee is everywhere highly spoken of as a man and a physician, but what kind of a statesman he will make remains to be seen. That he will have some opportunity to show his professional caliber is evident from the plague statistics. As a physician he cannot close his eyes to the scandal that has arisen in San Francisco over that disease, and as an executive officer he cannot ignore his plain duty to put an end to that same scandal.

The Plague in California.—Up to October 17 there had been reported 88 cases of bubonic plague in California. Since May 19 the disease has increased alarmingly, no less than 34 fatal cases having been reported by the Marine-Hospital Service. The action of the State and Provincial Boards of Health at New Haven, on October 29, has served to call the attention of the public and the United States Government again to this subject, and there are indications that the authorities in San Francisco and California are becoming alarmed and are no longer defying public intelligence. The election of Dr. Pardee as Governor may be, and we hope will be, an earnest that the disgraceful régime in California that has concealed and denied the truth, will soon be at an end. Dr. Pardee is face to face with a grave responsibility, and his character as a man and as a physician is about to be put to the test.

We believe it to be fortunate, indeed, for the country at this crisis that a physician is to occupy the gubernatorial chair in California. The opportunity is great, and we trust the man is at hand. It will be an honor to the medical profession, no less than a crowning service to the country at large, to have this abominable situation changed by the conscientious and fearless action of a medical man. Unfortunately too many medical men in California have sinned against the light. Dr. Pardee can do much, not only to redeem his State, but also to reconstruct some members of his profession.

The action of the authorities and the people, as well as of some physicians, in California, will remain for all time as an example both of shortsighted policy and of dereliction from public duty. The country has been treated to a series of denials, scoffs and jeers at the expense of the properly accredited scientists who demonstrated beyond peradventure that bubonic plague existed in San Francisco. The denunciations of politicians and newspapers have been the answer to the demonstrations of science. Was ever such a spectacle presented before in a civilized State?

It seems now that California must face her own humiliation. The situation from being a public peril has become a public nuisance. San Francisco may have to face a quarantine as well as the opprobrium of this situation. If it is necessary to save the whole country, the general government should act.

We are well informed that most of the best men in the medical profession in California have had no sympathy with the policy of denial. It has been a popular and political madness, and one which unfortunately has swept some weak-kneed individuals off their feet.

The National Association for the Study of Epilepsy.—The fact that there are 140,000 epileptics in the United States should appeal strongly to the benevolent instincts of the American people. The time was when the epileptic was almost an outcast. The school, the hospital, even the church, as well as all sorts of employments, were closed to him. In the midst of a great civilization he lived a life of peculiar isolation. He knew his own infirmity as well as it was known to the world. He shunned society, and was shunned by it.

Happily this deplorable situation no longer exists as in former times. While epilepsy is still one of the most incurable of diseases, it is no longer one of the most neglected. In nineteen States of the Union there are now special provisions made for the care and happiness of the epileptic. He is removed from the harsh environments of the great world, and is given a small world of his own—a world in which he can find work, recreation, a measure of health and a genuine happiness. There is, and there can be, no charity that appeals more urgently to the benevolence of right-minded men and women.

The National Association for the Study of Epilepsy is a powerful factor in the furtherance of this good work. At its recent meeting, just held in the city of New York, many papers were read by men who are making the rational and humane care of the epileptic their special study. One of their prime objects is to increase still further the means for providing for all needful cases the special field wherein these sufferers may lead what is for them a normal and useful life. The officers elected for the next year are Dr. Wharton Sinkler, of Philadelphia, President; Dr. William Osler, of Baltimore, Vice-President, and Dr. William P. Spratling, of Sonyea, N. Y., Treasurer.

Medical Education Too Theoretical.—In our enthusiasm over the grand achievements of laboratory workers, especially in the domains of bacteriology and pathology, we are apt to forget, and do forget, that medicine in the last analysis is a healing art, and, like any other art, must be continuously and persistently practised before proficiency is attained. Laboratories and theoretical instruction are good enough in their place, provided they supplement and not supplant practical experience in the diagnosis and treatment of disease. In Russia, where medical education is ultrascientific and ultra-theoretical, the cry is now heard all around that the graduates of the several medical institutions are ill prepared for the actual practice of medicine. The necessity for more bedside teaching is being urged

even by the students themselves, as is seen from a publication by the Imperial Military Medical Academy. "The students complain," says that journal, "that they graduate with a lack of practical knowledge, and as a result, when they enter upon the field of independent activity at the bedside, they make mistakes, and thus may do injury to the patient, to themselves, and to their alma mater. This lack of practical preparation depends on many causes, among which are insufficient amount of time devoted to thorough training in the clinics; superabundance in the advanced grades of didactic lectures to the detriment of clinical instruction, and the lack of clinical material."

As in this country we are gradually diverting medical education to the laboratories rather than the clinics, it is well to take a timely warning.

A Russian Medical Monthly in Financial Straits.—It is with great surprise that we see the announcement made by Prof. Podvisotski, the able editor of the *Russki Arciv Patologii Klinitcheskoy Mediciny i Bakteriologii*, that, unless he receives more subscriptions, the publishers will be compelled to discontinue the publication of this journal. This monthly is a scientific periodical and the only one of its kind in Russia. It has been in existence for seven years, and to it, more than to any other publication, Russian scientific medicine owes its recognition abroad. That 18,000 physicians cannot support a single scientific monthly is as surprising as it is deplorable, and goes to show that even in Russia, where the standard of medical education is high, mental lethargy overtakes the physician as soon as he leaves the student's bench. We sincerely hope that the medical profession in Russia will endeavor, for its own sake and for the sake of medical journalism, to prolong the life and usefulness of one of its best monthlies.

President Butler's Explanation.—We print elsewhere a portion of a letter which President Butler, of Columbia University, has recently written to the *Philadelphia Press*. In this letter the writer evidently intends to make answer to some of the criticisms that have been aroused by his proposal to cheapen the degree of A. B. It is perhaps a good sign that President Butler feels called upon to reply at all. He resents the charge that by him education had been "wounded in the house of its friends"; but we confess that we do not see how to harmonize the letter with President Butler's other ideas. It reads as though he were still a stickler for the good old-fashioned education in all its pristine idealism. Especially noteworthy for us in these columns is its

reference to the education of medical students. We judge that the President of Columbia University has more conservatism in him than he has been given credit for. He may simply have been feeling out for expressions of opinion. If so, he has succeeded in good measure, for there has been a widespread and wholesome dissent from his proposal to trim education down to the standard of mere utility.

Dowie's Appeal for Cash.—If Colonel Mulberry Sellers were asked his opinion of John Alexander Dowie's gospel enterprise, he would probably say, "There's millions in it!" According to the *Outlook*, however, Dowie seems to be in some financial straits. His larger creditors, it is alleged, have recently published a report in which they find a "net worth over debts" of about three-quarters of a million dollars. This does not look like bankruptcy, and yet "Elijah II" has just issued a call to the faithful everywhere, begging for money and asking for loans of "\$5 and upward," secured by his personal note, his signature to which, he claims, "controls every cent of the \$23,000,000 of Zion's assets."

Whether this appeal indicates hard times, as the *Outlook* plainly hints, or whether it simply shows a shrewd business policy, the fact remains patent to all medical men that to heal disease by prayer after the manner of John Alexander Dowie is a remarkably more lucrative way than to heal it by the methods of scientific medicine.

Current Comment.

PRESIDENT BUTLER EXPLAINS.

You speak of me, among others, as proposing to "surrender" the college course. For twenty years I have been insisting, in season and out of season, that under no circumstances must the college course be surrendered or the ideal for which it stands in any way lowered.

In my annual report, presented to the trustees of Columbia University a few weeks ago, I devoted no little space to an argument that college training should be required of all men who enter our professional and technical schools. At present, this training is insisted upon as a pre-requisite by only four of the professional schools in the country—two of them schools of law and two schools of medicine. The schools of engineering and applied science are absolutely without any such pre-requisite at present, and the schools of law and medicine are crowded with incompetent students, who come to them straight from the secondary schools without having had either time or opportunity for that fundamental training which contributes to scholarly manhood, while it lays the only adequate basis for the professional study which is to follow.

—President Butler, of Columbia University, in the *"Philadelphia Press."*

A DEARTH OF SURGEONS.

When commissions in the United States army go begging there must be causes worthy of investigation. By some officers who have discussed the matter it has been said

that the examinations are too severe, and that a young physician must rank far above the general average to be able to pass them successfully.

The rank of the new assistant surgeon in the United States army is first lieutenant, with about \$1,600 a year pay, not enough to lure many men from the quiet path of general practice to the strenuous work of the army surgeon. After five years' service the assistant surgeon advances to the grade of captain, and there he remains, unless something extraordinary happens, for twelve or fifteen years, and if he is then still physically competent to perform the duties of the place he may become a surgeon, with the rank of a major. The army register shows that a few surgeons gained the gold leaf in less than ten years, and that one lucky man reached the grade of major in about seven years after his captain's commission was issued. But the majority of the sixty majors in the department had to wait from twelve to sixteen years for the promotion.

This condition is believed by many physicians to be one reason why the examining board has had mediocre material to deal with, and has been compelled to reject all but five of the candidates for the vacancies.

—New York Tribune.

THE NOVELIST AND THE DOCTOR.

An American novelist thinks himself exceedingly ill-used because his family doctor, of whom he had sought counsel as to the right manner of disposing of one of the creatures of his fancy, afterward sent him a bill for professional services. Would the novelist admit any right on the part of the doctor to ask him to write a short story for nothing?

—The Literary Digest.

Correspondence.

A TRIBUTE TO DR. DANIEL E. HUGHES.

By WILLIAM PICKETT, M. D., of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

Several years ago, in the exchange of Christmas greetings customary among the permanent resident staff of the Philadelphia Hospital, I presented to Doctor Hughes a copy of Carlyle's "Past and Present," in which I had marked the chapters on Labor and Reward.

"All true work is sacred—sweat of the brow; and up from that to sweat of the brain, sweat of the heart; which includes—all sciences, all spoken epics, all acted heroisms, martyrdoms—O brother, if this is not worship, then the more pity for worship; for this is the noblest thing yet discovered under God's sky."

Work, I thought then, and I think now, was Doctor Hughes' genius; colossal work, in forming every policy of the great institution which he dominated for twelve years, and permeating the very nooks and corners of Blockley. Once inside the gray old walls and you must be conscious of this; and whoever you were, you must be heedful of it as well, for the Chief Resident Physician was no respecter of persons, and everyone, from the messenger to the most distinguished clinician, knew that he must do his duty or meet a day of reckoning.

The system thus maintained was admirable, but it was so instinct with the personality of D. E. Hughes that those who have known Blockley the best, are now conscious of a hush through the place, as if a great force had suddenly ceased.

Yet had Doctor Hughes been merely a disciplinarian, would there be now—at his death—in the two offices which he used, with their two draped chairs, symbols of his two-fold service, along the interminable corridors and the

not unpleasant streets of our Blockley City of the Sick, in the wards where individual griefs, pains or phantoms of the mind press their claims, would there be now the hush which tells of genuine sorrow?

Dr. Hughes had several of the high qualities of leadership. One was the capacity for quick discernment of an available trait of character—perhaps “the one talent”—in a subordinate. In the assignment of a nurse, of an orderly, of a resident physician, his judgment was quick and sure, or what we blindly call intuitive.

Along with this capacity for judgment of character, and perhaps arising from similar qualities of mind, he had an extraordinary power of ready, epigrammatic statement, which appeared most characteristic when he had reason to discuss affairs connected with the institution or to estimate the worth of candidates for any of the numerous positions in his medical government. Undismayed by pros and cons he would state his opinion in a few strong, terse sentences; and he nearly always proved correct in the end.

This prompt judgment and virile diction are often traits of the Captains of Industry, and Doctor Hughes was first and foremost a medical man of affairs. He did not neglect the pure science; yet his mental attitude might be portrayed in two questions: “What is the matter with this patient?” “What shall be done?”

And this attitude of direct inquiry, continued in a large hospital for many years, had made him a great diagnostician and a great therapist of the older school. A glance revealed to him what others must discover by painstaking, slow, scientific method; and in like manner he chose deftly the successful line of treatment without recourse to much parleying over the physiological action of drugs; for he had that clinical intuition which, though nourished by experience, is apparently not created by it, but exists as a species of genius in a few.

Doctor Hughes was a pioneer in the use of several administrative measures for which, because he published none, he received no wide credit. Classification of the Insane by Wards—particularly segregation of violent cases—and the “bed treatment” of acute psychoses, these two measures were elaborated by him long before the present European agitation in their favor began.

Moreover, in our Detention Wards, crowded and poorly equipped as they are, has been carried on for years, under Doctor Hughes’ immediate supervision, the kind of work in the treatment of incipient insanity for which recently the Psychopathic Hospitals of New York State and similar hospitals of Scotland have been opened; namely, the special treatment of forms of insanity and of stages of insanity to which the legal process of commitment cannot be applied.

Of his personal traits perhaps the most striking was buoyancy. It was revealed in his step, his glance, the inflections of his voice. To most men who have lived in a hospital for years, the routine work seems at times a dreary round. Not so with Doctor Hughes; his interest and hope were fresh every morning, and even on his death-bed he planned for the future of his charge.

This same buoyancy made him delightful as a *raconteur*. His prodigious memory, beyond any that I have known, was stored with recollections of men of every class; for with Sir Thomas Browne he could say, “My conversation is like the sun’s, with all men.” When he reviewed a case, as he would in hours of relaxation, throwing himself back from his desk as if abandoning care, he was full of anecdote and humor, for his interest in them was not alone scientific; it was sociological and humanitarian.

No loss is irreparable. The duties of Chief Resident will be done well by others; and in the agitation for new and modern buildings there is promise of a bright era for

the Philadelphia Hospital. But in the minds of those to whom Blockley has become endeared, always associated with the memory of the vast gray buildings will be that of the massive frame and strong, unique personality of the late Chief Resident Physician, Daniel E. Hughes.

IN HONOR OF von ESMARCH.

By W. W. KEEN, M. D.,
of Philadelphia.

To the Editor of the Philadelphia Medical Journal:

I have just received a circular from a large and very influential committee in Germany, stating that in honor of the 80th. birthday of Prof. Friedrich von Esmarch, in Kiel, January 9, 1903, it will be marked by the erection of a monument in his native town of Tönning. The unveiling of the monument will not take place until the summer of 1903.

Prof. von Esmarch is so well known to the profession, and especially to the surgeons in this country, that I am sure many of them will be glad to take part in contributing to such a monument. Contributions can be sent to the Reichsbankhauptstelle in Kiel, or to the Städtische Spar- und Leihkasse in Tönning, Germany, or if any are forwarded to me, I shall be happy to transmit them. I would ask that any contribution should be sent within the next week or ten days, as the time is so very short.

Reviews.

The Diseases of Infancy and Childhood, for the Use of Students and Practitioners of Medicine. By L. Emmet Holt, M. D., LL. D., Professor of Diseases of Children in the College of Physicians and Surgeons (Columbia University), New York; Attending Physician to the Babies’ and Foundling Hospitals, New York; Consulting Physician to the New York Infant Asylum, Lying-in Hospital, Orthopedic and Hospital for the Ruptured and Crippled. With 225 illustrations, including 9 colored plates. Second edition, revised and enlarged. New York. D. Appleton and Company, 1902.

Every physician should read, and at intervals reread, the first three chapters of Dr. Holt’s book. Many points are there set forth that the busy practitioner is likely to overlook, and they are points that make for the health or the unhealth of the individual in later life. In these chapters the author describes the hygiene and general care of infants and young children; the growth and development of the body; and the peculiarities of disease in children. He then takes up the diseases of the newborn and after that describes the nutrition of children and finally takes up the diseases of the different systems of the organism.

The chapter on artificial feeding of infants is very full, although no mention is made of Westcott’s formulæ for the home production of percentage milk. The subject of percentage feeding is one of vital import and, for those who can afford the expense, the quickest and most convenient method is to use the milk laboratories with which, nowadays, all large cities are provided. In every city the majority of those who need percentage feeding most are unable to avail themselves of the laboratory facilities on account of the cost, and in the rural districts the laboratories are not to be had. For the physician who has patients belonging to these two classes Westcott’s formulæ are very satisfactory and are comparatively easy to work. Plate III, facing page 163, shows in a most instructive and diagrammatic manner the relative composition of woman’s milk, cow’s milk, canned condensed milk and several varieties of proprietary infant’s foods.

The descriptions of the different diseases are full and are well illustrated. The limits of a review do not permit of a notice of all the different points brought out by the author.

ention should be made, however, of the advice regarding the diagnostic use of tuberculin on page 1088. This paragraph might have been made more complete, and a statement of the author's experience in the use of this agent would have been an addition to it. The paragraphs devoted to the use of antitoxin in diphtheria are of much value. The author, as we should suppose, advocates immunizing doses of antitoxin in individuals exposed to diphtheria. The chapters on bronchopneumonia and lobar pneumonia will repay careful study. The author seems inclined to view the majority of cases of intestinal tuberculosis as secondary to pulmonary tuberculosis rather than as primary lesions.

On the whole, the book is an admirable exposition of the diseases of children, and we can recommend it to the student, to the general practitioner and to the pediatricist. The mechanical features of the book are excellent.

[J. M. S.]

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued monthly, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VII. **Materia Medica and Therapeutics; Preventive Medicine; Climatology; Forensic Medicine.** Edited by George F. Butler, Ph. G., M. D., Henry B. Favill, A. B., M. D., Norman Bridge, A. M., M. D., Harold N. Moyer, M. D., June, 1902. Price of the Series, \$7.50. Price of this volume, \$1.50. Chicago, The Year Book Publishers, 40 Dearborn Street.

This volume of 262 pages, and a satisfactory index, presents an admirable review of the advances made in the field of therapeutics during the last year. The work is divided into four general parts, the first of which deals with *Materia Medica and Therapeutics*, the second with *Preventive Medicine*, the third with *Climatology* and the fourth with *Forensic Medicine*. There has been a liberal and judicious selection made from the literature of the year with especial reference to the practical needs of the physician, and the editors have handled the vast amount of material with justice and discrimination. The hosts of new remedies which are recommended every year and the many new methods of treatment which are from day to day advocated, make it a necessity for the physician who is not specially interested in the field of therapeutics to the exclusion of his other work, to possess himself of some handbook which shall epitomize for him the results of each year's work. We can commend this little volume heartily.

[T. L. C.]

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Medical School. Volume X. **Skin and Venereal Diseases, Nervous and Mental Diseases.** Edited by W. L. Baum, M. D., and Hugh T. Patrick, M. D., September, 1902. Chicago, The Year Book Publishers, 40 Dearborn Street.

This series of hand-books has the advantage of being all in size. The work of the editors being restricted to a limited compass has enabled the publishers to issue the volumes promptly, and as a result we find references to the current literature as late as July, 1902, in the present volume. Dr. William L. Baum has contributed to this tenth volume a résumé of diseases of the skin and venereal diseases which seems in all respects satisfactory. That portion of the work devoted to nervous and mental diseases has been prepared by Dr. Hugh Patrick, with the collaboration of Dr. Charles L. Mix. As a ready work of reference this series is to be commended. While the editors have not attempted to give complete the literature of the subjects discussed, they have taken cognizance of the more important contributions. [T. L. C.]

The Nose and Throat in Medical History. By Jonathan Wright, M. D., Brooklyn, N. Y. 8 vo., cloth and gold, 250 pages, 10 illustrations. Price, \$2.00 net. Published by The Laryngoscope Co., St. Louis, Mo.

This amusing, interesting and instructive book, which appeared during the past year serially in the *Laryngoscope*, will be read with pleasure by all interested in this special branch of medicine. Dr. Wright has brought his trained experience as a successful writer in laryngology to this laborious and somewhat thankless task and has recorded, humorously and appreciatively, much information that would otherwise be out of the reach of the profession.

The book begins with the dawn of history and traces the gradual growth, decay and final regrowth of medical science. It shows how slowly truth is disentangled from the superstition and ignorance that surrounds it, and how a bit of knowledge frequently may be lost or misapplied and have to be found again *de novo*. Christian Science and similar cults, the outgrowth of the idealistic point of view in medicine, are shown to have existed from the beginning of time, it is shown also that, whenever such theory and dogma has ruled, medical progress has halted not to advance again until appeal has been made to facts instead of to authority.

The history of our knowledge of diphtheria, influenza, syphilis, catarrh, etc., of local anatomy, physiology, pathology and treatment, of operative procedures and instruments, is given in some detail. In a word, although not a big book, it covers the subject in a very satisfactory way.

[W. G. B. H.]

Twenty-fifth Annual Report of the New Jersey State Board of Health.

This, which is the report for the calendar year 1901, covers the usual statistical matter and reports from counties, boroughs and cities. There is a long account of the proceedings before the board in regard to the location of a cemetery. The statements have but little of sanitary interest, since the cemetery was regarded by all parties as not objectionable from that point of view, but certain business personal matters led to a strong opposition to the proposed establishment. The discussion is valuable as showing the tendency of health laws to be pushed into a domain not proper to them. [H. L.]

Contributions From the William Pepper Laboratory of Clinical Medicine. No. 2. Philadelphia, 1901.

The second series of contributions from the William Pepper Laboratory of Clinical Medicine, although smaller than the first, contains some exceedingly interesting articles. The majority are contributions by Dr. William G. Spiller, but the articles by Dr. D. J. McCarthy and Dr. C. Y. White are also noteworthy. The articles have all been published elsewhere and this volume consists of a collection of reprints bound together. The pages are of the same size, but the style of printing and the quality of paper varies considerably. A further disadvantage of this method is the fact that the illustrations differ considerably in excellence, according as the impression is good or not. For some reason the table of contents is repeated on the third page of the cover, and there is no index. This is unfortunate, because there is a considerable mass of material that is not sufficiently indicated by the contents. [J. S.]

The Ocular Manifestations of Diabetes.—Thilliez, in an extensive article in the *Journal des Sciences Médicales de Lille* (August 16 and 23, 1902), has reported the various ocular symptoms found with diabetes. These are noted in about two-thirds of all cases. Furuncles may affect the lids, and muscular paralysis, conjunctival hemorrhage, keratitis, iritis, cataract, hemorrhage into the vitreous with opacity, retinitis, optic neuritis, disturbances of accommodation and refraction, or hemiopia may occur. The most common condition found in iritis, cataract, holds second place in regard to frequency, while troubles in accommodation are often found. Most of the ocular conditions are due to the presence of an intoxication in the blood. This causes degeneration of the heart muscle, endarteritis, phlebitis, and hemorrhage. The occurrence of eye symptoms is a sign of the gravity of the diabetes. The treatment should be both local and general. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Society Meetings Next Week.—The following sections of the College of Physicians, Philadelphia, will meet next week at 8.15 P. M. Tuesday evening, November 18, Section on Ophthalmology; Wednesday evening, November 19, Section on Otology, and Friday evening, November 21, Section on Gynecology.

Dinner in Honor of Drs. Keen and Wood.—The dinner given at the Hotel Bellevue, November 6, in honor of Dr. W. W. Keen and Dr. H. C. Wood, to mark their safe return from a lengthy trip abroad, was attended by 136 physicians and surgeons. Dr. John H. Musser presided; Dr. William H. Welch, of Baltimore, spoke on medicine, with especial reference to the work done by Dr. Wood, to which Dr. Wood responded; Dr. William B. Coley, of New York, spoke on surgery, with especial reference to the work done by Dr. Keen, to which Dr. Keen responded. Dr. J. Chalmers Da Costa paid a heartfelt personal tribute to Dr. Keen, presenting him with a silver loving cup. Dr. Hobart A. Hare made a similar address to Dr. Wood, and presented him with a similar cup. Both cups were the gifts of the doctors assembled. Among the out-of-town guests were Drs. Abraham Jacobi, J. B. Bryant and W. B. Coley, of New York; J. Collins Warren, Maurice H. Richardson and Mixer, of Boston; W. H. Welch and A. McL. Tiffany, of Baltimore, former Surgeon-General G. M. Sternberg, Washington, and Dr. W. L. Estes, of Bethlehem, Pa.

The Health of Philadelphia.—For the week ending November 8 there were reported 3 cases of smallpox with no deaths, 36 cases of diphtheria with 3 deaths, 83 cases of scarlet fever with one death, and 124 cases of typhoid fever with 8 deaths. This is an increase over the preceding week in all the contagious diseases except diphtheria. Typhoid fever is also epidemic in Lancaster. Four cases of smallpox developed recently at Schuylkill Haven, near Pottsville.

Bucks County Medical Society.—At the annual meeting, held at Doylestown, November 5, the following officers were elected for the ensuing year: President, Dr. E. J. Groom, Bristol; vice-president, Dr. W. S. Erdman, Buckingham; secretary, Dr. C. B. Smith, Newtown, and treasurer, Dr. A. F. Myers, Blooming Glen. A paper on paralysis, its origin and treatment, was read by Dr. Samuel Wolf, Philadelphia. The next meeting will be held at Newtown.

Medical Club, Philadelphia.—A reception was given by the Medical Club, of Philadelphia, November 14, at the Hotel Bellevue, in honor of Dr. William M. Welch, president of the State Medical Society of Pennsylvania.

NEW ENGLAND.

Seventeenth Annual Conference of State and Provincial Boards of Health of North America.—This meeting was held at New Haven, Conn., October 28 and 29. The committee appointed to report a list of the diseases believed to be communicable and dangerous to the public health reported the following list: Typhoid fever, typhus fever, smallpox, chickenpox, measles, scarlet fever, whooping cough, diphtheria, influenza, cholera, yellow fever, bubonic plague, mumps, German measles, glanders, hydrophobia, malaria, consumption, epidemic cerebrospinal meningitis, pneumonia, puerperal fever, epidemic dysentery, erysipelas, beriberi, leprosy, anthrax and actinomycosis. This committee consisted of Dr. C. S. Caverly, Vermont, Major W. C. Gorgas, Havana, and Dr. O. U. B. Wingate, Wisconsin. The production and control of vaccine virus and antitoxin was discussed by Dr. O. U. B. Wingate, secretary of the Wisconsin State Board of Health. The treatment of smallpox was discussed by Dr. C. O. Probst, secretary of the Ohio State Board of Health. A discussion on yellow fever followed, Dr. C. T. Finlay, of Havana, opening the discussion. The delegates declined to accept as proven the theory that yellow fever is spread by mosquitoes alone. The president, Dr. H. M. Bracken, Minnesota, delivered his address on the "State in its Relation to the Tuberculous." The address of welcome was delivered by Dr. W. H. Brewer, president

of the Connecticut State Board of Health. Resolutions were passed, denouncing the health authorities of San Francisco for their negligence in not reporting the cases of bubonic plague among the Chinese in that city, and in having denied the existence of the plague while the disease was constantly spreading. The following officers were elected for the ensuing year: President, Dr. I. A. Watson, Concord, N. H.; vice-president, Dr. J. Guiteras, Havana; secretary, Dr. G. T. Swarts, Providence, R. I., and treasurer, Dr. A. E. Eagan, Springfield, Mass.

Framingham Hospital.—Two donations of \$1000 each have recently been received by this hospital, from members of firms whose factories are located in Framingham.

Colonies of Insane Patients.—The Massachusetts Board of Insanity has established a settlement of 15 insane patients in Western Massachusetts. The patients are not violent, and it is hoped that the life in the open air, in the center of a tract of hundreds of acres of the Taconic Hills may lead to the recovery of some of them.

Smallpox in New England.—Webster, Mass., has been having quite an epidemic of smallpox for the past 2 weeks. Thirty-five cases were reported November 8. A case of smallpox was recently found in Marlboro, Mass., where general vaccination has been ordered. Boston still has over 30 cases and Biddeford, Me., has had several cases reported in the past 2 weeks. The board of health of Somerville, Mass., has made vaccination compulsory.

Caleb Fiske Prize Essay.—The trustees of the Caleb Fiske Fund, Providence, R. I., have announced as the subject of the prize essay for next year, "Auto-intoxication as a Cause and Complication of Disease." Essays should be sent, before May 1, 1902, to the secretary of the trustees, Dr. Halsey de Wolf, 212 Benefit street, Providence, to whom inquiries regarding the contest may also be addressed.

Diphtheria at Newmarket, N. H.—The schools have been closed and no church services were held last Sunday in Newmarket on account of an epidemic of diphtheria existing there. Over 30 cases have been reported.

A Bequest.—By the will of the late Mary Louise Ruggles, of Brookline, Mass., \$10,000 were left to the Massachusetts General Hospital from the income of which several free beds will be maintained in the hospital. A number of homes and other charitable institutions each received \$3000 also.

SOUTHERN STATES.

Johns Hopkins Medical School.—Dr. and Mrs. C. A. Herter, of New York City, have given \$25,000 for the foundation of a memorial lectureship in the Medical Department, designed to promote a more intimate knowledge of the researches of foreign investigators in the realm of medical science. This end is to be secured by inviting each year some eminent worker in physiology or pathology to deliver one or more lectures at the Johns Hopkins University upon a subject with which he has been identified. The lecturer will receive as an honorarium the annual income of the endowment. The committee to select the lecturer will consist of Dr. W. H. Welch, Dr. William Osler and Dr. J. J. Abel, subsequent vacancies in this committee being filled by choice of the remaining members in such a way that pathology, physiological chemistry and clinical medicine shall continue to be represented. There is no bar to opening the proposed lectureship to leaders in medical research in this country if this should ultimately appear desirable.

Smallpox in Maryland.—There are but 4 cases of smallpox at present in the State of Maryland. Three of these appeared last week on Elliott's Island, Dorchester county, and one in Cumberland. The Health Commissioner of Baltimore urges general vaccination.

Manganese in Virginia.—A continuous vein of manganese, of sufficient bulk to warrant experts to plan its development at the rate of 50 tons a day, has been discovered near Lynchburg, Va.

Negroes and Consumption.—The rapid spread of tuberculosis among negroes has been the main subject of discussion at the recent meeting of the Indiana State Medical Society. While there has been some improvement among white people, tubercular infection remains prevalent among the negroes who constitute practically all the domestic servants. In New Orleans the mortality among the negroes is 4 times as great as among the whites; in the country it is

on 6 to 10 times as great. Further, tuberculosis is nearly twice as prevalent among the negroes as it was 20 years ago. Galloping consumption is the most common form. While the white consumptives are hopeful, the negro is hopeless from the beginning. Sixty-nine per cent. of negroes died within one year. The spread of consumption among the negroes is due to irregular habits and overcrowded and unhygienic conditions.

Navy Medical School, Washington.—A postgraduate school for the instruction of medical officers in the United States Navy was opened November 3. The first lecture was delivered by the president of the faculty, Dr. R. A. Marion. The school affords an advanced course for medical men in the Navy. The present class consists of the 12 assistant surgeons who have recently been appointed. A course of 5 months' instruction will be given them before they are assigned to other duties. The school occupies a portion of the building formerly used as the Naval Observatory.

Insane Hospital, Farnhurst, Del.—A new building is soon to be built, to cost about \$10,000, for patients with tuberculosis. As several new cases of smallpox have been discovered in Wilmington, no visitors are allowed in the institution.

Cocaine Habit Among Negroes.—The alarming growth of the use of cocaine among Mississippi negroes has suggested medical laws for suppressing the evil. Thousands of victims exist among the negroes near Jackson, Miss.

Episcopal Eye, Ear and Throat Hospital, Washington.—A new building will soon be erected for this hospital, on the east side of Fifteenth street, between L and M streets. The ground has been purchased at the cost of \$1,000.

Tri-State Medical Society, of Alabama, Georgia and Tennessee.—At the annual meeting held at Birmingham, Ala., October 8 to 10, the following officers were elected for the ensuing year: President, Dr. Michael Hoke, Atlanta, Ga.; vice-presidents, Drs. C. H. Peete, Macon, Ga., W. L. Nolen, Chattanooga, Tenn., and L. C. Morris, Birmingham, Ala.; secretary, Dr. F. T. Smith, Chattanooga, Tenn., and treasurer, Dr. G. R. West, Chattanooga, Tenn. The next meeting will be held at Atlanta, Ga.

Diphtheria.—An epidemic of diphtheria is reported at Morgantown, W. Va., where the public schools have been closed. Three deaths have already occurred and a large number of children have been affected. Not only has a quarantine been established against diphtheria, but on account of a number of scarlet fever cases, quarantine has also been established against that disease.—Diphtheria in malignant form is also reported in Greenwood, near Laurel, Md. The public schools have been closed, and meetings in churches and secret societies have been forbidden.

MISCELLANY.

Blindness in Porto Rico.—There are almost 2000 blind people on the Island of Porto Rico, an average of one to every 480 of the population. The main cause of blindness in Porto Rico is gonorrheal ophthalmia. There is no doubt that, were the disease properly treated at birth, the percentage of blindness would be greatly decreased. Regulations for the treatment of the condition at birth have been enforced since the American occupation of the island.

The Sanitation of Cuba.—A circular has been issued by the Department of Government in Havana, calling the attention of provincial officers to the observation of hygienic precautions. They are instructed to enforce vaccination and revaccination, in order to guard against the possible introduction of smallpox. Both vaccination and revaccination are made obligatory in Havana.

Cholera in Egypt.—The epidemic is rapidly disappearing, only 140 cases, with 132 deaths, having been reported throughout all Egypt for the week ending November 8.

Cholera in the Philippines.—Cholera continues to be intermittent in different parts of the archipelago. Up to November 9, the recorded total of cases is 105,000, with 67,000 deaths. It is believed that the actual number of cases exceeds those recorded by 20%.

French Medical School in China.—The Governor of Cochin China reports that the university being erected in Annam is almost completed. This was founded by the French Government for the instruction of native physicians, especially for observation regarding tropical diseases. The institution is to have a bacteriological department under the auspices of the Pasteur Institute, Paris, and an agricultural laboratory. It is expected that Europeans becoming ill in the colony will be cared for by the university.

Obituary.—Dr. Woodford M. Vertrees, at East Nashville, Tenn., October 22, aged 76 years.—Dr. Theodore F. C. Van Allen, at Albany, N. Y., October 28, aged 41 years.—Dr. Benjamin F. Holcomb, at Fostoria, Ohio, October 21, aged 67 years.—Dr. Joseph C. Rutherford, at Newport, Vt., October 20, aged 84 years.—Dr. Joseph Sylvester Richmond, at Windsor, Vt., October 22, aged 74 years.—Dr. John Henry Howard, at St. Louis, Mo., October 24, aged 75 years.—Dr. Charles E. Jackson, at Massillon, Ohio, October 24, aged 40 years.—Dr. Asa B. Gardner, at Bellville, Texas, October 22, aged 50 years.—Dr. William Young, at Cold Spring, N. Y., October 26, aged 82 years.—Dr. Joseph Senay, at Salem, Mass., October 20, aged 34 years.—Dr. Hubert Sleeper, at Meriden, N. H., October 22, aged 65 years.—Dr. William J. W. Purnell, at Milford, Del., October 19, aged 78 years.—Dr. Ernest G. Carleton, at Morenci, Ariz., October 20, aged 37 years.—Dr. J. Franklin Appell, at Lake City, Fla., October 20.—Dr. James W. Davis, at Fayetteville, Tenn., October 24.—Dr. John N. Greene, at Leslie, Mich., October 23, aged 51 years.—Dr. A. J. Schmidt, at Cedar Rapids, Iowa, November 3.—Prof. Pierce Butler Wilson, at Baltimore, Md., November 3, aged 66 years.—Dr. Samuel C. Fechtif, at Wellersburg, Pa., November 2, aged 80 years.—Dr. James E. Haines, at Elkton, Md., November 1, aged 65 years.—Dr. Wilmot Ayres, at Harrisburg, Pa., November 7, aged 54 years.—Dr. Robert C. Kendzie, at Lansing, Mich., November 7, aged 79 years.—Dr. R. R. Crothers, in Cecil County, Md., November 8.—Dr. Henry M. Cox, at Washington, N. J., November 7, aged 65 years.—Dr. Charles H. Hollingsworth, at Harrisburg, Va., November 9, aged 45 years.

GREAT BRITAIN, ETC.

Huxley Memorial Unveiled.—A tablet in memory of the late Professor Huxley was unveiled October 23, in the public library at Ealing, his birthplace. An address was made by Professor Henslow, who mentioned that among the subscriptions received was one from a U. S. Naval officer in the Philippines and another from a dockyard laborer whom Huxley had once befriended.

Bubonic Plague.—A book upon bubonic plague and the investigations of the last 2 years has just been issued by the Local Government Board, London. It seems that the disease must become acclimatized before it can become epidemic. As it first appears, the disease may resemble influenza, malaria or typhoid fever, yet where the officials and physicians are watching for the plague, they generally detect its appearance. Man and rats are reciprocally infective, yet it is impossible to determine the degree that man is in danger through the rat. Either may be attacked before the other, or both may suffer at the same time. Besides, the interval between the invasion from the first to the second species has often extended from weeks to months. Finally the plague may prevail among men without rats being affected, or vice versa. Investigators do not expect a reappearance of the plague in severe form in Europe or America.

Hospital for Children with Hip Disease.—The new hospital for children suffering from hip disease, which has been erected at a cost of \$60,000 near Sevenoaks, was opened October 16.

Wholesale Inoculation Against the Plague.—The Government of the Punjab province, India, intends inoculating 7,000,000 persons with antiplague serum during the next 5 months. The superintendent of the Government laboratory at Bombay has been instructed to supply serum at the rate of 50,000 doses a day.

Dover Hospital.—The extension, erected as a memorial to the late Queen Victoria, has just been completed, and the institution has been opened for the reception of patients.

The Indian Cure for Snake Bite.—During 1901, 22,810 deaths occurred in India from snake bites. A popular remedy in common use in Bombay is scarification of the wound, into which malt vinegar is then rubbed for 3 hours and a half continuously. After a half hour's rubbing, the limb affected becomes scarlet, later it turns green, and at the end of 5 hours it is quite black. This remedy has been used for the bites of animals and snakes with success, and successful experiments have been carried out on animals, according to the surgeon to the Governor of Bombay. It has also been suggested that Calmette's antivenene could be manufactured at less expense in India than the cost of importing the serum from France, as at present.

Mason Research Scholarship.—Mr. J. F. Mason, of Woodstock, Oxfordshire, has recently instituted a research scholarship, of the annual value of \$1,000, for the study of the thymus and other ductless glands. Dr. Swale Vincent, lecturer on histology at University College, Cardiff, has been appointed the first incumbent. He has elected to work at Edinburgh, in Professor Schäfer's laboratory. Mr. Mason has also given \$1,000 to the laboratory of the Royal College of Physicians to enable the medical superintendent, Dr. Noel Paton, to carry out a combined research on the ductless glands. Mr. Mason's interest in this subject is due to the sudden death of his young child, which was attributed to hypertrophy of the thymus gland.

Notes.—Twelve per cent. only of the British army are 5 feet 10 inches or over in height.—An official return published recently, states that there are 110,713 notified lunatics in England and Wales; the average annual increase during the last ten years was 2,286.—Since 1858 the number of lunatics in Scotland has increased by 180 per cent., while the population increase has been only 49 per cent.—There is now one lunatic in Ireland for every 178 of the population.—In Liverpool, which is the densest and unhealthiest district in England, the population is 63,823 to the square mile.—The longest speech in the British Parliament was made by Mr. Gladstone, when introducing the budget in 1853. He spoke for 5¾ hours.—Over 500 women in Great Britain have obtained the degree of M. D.—An English lady, Miss Ethel Bloome, has taken the degree of M. D. at Leipsic. She is the first lady doctor to graduate at the German University.—In London each day 400 children are born and 250 enter school for the first time.

English Eyes Degenerating.—Recent inquiries in England and on the Continent show a great increase in the number of people wearing eye-glasses. Opticians are selling twice as many pairs of glasses as they did 10 years ago. The cause of this seems to be the dust and fog, together with traveling underground, the hurried reading of small print, etc. An optician believes that the English nation will soon be as bespectacled as is the German.

Surgeon-General Hamilton Dead.—John B. Hamilton, a graduate of Trinity College, Dublin, member of the Royal College of Surgeons of England, and a graduate in medicine of the University of Dublin in 1863, surgeon-general of the Army, retired since 1898, died suddenly, October 25, in London, in his 64th. year. He acted as Army Surgeon in India, Barbados, Jamaica, British Honduras and South Africa. Among his many medical articles was an essay on cholera, a disease from which he suffered twice while in India.

CONTINENTAL EUROPE.

University Notes.—Berlin: The new pharmaceutical institute, under the direction of Professor H. Thoms, was opened October 27 last, in Steglitz-Dahlem.—The title of professor has been granted to Drs. P. Jacob and M. Michaelis, assistants to von Leyden, and Drs. Rosin and Strauss, assistants to Dr. Senator.—Göttingen: Dr. Aschoff has been appointed director of the pathological institute until April 1, 1903, when Dr. Hugo Ribbert, of Marburg, becomes professor of pathology in Dr. Orth's place.—Graz: It is rumored that either Dr. Chvostek or Dr. Lorenz, of Vienna, will be chosen professor of internal medicine, in the place of Dr. Friedrich Kraus, who has gone to Berlin.—Helsingfors: Dr. Runeberg, professor of clinical medicine, celebrated his 25th. anniversary as a university teacher, October 3.—Kiel: Dr. Friedrich von Esmarch, professor of sur-

gery, will celebrate his 80th. birthday, January 9, 1903. On that day it is expected that a memorial will be unveiled at his birthplace, Tönning, in honor of this well-known surgeon, whose reputation both in civil and military surgery surpasses that of any man living in Germany. Subscription for the erection of this memorial are now being collected.—Moscow: Dr. Constantin Pawlinow has been appointed professor of therapeutics, a position which has been vacant for 2 years.—Dr. Rein has been appointed professor of operative surgery and topographical anatomy.—Munich: Dr. Carl Kupffer, the well-known anatomist, who has recently been retired, has had an attack of apoplexy, but it is said his condition is already improving. Professor Kupffer is a Russian, and was a student at Dorpat University, where he became later prosector and professor of anatomy.—Vienna: The old building of the St. Anna Hospital for Children will be torn down next spring and a new larger building, with modern equipment, will then be erected in its place. As the wards are located in the old building, no children will be taken into the hospital while the new building is being erected. The dispensaries, however, will be held as usual. The new buildings will contain offices, wards, laboratories, kitchen, laundry, dispensaries and operating rooms.

Mortality From Phthisis in Europe.—The following statistics have been published by the Imperial Health Office, Berlin. Russia has more than 4000 deaths per 1,000,000; Austria-Hungary and France more than 3000 per 1,000,000 population; Sweden, Germany, Switzerland and Ireland more than 2000 per 1,000,000 population; Netherlands, Italy, Belgium, Norway, Scotland and England more than 1000 deaths per 1,000,000 population.

Fourteenth International Medical Congress, Madrid.—This congress, which meets at Madrid in April, 1903, will be attended by a large number of American physicians. Arrangements have been made by a party of physicians for a trip of one month, including first-class passage on steamer and railway, hotel accommodations, including room, meals, baggage, interpreter and fees for 14 days in Spain, at the special rate of \$265 for the round trip. The trip will be via Gibraltar and Cordova to Madrid. Side trips to interesting parts of Spain and a return by another route may be arranged. Those desiring further information can communicate with Dr. Ramon Guitéras, 75 West 55th. street, New York City. This congress will meet in 16 sections, as follows: 1. Anatomy, including anthropology, comparative anatomy, embryology, descriptive anatomy, normal histology and teratology. 2. Physiology, including biological physics and chemistry. 3. General Pathology, including pathological anatomy and bacteriology. 4. Therapeutics and Pharmacy, with 3 subsections, therapeutics, medical hydrology and pharmacology. 5. Internal Pathology. 6. Nervous and Mental Diseases and Criminal Anthropology. 7. Pediatrics. 8. Dermatology and Syphilography. 9. General Surgery, with 2 subsections, surgery and operative surgery, and genito-urinary surgery. 10. Ophthalmology. 11. Oto-rhino-laryngology, with 2 subsections: otology and rhinology. 12. Odontology and Stomatology. 13. Obstetrics and Gynecology. 14. Military and Naval Medicine and Hygiene. 15. Hygiene, Epidemiology and Sanitary Science, and 16. Medical Jurisprudence and Toxicology.

Rats Affected with Bubonic Plague.—Of the 1,550 rats gathered in Odessa and brought to the Municipal Laboratory, 7 proved to have died of plague. These rats were found in the neighborhood of the market where several cases of plague developed.

Obituary.—Dr. Johannes Bockendahl, professor of medical jurisprudence, died at Kiel, October 17, aged 75 years.—The recent death is also announced of Dr. Hermann Eulenberg, at Bonn, in his 89th. year.—Dr. Lucien Laroyenne, adjunct professor of gynecology in the University of Lyons, formerly chief surgeon in the Charité Hospital, Lyons, corresponding member of the French Academy of Medicine, president of the International Gynecological Congress at Amsterdam, in 1900, and formerly president of the Society of the Medical Science of Lyons, died recently in Lyons, aged 71 years.—Dr. W. Schwanert, professor of chemistry and pharmacy at Greifswald, died October 17, aged 74 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

October 25, 1902.

1. The Harveian Oration on the Heart and Nervous System. DAVID FERRIER.
2. Discussion on the Treatment of Inoperable Cancer. HENRY MORRIS, G. T. BEATSON, THOMAS BRYANT, ROBERT B. WILD, W. F. BROOK, F. B. JESSETT, G. FERGUSON, LOVELL DRAGE, HERBERT SNOW, HORACE MANDERS, J. PAUL BUSH and J. D. McFEELY.
3. A Discussion on Tuberculosis of the Testis, Prostate and Seminal Vesicles. THOMAS MYLES, NICHOLAS SENN, F. C. VALENTINE, J. MURPHY, JORDAN LLOYD, WILLIAM MACEWEN, RUTHERFORD MORISON and F. A. SOUTHAM.
4. Two Cases of Chronic Pancreatitis Treated by Laparotomy. EDMUND OWEN.
5. Experiences in the Extirpation of Tuberculous Lymph-Glands During the Last Thirty Years Comprising over 300 Operations. RUSHTON PARKER.
6. The Value of the Imperfectly Descended Testis. W. McADAM ECCLES.
7. A Discussion on Radiography, X-ray Treatment, the High-frequency Method and Light Treatment. FREUND, J. H. SEQUEIRA, S. E. DORE, J. M. H. MacLEOD, J. F. HALL-EDWARDS, P. S. ABRAHAM, CHISHOLM WILLIAMS, G. G. S. TAYLOR, GEORGE PERNET, NORMAN WALKER, R. B. WILD and GEORGE LANCASHIRE.
8. A Note on the Histology of X-rayed Lupus Vulgaris. GEORGE PERNET.
9. The Pathological Changes in the Skin Produced by the Rays from a Finsen Lamp, with Special Reference to Lupus Vulgaris. J. M. H. MacLEOD.
10. The T. R. Tuberculin Treatment of Lupus Vulgaris at University College Hospital. H. RADCLIFFE CROCKER and GEORGE PERNET.
11. Blastomycetic Dermatitis in the Negro. T. C. GILCHRIST.
12. Lupus Erythematosus from the Clinical Point of View. J. H. SEQUEIRA and H. BALEAN.
13. A Discussion on the Treatment of Psoriasis. MALCOLM MORRIS, LESLIE ROBERTS, GEORGE PERNET and ALFRED EDDOWES.
14. Seborrhea. NORMAN WALKER.
15. Tumors of Xeroderma Pigmentosum. GEORGE PERNET.

2.—Morris concludes his paper on the treatment of inoperable malignant disease as follows: (1) That the bacterial treatment of malignant disease is not of the slightest use in carcinoma; that not one-half of the cases of spindle-celled sarcoma disappear under treatment with Coley's fluid; that in cases of sarcoma, other than the spindle-celled variety, Coley's fluid is of no value; that the treatment with Coley's fluid has many dangers and should never be employed except in absolutely inoperable cases. (2) That Beatson's treatment is limited in its action to cases of mammary carcinoma, and to the local and glandular recurrences following the removal of mammary carcinoma; and that even in these cases only a small proportion is influenced by the treatment; that as a curative or as a palliative agent it cannot be relied upon in any given case. (3) That rodent ulcer has in Finsen's light and the X-rays its most successful treatment, so far as we at present know; and that this is true not only of cases otherwise inoperable, but also of operable cases, because of their excellent cosmetic effect upon insidious and nonevident foci. There are, nevertheless, cases of rodent ulcer which resist the light and others which resist the X-ray treatment, but some of these cases, however, are successfully treated by excision and caustics. (4) That sarcoma, epithelioma and other forms of carcinoma are best treated, whenever possible, by early excision; and that all forms of treatment hitherto tried in operable cancers of these varieties are uncertain and inconstant in their effects, and unreliable as to the durability of the results they produce.

In the vast majority of cases they are without palliative influence of any kind, except possibly in relieving pain. (5) That the boundary line between what are considered operable and inoperable cases requires revision from time to time; that the tendency to extend the limits of operable cases needs in some instances to be restricted, and in others there may prove room for further extension. (6) That it is open to question whether some of the operations performed for relief or prolongation of life in inoperable cases of malignant disease should not be abandoned, and whether in other cases palliative operations ought not to be more often performed. (7) That investigations into both the cause and nature of cancer are of the first importance as being more likely ultimately to lead to cure than any treatment at present known. (8) That, with but few exceptions, the attempts to cure cancer by means other than early and free operation have been hitherto almost invariably futile.

[F. T. S.]

3.—Myles is convinced that tuberculosis of the testicle is a primary disease. When the disease is localized he advocates resection of the tubercular nodule, but not castration. When the seminal vesicles and prostate are involved, operation is valueless unless there be a suppurating testicle the removal of which stops a drain upon the patient's strength. Operation on bladder ulcers from the perineum is practically impossible and likely to lead to infection of the prostate. Operation by suprapubic route is prone to be followed by pelvic cellulitis or perforation of the bladder. In a limited number of cases one may gain access to the disease through a suprapubic wound and drain the bladder through the perineum. [F. T. S.]

4.—Owen relates the histories of 2 cases of chronic pancreatitis in which recovery followed exploratory abdominal section. In one case the condition was mistaken for malignant disease and a hopeless prognosis given; the second patient was operated upon for cholelithiasis, but no stones were found. In neither of these cases was the gall-bladder drained. Owen questions whether drainage of the gall-bladder is a necessary part of the operative treatment of chronic pancreatitis. [F. T. S.]

5.—Parker has performed the operation of excision of tubercular lymphglands 318 times on 224 individuals. There was one operative death, due to a secondary hemorrhage from the internal jugular vein. Only 4 of the patients succumbed to phthisis. Parker urges thorough operation both in the mild and in the most severe cases.

[F. T. S.]

6.—In considering the value of imperfectly descended testicles, Eccles points out that these organs remain puerile throughout life. When the arrest in descent is bilateral, the growth of the entire body is interfered with. The normal testicle has 2 functions: (1) The formation of the male elements of generation; and (2) the elaboration of an internal secretion. An undescended testicle never gains the former function. An undescended testicle which has been exposed in an operation for hernia may be brought down into the scrotum and sutured, it may be placed within the abdomen and the inguinal canal closed entirely, or it may be removed. An undescended testicle which has been anchored in the scrotum does not grow and does not produce spermatozoa, and the organ frequently ascends to a considerable extent after the operation. The return of the testicle within the abdomen allows a complete closure of the abdominal wall and does not hinder any functions which the organ has or may develop. There is a want of definite evidence that an abdominal testicle is especially liable to become the seat of malignant disease. When both testicles have been arrested in their descent, neither should be removed, for the amount of internal secretion that they together may produce may be sufficient to cause a proper development of the body in general. [F. T. S.]

7.—Used in weak doses the X-rays favor such organic processes as the growth of hair and the production of pigment. But in stronger doses they lower vitality and produce inflammatory reaction or actual necrosis. All spark discharges may cause physiological effects by the mechanical bombardment of the tissues, by the production of heat, by the chemical effects such as the formation of ozone and by the ultraviolet ray formation. The apparatus of D'Arsonval is useful in the treatment of pruritus, lupus erythematosus, pityriasis versicolor, acne vulgaris, rosacea

and pigmentary abnormalities. The effective factors in the X-ray treatment, according to Freund, are the X-rays themselves and the electric surface tension of the tube. The diseases suitable for X-ray treatment are ringworm, favus, sycosis hypertrichosis, lupus and epithelioma. About the same length of time is required for the treatment of lupus vulgaris with the X-rays as is required for its treatment with Finsen's method. Clinically, the X-rays produce intumescence of the skin, mild erythema, pigment changes, loosening of hairs, itching, burning, etc. It is not yet known whether the inflammatory reaction or bactericidal effects are responsible for the result with Finsen's lamp. The X-rays possess no bactericidal properties. Sequeira said that complete excision is the best treatment for early cases of rodent ulcer; but that X-ray treatment gives the best results in most instances. Of 80 cases treated at the London hospital, 34 were entirely healed. The treatment of epithelioma of the skin is occasionally successful. Fungating tumors are scarcely influenced at all. The indications for the application of X-rays in lupus are a large area, an ulcerated surface and the involvement of mucous membranes. The disadvantage of the X-rays is the production of severe dermatitis. Dore said that the chief advantage in the light treatment of skin diseases is in the excellence of its effect from a cosmetic standpoint. MacLeod said that X-rays are certainly not bactericidal while the Finsen rays are bactericidal. [J. M. S.]

9.—MacLeod studied the changes produced in the skin by the Finsen rays in 2 cases. He concludes that the action of the actinic rays on the granuloma of lupus is essentially destructive, and that this destructive process is indirectly produced and is simply the result of an ordinary inflammatory reaction. The effect of the rays on the surrounding tissue is negligible, so that the doubtful tissue in the neighborhood of a patch of lupus may be safely exposed to them without subsequent injury and scarring. The destructive process, if the rays are judiciously employed, is not of such an intensity as to prevent subsequent repair, and, a few days after it has reached its acme, a process of construction sets in similar to that which takes place in the healing of an inflammation. The process of construction is capable of replacing the destroyed granuloma with healthy fibrous tissue, forming a pliable scar, and the epidermis completely recovers from the edema caused by the action of the rays. Hence from the histological standpoint the treatment of lupus and other granulomatous affections of the skin with the actinic rays is an ideal one. [F. T. S.]

10.—Crocker and Pernet find that up to a certain point tuberculin T. R. has a beneficial influence on lupus vulgaris. Its greatest benefit is seen in the ulcerative forms of the disease, while in the nodular forms its effects are trifling or negative. Local injections apparently give better results than those applied at a distance from the diseased area. In order to secure a permanent result, the use of tuberculin T. R. should be followed by the prolonged administration of thyroid extract. The drawbacks of the treatment are (1) the expense and (2) the length of time required. [J. M. S.]

11.—Gilchrist reports a case of blastomycetic dermatitis, gives a minute description of the disease and exhibits a number of photographs. Thirty-three cases have thus far been recorded. The best treatment consists in the internal administration of potassium iodide. The local application of the X-ray has also been recommended. [F. T. S.]

12.—The authors conclude that lupus erythematosus is due to a circulating poison or toxin; that in its acute disseminated form it is associated with tuberculosis in the majority of cases, but that in the discoid form this association is much less apparent; that the occurrence of albuminuria is part of the toxic effect in acute cases; that the toxin acts through the vasomotor system, and that local irritation and poor peripheral circulation sometimes determines the site of the lesion. [F. T. S.]

13.—As a general rule, no internal medication should be employed in the treatment of psoriasis except in response to a definite constitutional indication. When hyperemia or active inflammation is present, antimony is called for. If nervous symptoms are present, bromides should be given. In the local treatment of the disease bactericidal

substances, the most efficacious of which is chrysarobin, give the best results. Arsenic is useful in the cases accompanied by nervous symptoms and by joint diseases.

[J. M. S.]

LANCET.

October 25, 1902.

1. The Harveian Oration on the Heart and Nervous System. DAVID FERRIER.
2. An Address (Abstract) on Tuberculosis of the Peritoneum from a Clinical Point of View. EDMUND OWEN.
3. Three Lectures on Some Morbid Conditions of the Mouth. Lecture III. EDMUND W. ROUGHTON.
4. Illustrative Cases of Gunshot Wounds of the Skull and Brain. L. G. IRVINE.
5. Mental Dissolution the Result of Alcohol. ROBERT JONES.
6. A Case of Extra-uterine Associated with Intra-uterine Fetation in which Abdominal Section was Performed. JOHN PHILLIPS.
7. Strangulated Hernia in a Woman, 90 Years of Age. Operation; Recovery. EDWARD F. M. NEAVE.

2.—Owen delivered an address on tuberculosis of the peritoneum from a clinical point of view, which appears as an abstract. The author points out the great difficulty sometimes encountered in making a correct diagnosis of tuberculosis of the peritoneum, and he records a case illustrating this difficulty. He contends that an unusually large amount of assistance in these cases can be obtained by careful inspection of the patient. He also records brief notes of a case which show how slight the symptoms of this condition might be; often the only complaints of the patient are of a dyspeptic nature or there may be possibly suffering, with either constipation or diarrhea, and perhaps vomiting. The characteristic feature of the disease is that the patient steadily wastes. Together with the effusion in tuberculosis of the peritoneum in many cases hard masses of omentum may be discovered, which have been rolled together and attached to the thin abdominal walls in one or more situations. He maintains that these masses are highly suggestive of tuberculosis. He finally discusses the results obtained by abdominal incision in cases in which an apparently hopeless condition is present, and he details at some length the reports of several cases which were operated upon. He points out that we cannot at present satisfactorily explain the way in which tuberculosis of the peritoneum is relieved and in many instances cured by incision into the abdomen. [F. J. K.]

3.—Roughton concludes his lectures on some morbid conditions of the mouth. In the first lecture the author called attention to the fact that the line of penetration in dental caries is often in the direction of the pulp, that the latter may be deprived of its natural covering and become infected by the bacteria of the mouth. Inflammation follows and frequently leads to the death of the pulp which becomes a decomposing, necrotic mass. Death of the pulp may occur in the absence of dental caries, and micro-organisms circulating in the blood may reach the pulp chamber of a tooth, which a casual observer might regard as a healthy one. The commonest result of a dead and septic pulp is an acute alveolar abscess, which condition he describes at some length and details the results of 3 cases illustrating this condition. He also describes 2 forms of chronic alveolar abscess, the fistulous and the blind variety. He discusses the treatment of this condition and concludes the lectures by a consideration of the prevention of dental caries, the care of the mouth in febrile conditions and the importance of antiseptics in mouth operations. [F. J. K.]

4.—Irving discusses gunshot injuries of the skull and brain based on a study of 30 cases, occurring recently in South Africa. The majority of deaths occurring on the field are due to wounds of the skull and brain. Gunshot wounds of the chest rank next in the production of immediate death. Irving thinks that 7 out of 10 penetrating gunshot wounds of the skull are immediately or rapidly fatal. Notwithstanding these statements the recoveries in this class of injuries have been surprisingly large when compared with those of former wars. This is not only due to the systematic use of antiseptics, but also, and in a much greater degree, to the properties of the small-bore bullet, its high penetrating power, its smaller liability to distortion and its general initial asepticity. Irving states that he has observed 12 cases in which recovery took place after complete perforation of the cranial cavity. Solid small-bore bullets are capable, if at close range, of considerable explosive effects. These are more marked when the bullet comes in contact with the shafts of the long bones and is less marked in the skull. All gunshot fractures of the base involving the middle or posterior fossa, or both, with penetration of the cranial cavity and base of the brain, are at all ranges either immediately or ultimately fatal. As the range at which the wound is inflicted increases, the character of the injury becomes progressively less severe. A description is then given of gutter fractures, superficial and deep perforating fractures. Of 9 cases of deep perforating fractures observed by Irving 7 recovered. Six of these patients were followed up for at least a month after operation, at this time they could talk quite intelligently about their wounds and their experiences, but the power of continued mental exertion was soon exhausted. One interesting case is recorded in which a soft-nosed, Mauser bullet entered the skull through the nasal and sphenoid bones, struck the petrous portion of the temporal, glanced and struck the vertex of the skull, it was again deflected and lodged in the motor area. The interesting point in this case is that, although the bullet was a so-called expanding bullet, it did not expand. This patient died. [J. H. G.]

5.—Jones contributes an article entitled **mental disorganization the result of alcohol**. He points out that of all poisons possibly alcohol is the most universal and the most widely diffused in nature, and it exists wherever destruction of organic matter by the various agents of fermentation takes place. He states that its use to some is beneficial, while, on the other hand, alcohol is the lethal weapon to others. He describes the general effects of alcoholism and the relation which alcoholism bears to insanity. The forms of insanity met with which result from alcoholism are: (1) Amnesic, (2) delusional and (3) chronic varieties which end in dementia. He finally discusses the pathology of chronic alcoholism and the treatment of alcoholic insanity. In conclusion, he remarks that the best working hypothesis for the prevention and cure of all forms of alcoholic disorders, whether mental or physical, must be based upon the practice of total abstinence. [F. J. K.]

6.—Phillips reports a case of **extra-uterine pregnancy associated with an intra-uterine gestation** operated upon by abdominal section, with recovery. He reports from the literature 28 cases of combined extra-uterine and intra-uterine pregnancy, 21 of which he has been able to confirm. Thirteen of the patients were advanced in pregnancy, and these showed a mortality by all methods of treatment of nearly 54%. He says that there is but little doubt that labor should, in such cases, be allowed to be completed, and that then the extra-uterine sac should be treated by parotomy. [W. A. N. D.]

7.—Neave reports an interesting case of **strangulated moral hernia of 52 hours' duration**, occurring in a woman,

90 years of age, on whom he performed a successful herniotomy. The operation was performed without any of the modern conveniences of aseptic surgery. [J. H. G.]

MEDICAL NEWS.

November 8, 1902. (Vol. 81, No. 19.)

1. Treatment of Congenital Dislocation of the Hip.
ROYAL WHITMAN.
2. The Etiology of Smallpox; with a Special Reference to its Microbiology and a Demonstration of its Microbe. WILLIAM SEAGROVE MAGILL.
3. A Modified Method of Auscultatory Percussion.
ALBERT ABRAMS.
4. Symptoms, Diagnosis and Complications of Gonorrhea.
ABRAHAM L. WOLBARST.
5. The Use of Salicylate of Sodium in the Treatment of Pneumonia. A. FRANK TAYLOR.

1.—Whitman's opinions of this condition are: (1) That the more complete fixation that may be obtained by carrying the plaster bandage below the knee after reduction, combined in certain instances with lessened outward rotation of the limb, is an improvement on the ordinary technique of the Lorenz operation in the treatment of young children; (2) that a longer period of fixation in an attitude approximating the normal is necessary to assure the remodeling of the acetabulum in old subjects; (3) that arthrotomy and osteotomy must be regarded as necessary supplements to conservative treatment; (4) that the original Hoffa-Lorenz operation offers a prospect of a better ultimate result than transposition, and that it must, therefore, be held in reserve as a final resort after failure of the less radical treatment. [T. M. T.]

2.—Magill says that in very young children an infection of variola most closely resembles that disease in animals, a pure septicemia, and any form of eruption is in them exceptional. This in itself would account for the rarity of notice of smallpox in children prematurely born. It has also been noticed that variolization of the mother either results in the abortion of a variolized fetus or in the birth of a child without symptoms of the disease, but producing a characteristic eruption a few days later. The author also states that the diffusibility of variola is vastly greater than that of any other eruptive fever. Its spread, nevertheless, is strictly limited to contact and can never be attributed to dissemination by the urine, etc. [T. M. T.]

3.—In Abram's **modified method of auscultatory percussion**, the clavicles, sternum, ribs, vertebræ are percussed directly, that is, without the interposition of the fingers as a pleximeter. The percussion blow is either light or strong according to whether the superficial or deep dulness is to be elicited. If, for example, the area of cardiac dulness is to be obtained, the clavicle or manubrium sterni is percussed directly, and the stethoscope is gradually carried toward the organ in all directions from the lung. The area of the heart is at once indicated by a dull tone supplanting a resonant one. A similar procedure is carried out in eliciting the upper liver border and the splenic area of dulness. Lung consolidation is also easy of elicitation by this method. [T. M. T.]

4.—Wolbarst gives the cardinal symptoms of the disease as follows: (1) A profuse discharge; (2) an angry looking meatus; (3) cloudy urine. Some of the complications mentioned in the acute conditions are: (1) Gonorrheal infection may also attack the mucous follicles of the prostate, sometimes resembling an inflammation of the gland structure; (2) epididymitis is not an uncommon complication; (3) inflammation of Cowper's glands is a rare complication; (4) peri-urethral abscess is not uncommon; (5) gonorrheal rheumatism; (6) gonorrheal ophthalmia.

[T. M. T.]

5.—Taylor gives in the **treatment of pneumonia** 15 grains of salicylate of sodium once in 4 hours and medium doses

of veratrum viride and aconite combined once in 4 hours until the temperature falls, then lessens the salicylate, all the time using a mixture of turpentine and lard on the chest with a covering of flannel and rubber-dam. His cases seldom need any opiates, since whatever pain exists yields to the salicylate. A little codeine or heroin combined with muriate of ammonia to relieve the cough is the only narcotic used. He has employed this treatment in 25 cases with marked success. [T. M. T.]

MEDICAL RECORD.

November 8, 1902.

1. The Diagnosis of Surgical Diseases of the Kidney, Accompanied by Pyuria. RAMON GUITERAS.
2. The Treatment of Acute Dysentery. J. DICKSON HUNTER.
3. A Table of the Differential Diagnosis of Coma with Report of a Case of Fracture of the Base of the Skull, Intracranial Hemorrhage and Compression of the Brain, Diagnosed by Symptoms Alone; Trephining; Recovery. SINCLAIR TOUSEY.
4. Educational Limitation of Venereal Diseases. FERD. C. VALENTINE.

1.—Guiteras discusses the diagnosis of surgical diseases of the kidneys accompanied by pyuria. He includes case reports illustrating pyelitis, unilateral ascending pyelonephritis, tumor of the kidney, calculous pyelonephritis, calculous pyonephrosis and pyonephrosis. His conclusions are as follows: (1) Given a case of pyuria, the seat and the nature of the lesion should be determined by all the methods at our command before an exploratory incision or an operative procedure is attempted. These methods include, in addition to the general and physical examination: (1) Examination of the urine, including cryoscopy and the phloridzin test; (2) cystoscopy; (3) ureteral catheterization; (4) segregation of the urine from each kidney by appliances introduced into the bladder and not into the ureters; (5) radioscopy. (2) The examination of the patient's urine in such cases should be considered as of the utmost importance and should be intrusted only to men thoroughly trained in this line of work, particularly in the microscopy of urinary sediments. (3) It is possible, by a careful study of the pus, blood, casts and particularly by a study of the epithelial elements of the urinary sediment, to determine the nature of the lesions and the seat thereof in the urinary tract. (4) A renal lesion of suppurative character being found, it becomes necessary to locate it in one or the other kidney, or to determine whether the opposite kidney is present and healthy. This may be done with the aid of cystoscopy, ureteral catheterization, combined with the phloridzin test, and followed by the examination of the urines from each kidney; with the aid of the Röntgen rays and, if need be, in case of doubt, of exploratory incision. (5) An omission of one or more links in the chain of methods of examination here enumerated may give rise to grave errors in diagnosis, and nephrectomy is never justified when we are not in the position to say that the opposite kidney is present and in good condition on the basis of the tests herein mentioned. [T. L. C.]

2.—Hunter, a practitioner in Peru, discusses the treatment of acute dysentery. The methods of Peruvian physicians are described. Hunter, himself, advises 45 grains of ipecac preceded by 15 or 20 drops of tincture of opium or a hypodermic injection of morphine. He also orders a sinapism to the pit of the stomach. He administers the ipecac in the morning, preferably fasting, and repeats it in 24 hours. He has found the following combination useful as a last resort in rebellious cases of acute dysentery: Ol. terebinth, 2 dr.; tr. opii., 1 dr.; syr. gum. acaciæ, 1½ oz.; mucilaginis acaciæ, 8½ oz. Tablespoonful every 2 or three hours. Lactic acid may also be of service. Careful dietetic measures must be followed. [T. L. C.]

4.—Valentine presents a paper on educational limitation of venereal diseases. He deals with the failure of all the present methods of regulating the social evil, and advances some general propositions designed to regulate prostitution, on the one hand, and properly to educate the community that it may be safeguarded. [T. L. C.]

NEW YORK MEDICAL JOURNAL.

November 8, 1902.

1. Pathology and Treatment of Epilepsy. WILLIAM H. THOMSON.
2. Suggestions Favoring a Standard Technique in Operative Surgery. EDWARD WALLACE LEE.
3. The Relationship Lues Bears to the Body Politic. S. P. COLLINGS.
4. Climatic and Electrical Peculiarities of Colorado Favoring Recovery in Pulmonary and Other Diseases. J. E. MacNEILL.
5. Diseases Preceding and Following the Abuse of Alcohol. T. D. CROTHERS.
6. Subcutaneous Injections of White of Egg. HOLMES C. JACKSON.

- 1.—Will be abstracted when concluded.
- 2.—Lee protests against a too strong tendency to accepting what is considered new, to developing new methods in surgery without due regard to those already known, but as yet undeveloped to their fullest benefits. Now that the art and science of surgery has been accomplished, he offers suggestions favoring the establishment of a standard technique in operative surgery. He describes in turn a definite method of reaching a diagnosis, a definite preparation for operation and the standard technique for actual operation. He lays especial stress upon attention to details. [M. O.]
- 3.—See Philadelphia Medical Journal, November 1, page 631.
- 4.—See Philadelphia Medical Journal, November 8, page 631.
- 5.—See Philadelphia Medical Journal, November 8, page 671.
- 6.—Egg albumen introduced subcutaneously is not assimilated and appears unchanged in the urine, as has been shown by numerous experiments. It is also impossible to obtain sterile, fluid egg albumen, suitable for subcutaneous injection. The statements made, therefore, by Dr. Southgate Leigh, in the *New York Medical Journal* of August 30, 1902, advocating the hypodermic injection of white of egg when it is impossible to administer nourishment per os or per rectum, are not correct. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

November 6, 1902. (Vol. CXLVII, No. 19.)

1. A Clinical Study of 135 Cases of Empyema, Based upon the Bacteriological Findings in the Exudate. CHARLES F. WITHINGTON.
2. Round Shoulders and Faulty Attitude: A Method of Observation and Record, with Conclusions as to Treatment. ROBERT W. LOVETT.
3. The Actinic Rays. Paper I. Their Use in Minor Surgery. EDWARD A. TRACY.
4. Segmented Ring for Intestinal Anastomosis. FRANCIS B. HARRINGTON.

1.—From Withington's table the following facts are shown. The first three groups, namely, streptococcus, lanceolatus and the combination, figure lower in the death-list than in the whole number of cases, that is, they show a relative advantage in the matter of recovery, while the next 4 groups, namely, the streptococcus with mixed infections and the aureus alone and admixed show a relative disadvantage, that is, contribute more heavily to the death-list than their numerical importance would warrant. Hence single organisms and the combination of streptococcus and lanceolatus are more favorable than the other mixed infections. [T. M. T.]

2.—Lovett concludes his article with the following statement: The study of the faulty attitude has been incomplete because the spine alone has been considered rather than the relation of the legs and pelvis to the spine and the relation of the whole body to the perpendicular; that a uniform method of record and measurement is desirable; that the method described gives a side ele-

vation of the whole attitude and the relation of the legs, thighs, pelvis, spine and head to each other and to the perpendicular; that the seat of faulty attitude is not as yet formulated; that gymnastic treatment should be general and local. [T. M. T.]

3.—Tracy reports a case in which the actinic rays seemed to cure these conditions: (1) Removal of large sebaceous cyst from the scalp without pain, actinic ray anesthesia; (2) subcutaneous abscess, size of a marble, opened under actinic ray anesthesia and treated with actinic ray antiseptics; (3) removal of skin slough an inch square from the palm of hand; actinic ray antiseptic treatment. [T. M. T.]

4.—Harrington advises in cases of intestinal anastomosis a ring of aluminum made in 4 sections, which are joined together firmly by a small bar of steel, with a shoulder and screw thread which serves as a handle. A ring with an outside diameter of little less than an inch is generally very useful for the large and the small intestine in adults. In children it would need to be smaller, not because the segments would not pass through, but because the diameter of the child's small intestine would be much less than an inch. The ring can be used for end-to-end anastomosis, for lateral anastomosis and for gastro-enterostomy. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 8, 1902.

1. Memorial to the late J. T. Eskridge, of Denver, Colorado, Chairman of the Section of Neurology of the American Medical Association. CHARLES K. MILLS and FRANK P. NORBURY.
2. Address on an Exhibit of Early (Prior to 1860) British and American Ophthalmic Literature. CASEY A. WOOD.
3. A Modified Form of Test-Card and Test-Letter. ELMER G. STARR.
4. Metastatic Sarcoma of the Choroid. MEYER WIENER.
5. One Thousand Personally Conducted Cases of Ethyl Chloride Narcosis. MARTIN W. WARE.
6. The Subarachnoid Injection of Cocaine for Operation on the Upper Part of the Body. A. W. MORTON.
7. Syphilis of the Liver. CHARLES G. STOKTON.
8. An Analysis of Seventy Cases of Gastroptosis. J. DUTTON STEELE and ALBERT P. FRANCINE.
9. Purse-String Suture in Gastrorrhaphy for Gunshot Wounds—An Experimental Contribution. N. SENN.
10. The Purposes of Ureter-Catheterism—Presentation of Ureter-Cystoscope for Male and Female. BRANSFORD LEWIS.

1. The Role of Syphilis as a Causative Factor in the Production of Pyorrhea Alveolaris.

A. H. OHMANN-DUMESNIL.

2.—Will be abstracted when article is concluded.
3.—Starr has devised a modified form of test-card and test-letter. In his test-card he employs yellow, being the most luminous color in the spectrum, and blue, its complementary, the color for the letter. He maintains that in practice it is best to have a yellow ground for each letter, about 3 times the diameter of the letter, in the small letters. All else may be black, and by this means we still further increase the brilliancy and contrast of the yellow and blue. He also refers to letters built up in 2 colors, as a compound letter produces a more sensitive test object than a solid letter. These letters are made up of 2 colors which are complementary, one-half of the letter being blue and the other half yellow, the colors are laid longitudinally on each line of the letter, and the background is gray.

[F. J. K.]

4.—Wiener reports a case of metastatic sarcoma of the choroid, which occurred in a man, 26 years of age. In this case both the eyes were affected. Examination of one eye showed sarcomatous patches, varying in size, color,

etc., the largest and most prominent one lying just below the optic nerve entrance and apparently including it. The optic nerve seemed to be swollen behind its entrance. Microscopically these patches were found to consist of small round cells, some spindle cells many bloodvessels and channels. Examination of the choroid revealed sarcomatous nodules in practically almost all of the viscera. [F. J. K.]

5.—See Philadelphia Medical Journal, June 21, 1902, page 1103.

6.—See Philadelphia Medical Journal, June 21, 1902, page 1103.

7.—See Philadelphia Medical Journal, June, 21, 1902, page 1098.

8.—See Philadelphia Medical Journal, June 21, 1902, page 1098.

9.—Senn strongly recommends the employment of the purse-string suture in repair of gunshot wounds of the stomach, stating that it makes an efficient closure and saves time. He also recommends that a posterior wound should be repaired through the anterior wound, which is sufficiently enlarged to permit of the closure. In case the lesser peritoneal cavity is infected by the extravasation of stomach contents it can be effectually irrigated through the wound in the posterior wall and the opening in the gastrocolic omentum. A catgut suture should be employed for closing these wounds. Senn reports 4 experiments upon dogs in which he has inflicted and closed stomach wounds. In each case the dog recovered, was killed later, and the wounds were found in excellent condition. It was found that in the course of 3 weeks the continuity of the mucosa at the seat of injury was completely restored.

[J. H. G.]

10.—Lewis rehearses the various conditions in which ureter-catheterism is employed for diagnostic and therapeutic purposes, and he describes an instrument which he has devised which permits of the catheterization of the ureter without the necessity of filling the bladder with fluid, and in which there is no danger of cauterizing the bladder wall. The author employs air for the distension of the bladder. [J. H. G.]

11.—Ohmann-Dumesnil contends that syphilis acts as a causative factor in about two-thirds of the cases of pyorrhea alveolaris. [F. J. K.]

AMERICAN MEDICINE.

November 8, 1902.

1. Further Contribution to the Subject of Vasomotor Ataxia. SOLOMON SOLIS COHEN.
2. The Asylum, the Hospital for the Insane and the Teaching of Psychiatry. STEWART PATON.
3. Kernig's Sign: Its Frequency of Occurrence, Causation and Clinical Significance.

ROBERT D. RUDOLF.

4. The Oxygen Bath for the Peritoneum and Its Possible Value—Second Report on the Cancer Case Relieved by an Exploratory Laparotomy.

EUGENE R. CORSON.

5. The Determination of the Acid Factors of the Gastric Fluid. CHARLES PLATT.
6. Congenital Hernia of the Liver Into the Umbilical Cord, with Report of a Case. J. W. BULLARD.

1.—See Philadelphia Medical Journal, May 17, 1902, page 875.

3.—Rudolf presents the following summary of his study of Kernig's sign: (1) Inability passively to extend the knee fully while the thigh is at right angles to the body, i. e., Kernig's sign was present in over 60% of all hospital patients examined. (2) Kernig's method is to place the patient in a sitting posture and then extend the knee. A more convenient way of applying the same test is that mentioned by Osler, in which the patient is kept recumbent and the thigh is placed at right angles to the body and then the knee is extended. (3) A procedure having advantages over both of these methods is first to extend the knee fully, then flex the thigh on the pelvis and measure the angle at the hip. Thus only one single angle requires

to be gauged instead of 2, and hyperextension of the hip (showing muscular hypotonus) can be measured. (4) There is a great proneness in meningitis to increased muscular tonus, which is most apparent in the muscles of the neck and in the hamstrings. This hypertonus, occurring in meningitis, is probably due to cerebellar irritation, and conversely cerebellar irritation is probably the explanation of Kernig's sign in meningitis. (5) Inability to extend the knee fully with the hip at right angles to the body, or to flex the hip to a right angle while the knee is extended, occurs in many conditions besides meningitis. Among such conditions are cerebellar diseases and diseases of the upper neurons of the motor tracts, acute eye troubles, disuse of the lower limbs for some days, as in recumbency, local conditions in these limbs, as sciatica, arthritis and contractures, old age, etc. (6) When Kernig's sign is well developed in a recently healthy individual who has fever and none of the conditions mentioned, then it is a valuable sign of meningitis, and this is probably, at least partially, in the cerebellar region. (7) For the purposes of greater clinical accuracy it is urged that writers upon this condition express the angle at the knee or hip in degrees, rather than merely mentioning the presence or absence of the sign. [T. L. C.]

5.—Platt states that, with the present limitation of our knowledge, the ordinary clinical analysis of the gastric contents may well be limited to the following acid tests: (1) *Qualitatively*, for free acids in general with congo-red paper: for free hydrochloric acid with Günzburg's or Boas' reagent; for lactic acid and other organic acids by the modified Uffelmann's test, using the ethereal extract of the filtered gastric fluid. (2) *Quantitatively*, for the total acidity with phenolphthalein, and for the free hydrochloric acid using either titration method with tropaeolin or the more exact though more tedious method by successive Günzburg's reactions. The organic acids may be estimated in the same solution by continuing the titration with congo-red paper as the indicator. All of these quantitative tests may, in case of need, be made with one sample of the gastric fluid, determining the various factors in the manner described, first, the free hydrochloric acid, then the organic acids and, finally, the total acidity. It would be well to include in this list with the other qualitative tests one for the acid salts and this may be conveniently done by Knapp's method. [T. L. C.]

6.—Bullard gives a résumé of congenital hernia of the liver into the umbilical cord and reports a case of his own occurring in an infant, 12 days old. Operation was performed, and the child died 20 hours later. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

August 28, 1902.

1. Dangers of Tavel's Salt-Soda Solution When Used Subcutaneously. BAISCH.
2. Experimental Studies of Eclampsia. W. WEICHARDT.
3. Typhoid Fever Without Intestinal Lesions. A. BLUMENTHAL.
4. Observations Concerning Barlow's Disease. H. NEUMANN.
5. Foreign Body in the Heart Wall and Caries of the Spinal Column in a Thirteen-Year-Old Boy. B. FISCHER.
6. On the Origin of the Breath-Sounds. (Conclusion). J. MAREK.
7. The Number of Leukocytes in the Blood of Pregnant, Child-Bearing and Puerperal Women. An Addition. W. ZANGEMEISTER and M. WAGNER.

1.—To be concluded.

2.—Weichardt contributes some studies of eclampsia, which, he states, he has been unable to follow out to the end, but which in themselves are very interesting. He directs attention to previous work, particularly that of Schmorl, who considered that the eclampsia toxin is probably of syncytial origin. This led Weichardt to study the question from the standpoint of the recent work on the cytotoxins. He used rabbits in his studies, and injected them first with sterile emulsions of human placental tissue. The animals furnished a serum that was specifically cytotoxic to human placental cells. It also had a hemolytic action. Serum that was merely hemolytic, however, caused no

eclampsia-like appearances; it merely produced general thrombosis. When the syncytiolytic serum was added to placental tissue until the tissue was well dissolved, and this mixture was injected into the subcutaneous tissue, the animals at first showed no reaction; but within 2 or 3 days they exhibited clonic and tonic convulsions, which led to death. The liver showed the changes which are customarily seen in eclampsia—hemorrhagic necroses and thrombosis of numerous vessels. The kidneys showed scattered thrombi, without inflammatory changes. These positive results were obtained in 3 animals; in 6 the results were negative. The negative results are attributed to the impossibility of regulating the dose. Very broad conclusions cannot be drawn from these results, because they were obtained by the injection of the placental tissue of another species. Injection of rabbit-placenta into rabbits produced no results, but further study is necessary and would probably be productive. The author believes that an antitoxin for eclampsia can readily be produced. [D. L. E.]

3.—The case was that of a girl of 23, who had the usual symptoms of typhoid fever, and who died with signs of increasing hypostasis of the lungs. The post mortem examination showed an entire absence of any intestinal lesions, but enlargement of the mesenteric glands and the spleen; a microscopical examination of the spleen showed typhoid bacilli. It is notable that the patient died on the tenth day of the disease. [D. L. E.]

4.—To be concluded.

5.—The case was that of a boy of 13, who developed a swelling in the region of the hip following an injury. This afterward broke down and a fistula formed. There was a peri-articular abscess, which was afterward found to extend upward toward the spinal column; and, in spite of repeated operation, the boy exhibited persistent sepsis, and ultimately died with signs of very great cardiac weakness, the pulse being extremely irregular, and abnormally frequent as compared with the body-temperature. The point of chief interest was that there were widespread pericardial adhesions, and that in the posterior part of the right ventricle there was a portion of a thick needle 3 cm. in length. He believes that the marked cardiac signs were due to the presence of this foreign body, as foreign bodies in the heart wall usually cause decided excitability of the heart. He thinks it probable that the needle was swallowed, that it perforated the esophagus and thus lodged in the heart. [D. L. E.]

6.—Bronchial breathing is dependent upon the presence of the larynx and the laryngeal sound. Various experiments that seem to demonstrate this are referred to. If the essential lung-tissue has become empty of air, the walls of the small bronchi become more rigid; and, as a result, the overtones accompanying the groundtones are less weakened in their transmission and, consequently, appear more prominent. As to the development of rales, the author states that, if fluid be introduced into a bulb connected with glass tubes, air be sucked in, and then the fluid be set in motion, the fluid will show a wavy motion and advance into the tubes; and, as the wave closes the tubes, the fluid will suddenly spurt about. This will produce a sound similar to a rale. The character of the rale is dependent upon the density and adhesiveness of the fluid. [D. L. E.]

7.—The authors merely recognize the work of Hofbauer, which they had overlooked in their previous article.

[D. L. E.]

September 4, 1902.

1. Preliminary Communication Concerning the Study of Cancer in the First Medical Clinic in Berlin. E. von LEYDEN and F. BLUMENTHAL.
2. The Diagnostic and Therapeutic Results From the Modern Direct Endoscopic Methods of Investigation in Cases of Foreign Body in the Air Passages and Esophagus. G. KILLIAN.
3. On Neurasthenic Neuralgias. E. JENDRASSIK.
4. A New Method for the Demonstration of Potassium Iodide in the Blood. KARFUNKEL.
5. On the Danger of Tavel's Sodium Chloride-Soda Solution When Used Subcutaneously. (Conclusion). BAISCH.
6. Observations Concerning Barlow's Disease. (Conclusion). H. NEUMANN.

1.—The authors state that, owing to the publication of

Jensen's work, they have been led to report their own; although their results are, as yet, such that the report is really somewhat premature. They have been **unable to infect animals with human cancer**; they have had no opportunity to infect rats or mice with cancer from the same species; they have, however, **been able to infect dogs with cancer from other dogs**. By carrying out repeated subcutaneous injections of cancer-tissue from a dog into rabbits, they **obtained a serum which caused softening and liquefaction of a cancer in a dog**. They have also used the juice of a cancer from one dog to inject into another suffering from cancer. In the latter animal the tumor diminished to an extremely small remnant, which was extirpated and showed carcinomatous tissue. The authors have **carried out similar methods of treatment on human subjects** and have found them absolutely harmless. In 2 cases, while the tumor itself seemed uninfluenced, there was a **striking absence of metastasis at post mortem, and some glandular enlargement, previously present, had disappeared**. These cases are mentioned at length, and especial emphasis is laid upon the absence of metastasis. In the third case, a woman, with advanced carcinoma of the uterus, was admitted to the hospital in bedfast condition. She was injected with the serum from a goat that had been treated with tumor extract, and was later given tumor extract itself. The general condition markedly improved and the tumor appeared to break down in parts. Pain decreased greatly, and the woman was finally able to be out of bed a part of the time. **She has lived 10 months; though at first she was daily expected to die**. She is now decidedly improved, but a cure cannot be claimed. This method of treatment is considered by the authors a rational one and one that should be further used. [D. L. E.]

2.—A general discussion of the use of the bronchoscope, and of the valuable results that may frequently be obtained therewith. [D. L. E.]

3.—Jendrassik considers that a **pure neuralgia should be extremely rarely diagnosticated in any case**, except when the disease is situated in the territory of the trigeminus. In this paper he refers particularly to what he terms pseudoneuralgia—a condition that has been little discussed, excepting by Blocq, who has given a clear description of it. A series of case-histories are given, and a general discussion of the condition will be given in the next paper. [D. L. E.]

4.—The method is crystallographic and cannot be briefly abstracted. Karfunkel states that he has **always been able to find iodine in the blood by this method**, when it was present in the secretions; and it appears within a few minutes after giving iodine, if absorption is normal. [D. L. E.]

5.—Baisch has found that, when administered subcutaneously to animals, **sodium chloride-soda solution produces local necrosis followed by gangrene**. The intraperitoneal injections do not have this effect, and it has long been known that intravenous infusion is not followed by bad results. The author **believes that the injections cannot safely be used subcutaneously** and considers that there is no justification for Tavel's statement that this solution will replace dry antiseptics in operation. Soaking dressings in this solution would tend rather to cause breaking down of the wound than its normal healing, and the best solution for keeping the tissues moist during operation undoubtedly is physiological salt solution. [D. L. E.]

6.—Neumann directs attention to the fact that a precipitate occurs in heated milk. He thought that this precipitate might contain iron in considerable amounts, and that **abstraction of the iron or alteration of its chemical form might have something to do with the production of scurvy**; but no appreciable quantities of iron could be found in the precipitate. He does not believe that the condition is directly due to anemia or that anemia is always associated with it. He directs attention to the fact that the heating of the milk is, at times, known to produce substances like hydrogen sulphide, which are not harmless; and he **considers it probable that heating causes the development of toxic substances in milk**—in this way he distinctly differs from the theory of bacterial intoxication or of metabolic disturbance from the use of improper food. In speaking of hemorrhage from the kidneys in these

cases, the author refers to 4 such instances that he has observed. He notes that in 3 cases, after the use of proper food, the condition rapidly disappeared; while in the fourth the symptoms grew worse, and the case ended fatally, he believes, because pasteurized milk was continuously given. He considers it **possible that a chronic nephritis may result from these hemorrhages from the kidneys**. He mentions the cases of 2 young brothers who had a nephritis without any definite cause, except that they were for some time given milk that had been heated to a high point. Neumann insists upon the **importance of a so-called abortive form of scurvy**, which, so far as hemorrhage is concerned, may make itself manifest purely through a moderate degree of renal hemorrhage. Together with this one may find tenderness of the legs, and that the child keeps the legs drawn up upon the abdomen. Scurvy seems to be common in Berlin. The treatment is the use of raw or carefully pasteurized milk, and the administration of vegetables. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

September 2, 1902. No. 35.

1. The Nature of Diabetes. O. HESS.
2. The Hemolytic Action of Normal Human Serum.
R. TROMMSDORFF.
3. Per Nasal Tubage. F. KUHN.
4. The Knowledge of Metastasis to the Bones in Tumors of the Thyroids. R. WAGNER.
5. Contribution to the Treatment of Melena Neonatorum with Gelatine. H. FUHRMANN.
6. A New Apparatus for Exercise. O. VULPIUS.
7. A Simple Bacterial Filter for the Filtration of Small Quantities of Liquid. W. SILBERSCHMIDT.
8. A New Means to Prevent Decubitus. STRAETER.
9. Contribution to the Bloodless Treatment of Phimosis.
ORLIPSKI.
10. The Physician and Accident Law. W. MUELLER.
11. Partial and Altered Ability to Work.
L. HOEFLMAYR.
12. Humor in Accident Insurance. E. FISCHER.

1.—Hess gives an admirable summary of the present theories regarding the **nature of diabetes**, paying particular attention to the work of Minkowski. He reports the results of 3 experiments made by himself which consisted essentially in removing the pancreas from certain dogs, then, when diabetes was present, withdrawing some of their blood, allowing the serum to separate and injecting it intravenously into other dogs. These were tested in order to determine whether they became diabetic. They were then bled in their turn, the serum separated and injected into the first dogs in order to test whether any improvement occurred. In several cases the injection of the serum of the dog in whom immunity had been attempted produced a reduction of the quantity of sugar upon the day of injection, but this was transient, and the nervous symptoms and fatty degeneration of the heart all progressed rapidly. The amount of nitrogen excreted in the urine appeared to be increased, and therefore there was a marked diminution in the ratio of the nitrogen to the sugar. [J. S.]

2.—Hahn and Trommsdorff have performed a series of experiments with the bloodserum obtained from human placentas in order to determine its **hemolytic qualities**. They found that it rapidly dissolved rabbit and guinea-pig corpuscles, but that the solution was delayed if inactive sheep serum was added to the guinea-pig blood. Curiously enough, if the human serum possessed slight hemolytic qualities, the addition of the sheep serum increased the rapidity of the reaction. The same results were obtained upon the addition of inactive horse serum or inactive human serum. If, however, serum from the same blood was rendered inactive and added, it increased the rapidity of the solution. The essential element in this case appears to be human intermediary bodies. However, if they are greatly deficient in the mixture, other intermediary bodies, for instance the sheep serum, may become united with the bloodcorpuscles. [J. S.]

3.—Kuhn believes that instead of the **per oral intubation** which he previously recommended for artificial respiration, chloroform narcosis, etc., the **per nasal method** is prefer-

able. The respiration is more natural; the tube is in a more favorable position; it leaves the mouth entirely free; it is much more comfortable for the patient; it makes it possible to operate upon the mouth, palate, etc., without any obstruction; it appears to prevent the occurrence of retching and vomiting; if necessary to retain the tube for some time, the patient is able to drink or eat, and the instrument is somewhat simpler. For chloroform narcosis the advantages are the absence of the reflexes; the certainty that the respiratory passages are clear; the distance that the chloroform mask can be held from the face of the patient, and the susceptibility of the narcosis to change in intensity, and its persistence throughout the operation. [J. S.]

4.—Wagner reports the case of a woman, 48 years of age, who from girlhood had had a goiter. Shortly before coming under observation she noticed a slight increase in difficulty in swallowing, and previous to this time had had severe pain in the left hip and thigh. This was so severe that she became almost maniacal. Upon examination the left inguinal region was found slightly infiltrated and the left leg was adducted and rotated inward. It was freely movable at the hip, but all extension was painful. A diagnosis of malignant tumor of the thigh was made. Gradually the patient grew worse, the goiter increased in size, and death occurred. At the autopsy a tumor of the thyroid gland was found and also one in the left thigh. Microscopically these tumors were found to be spindle-cell sarcomata. It appears that the primary tumor was in the thyroid and metastasis then took place to the thigh, because these tumors usually give such metastasis, it was diffuse in the thyroid, circumscribed in the bone, and there were metastatic nodules in the medullary cavity beyond the tumor-mass. He believes that metastasis to the bone, as a result of thyroid tumors, should never be touched. [J. S.]

5.—Fuhrmann reports 3 cases of *melenia neonatorum*. The first, a boy, the day after birth had copious vomiting of blood. Five and a half hours afterward, 20 cc. of a 2% solution of gelatine were injected, the child being then in a state of profound collapse. The hemorrhage continued, and the child died in a few hours in spite of a second injection. The second patient commenced to bleed on the fourth day. Twenty cc. of gelatine were injected into the thigh. There was immediate improvement, and the patient recovered. The third patient commenced to bleed on the third day and went into a state of collapse. Fifty cc. of gelatine were injected beneath the shoulderblades, the bleeding stopped at once and the child recovered. The first patient was in a desperate condition when the treatment was employed; the second was milder, and would probably have recovered anyway, but in the third case the results appear to indicate considerable value in the gelatine treatment. [J. S.]

6.—Vulpus describes an ingenious apparatus by which patients suffering from various forms of injuries of the legs can practice walking. It consists essentially of 2 parallel bars to which crutches are attached, the bottom having a sort of tread-mill arrangement. This can be elevated at various angles, and along it the patient walks. [J. S.]

7.—Silberschmidt describes an interesting apparatus for filtering small quantities of liquid culture media. It consists of a small porcelain filter fastened over the end of a test-tube by means of a heavy perforated rubber cap. This tube has a smaller tube projecting from the sides by means of which it can be attached to a vacuum pump. The material is placed in the cavity of the porcelain and allowed to run through. [J. S.]

8.—Sträter has constructed a felt shield with an adhesive matter on one surface which can be placed over a bed-sore. The part overlying the sore can be cut out, and thus it may be protected. He mentions several cases in which the results were excellent. [J. S.]

9.—Orlowski prefers dilatation to incision for the treatment of phimosis. [J. S.]

10.—Müller discusses the enormous increase of accidents which come under the insurance law in Germany, and urges the physician, in the preparation of certificates regarding these accidents, to be exceedingly conscientious and unprejudiced. [J. S.]

11.—Höflmayr believes that patients suffering from partial inability to work, particularly those who have some subjective condition, and in whom all the objective symptoms have disappeared, should be partially supported by the Invalid Insurance until they recover. In one instance in which this method was employed, it was found to work very well. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

September 29, 1902. (39 Jahrgang, No. 39.)

1. A Case of Spinal Tumor Treated by Operation, with Recovery. HEINRICH OPPENHEIM.
2. The Histological Changes in Mercurial Dermatitis, with Remarks on the Local and Blood Eosinophilia Observed with it. ERICH HOFFMANN.
3. The Effect of Alcohol on the Assimilation of Human Beings. ARTHUR CLOPATT.
4. Spastic Constipation. von SCHOLERN.
5. The Mode of Action of Cobra Poison. PRESTON KYES.

1.—Oppenheim reports the case of a girl of 18, neurotic, with pain in the right side of the abdomen, spastic paraplegia in the lower extremities, foot clonus, Babinski's sign and hypesthesia to touch and pain in the left leg. The right abdominal reflex was absent. He made the diagnosis of tumor of the vertebral canal, with compression of the spine, at the eighth dorsal vertebra. Tuberculin injections, undertaken because of scoliosis suggesting possible caries, proved negative. The condition had existed 6 months. Operation, performed by Sonnenburg, disclosed a fibroma 3 cm. long, exactly at the point localized. Complete recovery gradually followed, even the scoliosis disappearing. [M. O.]

2.—Will be abstracted when concluded.

3.—Clopatt reports in detail experiments to show the effect of alcohol upon the assimilation of human beings. The influence of alcohol on nitrogen assimilation caused an increased albumin destruction for 5 days; then for the next 6 days the albumin was stored up. He concludes that alcohol not only spares nitrogenous food-stuffs, but, after the body has become accustomed to it, also spares albumin. Besides, alcohol had no visible effect upon the absorption of food in the intestines. [M. O.]

4.—Spastic constipation is an intestinal neurosis, a symptom of neurasthenia. Among the symptoms of the condition are inability to defecate properly, constipation with spasm, pain and the contraction of part of the intestine. The feces are normal in character. The thickened, contracted portion of the intestine can often be palpated. Several case-histories follow in detail. The patients had no meteorism at all, and no symptoms during the interval between attacks. Less feces were passed than at other times. In the treatment, von Scholern advises rest in bed, with nonirritating, soft, nourishing food, much liquid, warm applications to the abdomen. The drugs employed are the bromides, chloral and belladonna. Enemata are advised in the forenoon, but purgatives are contra-indicated. [M. O.]

5.—Kyes found that, in the action of cobra poison, 2 kinds of bloodcorpuscles were noted, those which were destroyed by the poison itself, and those which were only destroyed when other substances, complements, etc., had been added. His experiments confirm those of Flexner and Noguchi upon the nature of the amboceptor of cobra poison. The blood, however, also contains endocomplements. Injury only occurs if a certain organic relation between the complement and the protoplasm is restored by means of the amboceptor. Other experiments show 2 wholly different modes of action, one due to the complements, the other to substances which only appear with heat. Finally Kyes shows that a chemically definite crystalline substance, lecithin may, in a certain sense, play an important part in the action of the complements. His experiments are fully described. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

September 18, 1902. (XV. Jahrgang, No. 38.)

1. Examination of the Water from the New Springer, Mühlbrunn, and Franz Josef Springs, Carlsbad. E. LUDWIG, T. PANZER, and R. von ZEYNEK.
2. Tamponing the Puerperal Uterus. R. CHROBAK.
3. Cocaine. ERNST FUCHS.
4. Sclerosis of the Brain and Brain Tumor.

GUSSENBAUER.

5. The Symptomatology of the Gastro-intestinal Disturbances of Arteriosclerosis. EDMUND NEUSSER.
6. The Diagnosis of Concealed Thoracic Aneurysm of the Aorta. L. von SCHROETTER.
7. Further Histological Investigations of the Pancreas in Diabetes Mellitus.

A. WEICHSELBAUM and E. STANGL.

1.—Ludwig, Panzer and von Zeynek describe with full detail the composition and therapeutic value of water from the new Springer, Mühlbrunn, and Franz Josef springs in Carlsbad. The temperature of the water varies from 56° to 72° C. The amount of potassium in the water increases as the temperature rises. Yet all 3 waters are so much alike as to be interchangeable. They all contain a good deal of carbonic acid gas. Analytical tables accompany the article. [M. O.]

2.—The most dangerous complication of labor is **post-partum hemorrhage**. If the hemorrhage is purely cervical, the cause should be found and any tear sutured. If this is impossible, the uterus must be tamponed. Chrobak has done this in 27 cases of pure atony of the uterus. It proved useless in 3 cases, death following from hemorrhage. Infection occurred in 12 cases, severe only in 2, yet all but those 3 patients recovered. In sudden hemorrhage, as from hemophilia, **tamponing the uterus** immediately is indicated. The difficulties of the procedure are shown by the case-history of one patient who died in spite of tamponing. The autopsy report follows. [M. O.]

3.—Fuchs never gives cocaine for overcoming pain in eye work, because its effect is only temporary. The patients drop it in the eye too often, and corneal injuries result. For operation or with conjunctival injection he uses cocaine, with suprarenal extract, and morphine hypodermically. Schleich's infiltration anesthesia is not recommended for operations on the eyelid. Cocaine is useful for photophobia and mydriasis. In place of cocaine, for controlling the pain, he orders warm or cold compresses, leeches or dionin. [M. O.]

4.—Gussenbauer reports a case of sclerosis of the brain noted 7 years after the patient had been trephined for the removal of a brain tumor. Epileptic attacks had increased after operation, followed by paralysis of the right facial nerve, right upper and lower extremities, loss of intellect, idiocy, coma and death. The autopsy showed multiple sclerosis of the brain and cord, chronic internal hydrocephalus and the scar from the operation. The case was interesting because of the observation of the symptoms before and after operation, and the post mortem findings. [M. O.]

5.—Neusser reports a case of arteriosclerosis of the thoracic aorta with aortic insufficiency, in a man of 47, who had had articular rheumatism. He suffered from attacks of gastralgia, ptalism and typical stenocardia, without radiation to the left shoulder and arm. Gastro-intestinal symptoms were marked. He improved upon erythrol tetranitrate and iodides. After an attack complicated with jaundice, he died. The autopsy showed aortic insufficiency and sclerosis of the coronary arteries. The symptomatology and literature are discussed. [M. O.]

6.—von Schrötter reports a case of concealed thoracic aneurysm in a man of 47, who had bilateral abscess of the nasal septum. Examination showed thickened, tortuous carotids and some sclerosis of the arteries of the extremities. Röntgen photographs, however, showed great enlargement of the base of the heart, evidently due to an aneurysm which gave no other signs. [M. O.]

7.—Weichselbaum and Stangl report 17 more cases of diabetes mellitus which they have investigated, after reviewing the literature on the subject published since their article last year. They believe that, while it has not been proved that the islands of Langerhans play the main part in assimilating carbohydrates, or that pancreatic diabetes is due to disease of these islands, yet investigations made

up to this time tend to strengthen this theory. For changes affecting the function of the pancreas have been found in these islands of Langerhans in all the cases examined, and in no cases without diabetes; no other parts of the pancreatic tissue were at all affected, and other investigators have noted similar changes. The subject is treated with full histological detail. [M. O.]

DEUTSCHE ZEITSCHRIFT FÜR CHIRURGIE.

July, 1902. (Vol. 64, No. 4.)

1. Primary Sarcoma of the Frontal Sinus. ALI KROGIUS.
2. Congenital Cystic Hygroma of the Neck. V. SCHMIEDEN.
3. Traumatic Ossifying Myositis with the Production of Lymphatic Cysts. OTTO WOLTER.
4. Investigations on the So-called Parasites in Cancer Cells. HANS NOESSKE.

1.—Primary neoplasms of the frontal sinus are very rare. After reviewing the meager literature, Krogus reports a case of **primary sarcoma of the frontal sinus** in a man of 29. The tumor had appeared 6 years before, and there had been no pain, in spite of its size. The patient recovered after operative extirpation of the tumor. Microscopical examination showed that the tumor was a spindle-cell sarcoma of exceptionally slow growth. The only treatment is radical operation. [M. O.]

2.—Congenital cystic hygroma of the neck occurs but rarely. Schmieden reports a case in a girl of 13, on the left side of whose neck a small cyst was noted at birth. Though this had been removed by operation, it recurred, gradually increasing in size. This large cystic tumor was removed with successful recovery. Cystic hygromata may be true blood cysts, the so-called deep atheroma cysts of the neck, or cystic hemolymphangioma of the neck. The first are varicose, the second dermoid cysts, while the third are unilateral, always. Schmieden considers this case, from its morphology, to be a cystic hemolymphangioma. [M. O.]

3.—Wolter reports 2 cases of **traumatic ossifying myositis**, in men of 44 and 25 years of age, with recovery following operation. In both cases lymphatic cysts were found between bony masses in the affected muscular tissue. A full review of the literature follows. The diagnosis is only confirmed by operation. Wolter believes that periosteum and muscles are simultaneously affected. Clinically the disease appears to be a tumor; pathologically it is an inflammation. The treatment is early removal of the tumor. [M. O.]

4.—Nösske, who has been testing the investigations of Plimmer and Gaylord, reviews the entire literature of the **so-called parasites found in cancer cells**. The details of his experimental technique are given. He found the Plimmer bodies constant only in mammary cancer, and noted the fact that they were only observed in glandular, never in skin cancer. They were also noted in the growing glandular cells of benign tumors and inflammatory processes. The bodies described by von Leyden and Feinberg recently are certainly the same Plimmer bodies. No one has proved these cell contents to be parasites, nor, in the general search for a parasitic cause of cancer, have the various forms of degeneration found in the cell protoplasm and nucleus yet been clearly explained. [M. O.]

ARCHIV FÜR KLINISCHE CHIRURGIE.

1902. (Volume 68, No. 1.)

1. The Permanent Results of 800 Radical Operations by the Bassini Method. S. GOLDNER.
2. Successful Operative Removal of a Tumor of the Left Occipital Lobe. THIEM.
3. Hemorrhagic Cysts of the Skull and their Treatment. FELIX FRANKE.
4. Diffuse Adhesive Peritonitis after Appendicitis. KAREWSKI.
5. Results from the Operative Treatment of Carcinomatous Tumors of the Colon. J. HOCHENEGG.

6. A Contribution to the Knowledge of the Joint Affections of Hemophilia. K. MERMINGAS.
7. Ileus in Intestinal Cancer, and Localized Meteorism with Deep-seated Occlusion of the Colon. WILLY ANSCHUETZ.
8. The Early Operative Treatment of Uncomplicated Intra-articular and Para-articular Fractures. LESSING.
9. Myoma of the Rectum. E. LEXER.
10. An Unusual Case of Cephalocele, and Postoperative Hydrocephalus. G. MUSCATELLO.
11. The Diagnosis of Spina Bifida, and Postoperative Hydrocephalus. G. MUSCATELLO.
12. A Method for Performing Rhinoplasty. EUGENE HOLLAENDER.

1.—Goldner reports 800 Bassini operations for the radical cure of inguinal hernia, performed during 5 years, 695 of them on men. For permanent recovery at least 2 years must have passed since operation and the patient still be able to work. A new inguinal hernia through the outer abdominal ring may cause recurrence; hernia may recur through the muscular scar; or crural hernia may appear. Out of 466 cases which were followed over 2 years after operation, recurrence was noted in 35. Omitting crural hernia, recurrence occurred in only 23 cases. Operation was performed for recurrence in 14 cases, most of them having developed in the lower angle of the wound. The Bassini operation is especially recommended in childhood. Death occurred in but 3 patients. In 18 cases the hernia was incarcerated. Technique, details and case-histories follow. [M. O.]

2.—See Philadelphia Medical Journal, May 24, 1902, page 925.

3.—See Philadelphia Medical Journal, May 24, 1902, page 925.

4.—Diffuse adhesive peritonitis may develop after insidious appendicitis, perforation, apparent recovery, abscess or operation. In 3 cases the entire peritoneal cavity was obliterated, ending fatally; in 4 cases circumscribed perityphlitis occurred, with but one death; in 2 cases chronic peritonitis followed perforation, with death; in 4 cases chronic diffuse peritonitis occurred without any recognized cause, fatal, however, in only one. The cause of death was not peritoneal sepsis, but late disturbances of intestinal activity, due to the adhesions. To prevent the occurrence of diffuse adhesive peritonitis the appendix should be removed in all severe cases. [M. O.]

5.—See editorial, Philadelphia Medical Journal, September 6, 1902, page 305.

6.—Mermingas reports 3 cases of hemophilia with affections of the joints, occurring in young men and without any known cause, affecting the knee first, recurring, yet causing little disturbance. Eventually the affected joint thickens, with or without pain. Subluxation, genu varus or valgus may result. Hemorrhages occur into the joint, without cause. All patients with hemophilia are not affected, however. The diagnosis may be difficult; the treatment consists in rest, with extension if necessary. [M. O.]

7.—Ileus may occur after long-standing intestinal symptoms, or suddenly, without any previous symptoms. Out of 26 cases of ileus, 5 were complicated by intestinal cancer. These 2 groups of cases are described. Two other case-histories follow, showing localized meteorism, from dilatation of the cecum with deep-situated occlusion of the colon. This is due to increased internal pressure, the ileocecal valve not being patulous. The local dilatation depends upon the width of the part of the colon affected. Much detailed discussion is given. [M. O.]

8.—Lessing, who reports several cases of fracture, gives the details of the early operative treatment for uncomplicated fractures in and near joints. In some cases sutures are indicated; in others operation may be needed immediately to place the fragments in good position before applying plaster, splints or extension. [M. O.]

9.—See Philadelphia Medical Journal, May 24, 1902, page 925.

10.—Muscatello reports an unusual case of cephalocele, in an atrophic infant, aged 8 days, the most voluminous cephalocele ever successfully operated upon. After operation, though the wound healed by first intention, hydrocephalus developed, causing death in 6 months. The autopsy confirmed the diagnosis of encephalocystomeningocele. The hydrocephalus was inflammatory, probably due to syphilis. [M. O.]

11.—Muscatello reports several new cases of myelomeningocele, meningocele and myelocystocele, and discusses the pathogenesis of postoperative hydrocephalus. The differential diagnosis between these varieties of spina bifida is often impossible. When ulceration occurs, operation is often unsuccessful, since hydrocephalus or acute meningitis frequently follows. The probable cause of these conditions is pyogenic infection. [M. O.]

12.—See Philadelphia Medical Journal, May 24, 1902, page 925.

REVUE DE CHIRURGIE.

July, 1902. (22me. Année. No. 7.)

1. Actinomycosis of the Lower Jaw. ANTONIN PONCET.
2. Abdominal Contusion With Rupture of the Intestine. L. CAHIER.
3. Operative Reposition of the Head of the Femur in Irreducible Luxation of the Hip. G. GAYET.
4. Internal Cholerrhagia. F. DEVE.
5. Coxa Vara in Adolescence. ROBERT PICQUE.
6. A Case of Cerebral Hemorrhage During Chloroform Anesthesia. BOUREAU.

1.—Poncet reports in detail a case of actinomycosis of the right side of the face, forming a tumor of the ascending ramus of the lower jaw, in a peasant woman of 27. Recovery followed resection. The subject is fully reviewed. [M. O.]

2.—Cahier, who reports 6 cases of abdominal contusions following being kicked by a horse, has collected 69 such cases from the literature. In one case rupture of the intestine occurred, but recovery followed laparotomy. The others recovered without operation. The indications for operation are deep pain and extreme contraction of the abdominal muscles. When the kidney is affected, polynuclear hyperleukocytosis with eosinophilia results. His treatment is given in full. [M. O.]

3.—Will be abstracted when concluded.

4.—Internal cholerrhagia generally occurs with rupture of a hydatid cyst of the liver, but may follow when bile reaches the peritoneal cavity directly or indirectly, through the circulation. Dévé found 23 cases in the literature, in 15 of which were ruptured hydatid cysts. There was neither fever nor jaundice, and onset was sudden, with symptoms of rupture of the cyst. The fluid was removed by tapping as often as 6 times. In some cases the condition follows puncture for ascites. Dévé advises incision, evacuation, and cleansing of the peritoneum, closing the ruptured cyst and leaving drainage. [M. O.]

5.—Picqué, who has recently studied a case of coxa vara in adolescence, states that this deformity is due to a diminution in the angle of the neck of the femur. It may be congenital or acquired, appearing insidiously during adolescence, in a femur slightly longer than its fellow. It develops in 2 stages, one of painful osteoperiostitis with contraction and limitation of motion; the second, purely of disordered function, the stationary stage. The treatment consists in rest in bed with extension. Later subcondylod osteotomy may be indicated, to correct the deformity. [M. O.]

6.—Boureau reports a case of cerebral hemorrhage in a woman of 52, with tumors of the parotid and frontal regions, who received 28 cc. of chloroform, the anesthesia lasting one hour and 5 minutes. Coma followed at once, lasting 8 hours; then she gradually came to, showing left-sided complete paralysis of the arm, less complete of the leg and right side of the face, with complete insensibility in the left arm, less marked on the entire left side of the

body. She slowly recovered. The cause of her condition was probably cerebral hemorrhage, due to cerebral congestion from the chloroform. [M. O.]

ANNALS OF SURGERY.

September, 1902.

1. On the Avoidance of Shock in Major Amputations by Cocainization of Large Nerve Trunks Preliminary to their Division. With Observations on Bloodpressure Changes in Surgical Cases. HARVEY CUSHING.
2. Subparietal Rupture of the Kidney. T. A. DAVIS.
3. The Results of Wounds of the Large Joints made by Modern Military Projectiles. C. B. NANCREDE.
4. Removal of the Superior Cervical Ganglion for the Relief of Glaucoma, with Report of a Case.
C. W. CUTLER and C. L. GIBSON.
5. Note on Synchronous Ligation of Both Internal Jugular Veins. J. F. BALDWIN.
6. Operative Treatment of Exophthalmic Goiter.
EMMET RIXFORD.
7. Avulsion of the Brachial Plexus, with a Report of Three Cases. A. T. BRISTOW.
8. Note on Permanent Suprapubic Drainage for Advanced Tuberculosis of the Bladder. C. A. POWERS.
9. Anatomical and Technical Reasons why the Perineal is Preferable to the Suprapubic Route in Prostatic Surgery. J. E. MOORE.

1.—See Therapeutic Department, Philadelphia Medical Journal, Vol. 10, No. 19, page 704.

2.—Davis concludes his paper on **subparietal rupture of the kidney** as follows: (1) That the reduction in the mortality since Keen's report has been largely due to improved technique. Fewer deaths have been reported from sepsis. Several deaths have been reported from hemorrhage which could undoubtedly have been avoided if more prompt and efficient means had been restored to. He predicts that the mortality will be reduced to 15%. (2) The expectant plan of treatment is permissible in cases in which slight hematuria is the only symptom. Tumefaction, much blood in the urine, severe pain and a history of great violence, each is a positive indication for prompt operative intervention. (3) Early operations should be done in all cases in which the history of the case and the symptoms point to a serious injury of the kidney. (a) Nephrotomy, with gauze tamponage, when the patient has not lost much blood, so that little subsequent hemorrhage would not endanger life. (b) Nephrectomy, when the kidney is irreparably injured, and in less extensive injuries when either sepsis or hemorrhage is likely to prove fatal. (4) In delayed cases it may be difficult or impossible to know just what is best to do. Every phase of the case must be considered, and then, if in doubt, operate. (5) Shock is the violent disturbance of the nervous system immediately consequent upon injury. While there is some ground for hesitation in those cases of true shock, most of the cases described as shock are depression of the vital force from hemorrhage or sepsis, and nothing short of prompt surgical intervention will prevent collapse. (6) Operate on the history of the case rather than wait for symptoms which may only suggest what should have been done earlier, but at last proclaim without hope of relief. [F. T. S.]

3.—See Philadelphia Medical Journal, Vol. 9, No. 24, page 1056.

4.—Cutler and Gibson report a case of **removal of the superior cervical sympathetic ganglion for glaucoma**. Glaucoma needs as prompt diagnosis as appendicitis and strangulated hernia. In the acute forms of glaucoma iridectomy must be considered the operation of choice, except when there is a tendency to intra-ocular hemorrhage. In all chronic forms of the disease the improvement to be expected from iridectomy is less, as the tension of the eye is less marked; until in simple glaucoma the results of the operation are at the most 50% of success, while in the cases on the borderline between glaucoma and optic atrophy,

iridectomy is of so little value that it has been given up by many ophthalmologists. In these cases, in hemorrhagic glaucoma, and in not a few cases in which iridectomy has failed to give relief or has done positive injury in the first eye, sympathectomy may prove to be the more conservative operation, especially as there is no evidence to show that the removal of the superior cervical ganglion of the sympathetic has resulted in any injury to the human eye. In the case reported, one of chronic glaucoma, the eye was improved by the operation. The right side of the larynx, the sternomastoid, the trapezius and the right half of the tongue were paralyzed after operation due to the traumatism inflicted on the contiguous nerves; the paralysis had practically disappeared at the end of 4 months.

[F. T. S.]

5.—Baldwin reports a case of **ligation of both internal jugular veins** during the course of an operation for the removal of enlarged lymphglands. The only evidence of interference with the circulation after operation was a slight puffiness of the face. [F. T. S.]

6.—See Philadelphia Medical Journal, Vol. 10, No. 1, page 17.

7.—Bristow has been able to collect 24 cases of **avulsion of the brachial plexus** not accompanied with loss of the limb. Seven of these occurred as the result of forcible reduction of dislocation, 4 resulted from heavy falls on the shoulder, 2 were occasioned by blows on the shoulder received in railroad accidents, 5 were caused by falling objects striking the shoulder, and 3 were caused by traction on the extended arm. The cause of the remaining cases is unknown. Of the 3 cases reported by the writer, one was seen 3 years after the accident and was considered hopeless. The second case had been operated upon one year previously for suture of the divided nerves, but the operation was unsatisfactory and the result practically negative. In the third case the brachial plexus was sutured soon after the accident, and sensation has returned over the entire arm.

[F. T. S.]

8.—See Philadelphia Medical Journal, Vol. 9, No. 24 page 1056.

9.—See Philadelphia Medical Journal, Vol. 9, No. 24, page 1057.

AMERICAN JOURNAL OF THE MEDICAL SCIENCES.

July, 1902.

1. Prognosis and Treatment of Tubercular Peritonitis.
F. C. SHATTUCK.
2. Pneumococcic Arthritis. JAMES B. HERRICK.
3. A Case of Jacksonian Epilepsy Caused by Tumor of the Brain. CHARLES BURR and WILLIAM TAYLOR.
4. Hydrocephalus from Closure of the Interventricular Passages. WILLIAM SPILLER.
5. A Case of Typhoid Fever With Trichinosis and Eosinophilia. THOMAS McCRAE, (London).
6. Fecal Impaction in Typhoid Fever, with Report of Cases. JOHN HENRY.
7. An Extensive Outbreak of Food Intoxication.
A. P. OHLMACHER.
8. Chronic Interstitial Pancreatitis. J. DUTTON STEELE.
9. Hypertrophy of the Lymphoid Tissues at the Base of the Tongue. HERMAN JARECKY.
10. A Clinical Lecture on Goiter. J. C. DaCOSTA.
11. Orbital Abscess Associated with Antral and Ethmoidal Disease. CHARLES A. OLIVER and
GEORGE B. WOOD.
12. Clinical Association of Cancer and Tuberculosis.
G. W. McCASKEY.
13. Primary Carcinoma of the Urethra in Women.
HIRAM VINEBERG.
14. The Use of the Röntgen Rays in Skin Cancer.
J. RINEHART.
15. A Review of the Surgical Diseases of the Gall-Bladder and Gall-Ducts. CHAS. L. GIBSON.

1.—Shattuck reports the statistics of 98 cases of **tubercular peritonitis** treated at the Massachusetts General Hospital either on the medical or surgical side. Only 57 of these cases either died or subsequently reported to the hospital, so that the final result was known. The greatest number of cases occurred between the ages of 20 and 30, and, of the whole 98 cases, 69 occurred between the ages of 15 and 40 years. The disease, however, may be slightly more frequent in children, as the number admitted to the hospital is small. It appears to be more common in Americans than in foreigners, although it would be interesting to know what proportion of Americans and foreigners was admitted for all causes. It is more than twice as frequent in females than in males, and appears to be rare in the colored race. In 20 cases there was a distinct history of tuberculosis in the family, and in one the patient had a tuberculous husband. Eight patients gave a history of previous pleurisy, and 3 of these had tuberculous family-histories. The general symptom appears to be abdominal pain. In one instance this was of exceedingly long duration: 17 years. In 23 cases diarrhea was present, and in 28 nausea, or nausea and vomiting. In 66 cases there was fluid in the peritoneal cavity, and in 26 its withdrawal was required. Of these 26 it was clear in 22, bloody in 6 cases. Fluid obtained by operation was either clear, greenish-brown or turbid or contained pus. In only 14 cases the specific gravity of the fluid is reported over 1008. In 10 of the 14 cases it was found above 1020. The quantity of albumin varied from 0.1% to 3.4%. In 29 cases masses could be detected in the abdomen, more frequent on the right than on the left side. Crepitation was rare, but was certainly present in one case, possibly present in another, and in a third friction over the surface of the liver was mentioned. The superficial abdominal veins were dilated in 3 cases; in 13 cases tuberculin was injected; in 8 the reaction was positive, in 3 negative and in 1 not satisfactory. In one case the tuberculin reaction was seen twice, and a subsequent operation failed to show tubercular peritonitis. In another case which did not react, an adenocystoma of the ovary was subsequently found. Thirty-four out of 46 cases in which blood examinations were made, failed to have more than 10,000 leukocytes. In the remaining cases leukocytosis of moderate extent was present, and in 3 of these pus tubes were also present. The diazo reaction was present in 12 cases. Temperature was irregular; sometimes it did not exceed normal or was subnormal, in other cases it reached 105° in the evening. Of the 98 patients 13 died, a mortality of 13.2%. Of 37 patients discharged from the medical side, 10 of 17 are known to have died. Altogether, of 25 cases in which the result is known, the mortality was 68%. On the surgical side, of 46 patients discharged, 26 have been heard from, and of these 6 have died. Altogether of the 52 surgical cases of which the result is known, the mortality has been 12, or 23%. The factors that influence prognosis are rather obscure. In 4 cases in which pus was present in the fluid, 3 are still living; of 4 cases in which the fluid was bloody, 3 are still living; one patient in whom the fluid was turbid, is still living, and of 14 patients in whom the fluid was clear, 9 are dead, 4 are well, and one is better. Of 7 patients without fluid one is dead and 6 are well. In 19 cases with masses, 12 are dead and 7 are well. On the medical side of the hospital the treatment was symptomatic. On the surgical side it consisted in an abdominal incision with perhaps removal of the tubes and ovaries, and all masses of tuberculous material. In conclusion Shattuck states that the mortality in the 98 cases, after a period of 2 to 11 years, is 47.3%. Medical treatment apparently gives a mortality of 68%; surgical of 37.5%. He concludes that tubercular peritonitis may be followed by complete recovery either under purely medical treatment, tapping or incision. It is important to keep patients under favorable hygienic conditions, and he is convinced that medical treatment including tapping

is justified for a time, but if the patient fails to gain within 6 weeks, incision should be resorted to. [J. S.]

2.—Herrick, after discussing the references and literature of **acute arthritis due to the pneumococcus**, collects all the cases recorded, including 3 of his own; altogether 52 cases. It is notable that in several instances one authority reports 2 or more cases. In the statistics of 2,292 cases of pneumonia reported from various hospitals only 2 cases of arthritis are mentioned, and in the statistics of the Charité, of Berlin, for 15 years, in 3,292 cases there were again 2 cases of arthritis mentioned. Probably the condition occurred in about 0.1% of all cases, although Raw found it in 1% of all cases. It is slightly more frequent in the joints of the upper extremities than of the lower limbs, and in males than in females. Injuries to the joints are often predisposing factors. The histories of Herrick's cases and of 3 cases published in his paper for the first time, but observed by others, are briefly as follows: Hektoen, in performing an autopsy upon a man, 47 years of age, with lobar pneumonia of the upper and lower apices, discovered a purulent synovitis of the left knee joint. The diplococcus of pneumonia was obtained from the pus. Quine mentions a case of croupous pneumonia following a pneumococcic angina and complicated with acute endocarditis. Swelling was noted over the right sternoclavicular articulation, and pus was evacuated which contained only the pneumococcus. Wells observed a woman of 32, who had symptoms of pneumonia in the lower lobe of the right lung. On the ninth day of the disease the left shoulder was sore and painful on motion. Later a swelling was observed over the left sternoclavicular articulation from which 13 drams of greenish-yellow pus were obtained. This contained only pneumococci. The first of Herrick's 3 cases was that of a man, 32 years of age, who had consolidation of the upper and middle lobes of the right lung. On the seventh day he had pain in the left elbow; 6 days later 2 drams of yellow pus were evacuated, and only the diplococcus was found in it. The patient recovered. The second patient, a man, 41 years of age, had alcoholic pneumonia and developed during convalescence pain in the left hip and knee. Later some reddish, thin fluid was withdrawn from the knee which contained only the diplococcus of pneumonia. The third patient, a man of 26, who in the course of the disease developed pain in the right knee from which 2 ounces of pus were finally removed by operation. The left elbow also became red and tender, but the joint cavity did not contain pus. Only the pneumococcus was obtained from it, but it was not sufficiently virulent to kill a rabbit. Herrick mentions other cases in which complications occurred, although cultures were not made. The symptoms of these complications are those of ordinary infectious arthritis. Its nature is to be suspected by the fact that it occurs in connection with pneumonia. The prognosis is grave, largely because the joint involvement indicates metastasis from the lungs. Of the 52 cases that Herrick has collected 34 have died, and 18 recovered. Treatment is surgical, but Herrick believes that too much manipulation should be avoided, simple aspiration and drainage being usually adequate. In one of his own cases aspiration caused complete recovery, and in another 2 aspirations gave a fairly good joint. The infection is probably hematogenic, and the changes in the joint are those of acute inflammation. [J. S.]

3.—Burr and Taylor report the case of a man, who, when 24 years of age, had an attack in which the left hand and mouth began to twitch, speech was impaired, and he then had a general epileptic convulsion. Seven similar attacks occurred in the course of the year. Examination of the patient's eyes by Dr. Fenton showed slight contraction of the fields and slight indefiniteness of the edges of the disks. Later he developed choked disks in both eyes and severe headache. An operation was decided upon, and as the patient had persistence of the stereognostic sense, and as

sensation was normal, a tumor was located in the frontal lobe adjacent to the motor tract. Immediately after the operation the patient had left-sided hemiplegia and hemianesthesia, with loss of speech. A week after the operation he had a convulsion involving only the right side. He gradually regained power and sensation in the left side, but later developed coma, his symptoms grew worse, and there was muscular wasting of the left forearm and hand. The patient died, 7 years after the commencement of the symptoms. The microscopical examination of the tissue removed at operation failed to show any signs of tumor. The interesting features of the case are the atrophy coming on after central disease, which they suspect may be due to the fact that the nerves, if palsied, are more susceptible than in health. Dr. Taylor reports the details of the operation. After an osteoplastic flap was formed, the dura was exposed and found to be pulsating. When the dura was incised the brain protruded and a large amount of brain substance was removed. He recovered readily from the operation. Taylor, however, believes that in future the best technique would be to prepare an osteoplastic flap rapidly and then, if hemorrhage from the brain occurs, to pack it with gauze, replace the flap and do the operation 2 days later. [J. S.]

4.—See abstract in report of the American Neurological Association, *Philadelphia Medical Journal*, June 28, 1902, page 1153.

5.—McCrae reports the case of a man, 23 years of age, a German, who was brought to the hospital with abdominal pain. There was slight leukocytosis, about 28% of eosinophile cells but no trichinæ were found in a portion of muscle removed. The Widal reaction was negative. The patient finally developed a roseolar eruption, then improved, had a relapse, in the course of which pneumonia of the lower portion of the right lung was found, and a positive Widal reaction was ultimately obtained. Before the patient was finally discharged, a second portion of the muscle was removed and in it trichinæ were found. The eosinophile cells were not altogether typical. The interesting features of the case are the association of trichinosis with typhoid fever which is apparently very rare, the effect of pneumonia in producing the very high leukocytosis, and the fact that the continued presence of eosinophile cells finally led to the correct diagnosis. [J. S.]

6.—Henry reports 4 cases of typhoid fever in which fecal impaction occurred. In the first the patient had a bowel movement every other day, but the hard feces could be felt far up in the colon, being distinctly palpable externally. It was only after enemata of sweet oil and the use of the uterine curette that the masses could be dislodged. In the second case the patient had pain in the abdomen with marked distension. The patient improved after calomel had produced large movements of hard masses. The other cases were readily relieved by enemata. The commonest cause is apparently overdosing with milk. [J. S.]

7.—Ohlmacher reports an epidemic in which 118 male and 100 female inmates of the Hospital for Epileptics of Galipolis, Ohio, were affected. The symptoms were chills, cold hands and feet, aching limbs, headache, nausea, and vomiting, staggering gait, profuse diarrhea and griping pains and cramps. The patients had high temperatures and there was marked prostration. There were no deaths. Only patients eating in the general dining-rooms were affected. Finally by a process of exclusion suspicion centered upon the oatmeal used at the breakfast table, and finally there was strong reason to suspect that the dust of the road collected upon the moistened ceiling of the room where the germs proliferated, and upon one occasion, when the loose plaster was knocked down, the dust sifted into the oatmeal and the bacteria rapidly developed and produced the toxins. Cultures from the ceiling showed the presence of the colon bacillus and the proteus vulgaris, and these were sufficiently virulent to kill guinea-pigs. Oatmeal inocu-

ated with this dust gave a substance that produced diarrhea in cats. [J. S.]

8.—Steele reports the case of a man, 72 years of age, who had a good appetite, moderate thirst and moderate polyuria. The pancreas was hard and microscopically was found to be sclerotic. The islands of Langerhans were particularly involved, diminished in number or size, and were invaded by fibrous tissue. The case probably represents the type of diabetes mellitus due to sclerosis of the pancreas. [J. S.]

9.—Jarecky reports a number of cases of patients suffering from chronic irritative cough, all of which were cured by removing the hypertrophied lymphoid tissue at the base of the tongue. He prefers for this purpose the lingual tonsillotomy to caustics. The diagnosis can be confirmed by applying a solution of cocaine to the tissues which usually stops the symptoms at once. [J. S.]

10.—DaCosta presented to his class at the Jefferson Medical College a patient with exophthalmic goiter with very characteristic symptoms. In view of the increasing credibility of the hyperthyroidization theory, he discusses the advisability of operative interference and decides against it because cure is occasionally obtained by rest. He also showed a woman, 17 years of age, who had a chronic goiter. This had enlarged to such a degree that it produced pressure upon the trachea, and therefore it was necessary to remove it. He undertook the operation, using local anesthesia, and dissected out the mass. The dyspnea was relieved as soon as the goiter was removed, and the patient made a very satisfactory recovery, although for 2 or 3 days her pulse was rather rapid. [J. S.]

11.—Oliver and Wood report the case of a girl of 13, who had had toothache, later protrusion of the left eye, swelling of the lids, diplopia and divergent strabismus. There was considerable interference with the vision of the right eye, but otherwise nothing very pronounced. There was pus escaping from the middle meatus of the left side of the nose. The light reflexes of the antrum of the left side were absent. The antrum was, therefore, opened and later an incision was made into the ethmoidal cells. A considerable amount of pus was discharged and the patient relieved. Subsequently several fragments of necrosed bone were discharged through the opening and in the course of time the patient became practically well. The authors mention some very interesting points regarding the diagnosis of these conditions. [J. S.]

12.—McCaskey reports the case of a man, 45 years of age, who had been in ill health for about 12 years, but only bed-ridden for 3 weeks. He developed extreme tympanites, vomited whenever he took food, had a slight elevation of temperature, obstinate constipation and tenderness in the region of the umbilicus. The lungs were negative. The liver was enlarged, there was extreme anemia, and a diagnosis of cancer of the liver was made. At the autopsy cancer of the liver and pancreas was found, the stomach, however, was not involved. The lungs contained numerous miliary tubercles. The paper concludes with a discussion of the simultaneous occurrence of cancer and tuberculosis, from which it appears that there is a certain antagonism between active tuberculous disease and cancer. McCaskey concludes that the antagonism is not diathetic, but is probably due to the morbid nature of the two processes. But the two diseases are not absolutely incompatible. [J. S.]

13.—Vineberg reports the case of a woman, 36 years of age, who suffered from frequent micturition. Examination showed a firm growth just within the meatus, and enlargement of the liver. The urethra and the growth were carefully dissected out, but the patient subsequently had no control over the bladder. An attempt was made to form a new urethra out of the mucous membrane of the vagina, but this was only partially successful. The examination of the tumor showed it to be a squamous-celled carcinoma. Urethral carcinoma not secondary to carcinoma of the vulva is exceedingly rare, probably only 3 cases

have been reported, although there is some doubt on this point. It occurs at any time between 28 and 75 years of age, but apparently usually in middle life. It may exist for some time without causing symptoms; the most frequently confused conditions are caruncle, prolapse of the urethra and fibroid mucous polypi. Prognosis is fair as long as radical operation can be performed. The only treatment is extirpation. Gersuny advocates the injection of liquid paraffin into the tissues of the neck of the bladder with the object of producing more resistance to the flow of urine, and giving the patient more control. French suggests complete closure of the vagina. [J. S.]

14.—Rinehart reports an additional case of **epithelial cancer** involving the cheek and lower eyelid, that he **treated by the X-rays**. The illustrations show almost complete cure. Rinehart prefers a low vacuum tube. The duration of the first treatment is 5 minutes, gradually increased to 20 minutes, and the distance at first is 8 inches, decreased to 4. The surrounding healthy tissues are protected by a thin lead sheet. He also notes results obtained by Gardiner in a case of cancer of the breast which entirely disappeared after the sixteenth treatment. [J. S.]

15.—Gibson classifies **diseases of the gall-bladder and gall-ducts** into the inflammatory conditions, calculi, new growths and obstructions other than gall-stones. The symptoms are variable in nature; they may be local or general. The diagnosis is often difficult; it involves the exclusion of other processes and the recognition of the nature of the lesion. Among the diseases most likely to be confused with it are those involving the liver, such as hypertrophic cirrhosis, all forms of disease of the pancreas, of the right kidney, particularly floating kidney, and diseases of the stomach, the appendix and the duodenum. In addition diaphragmatic pleurisy, neuralgia and various forms of peritonitis and some general diseases, as lead poisoning, may give rise to confusion. The most important factor in the diagnosis is probably the history. Gibson gives an interesting account of the differential diagnosis in the various conditions. Gall-stones appear to occur more commonly in elderly females than in any other class. The symptoms are pain and tenderness usually in the region of the gall-bladder, pain, often colicky in character, fever which is an exceedingly variable symptom and may be altogether absent, but when present is usually accompanied with fairly marked chill which may be repeated. Jaundice is also present, and is also variable; enlargement of the gall-bladder which may or may not be determinable, and the presence of gall-stones in the feces. The X-rays according to Gibson are valueless. He then discusses the various forms of biliary disease, classifying the inflammations as empyema, cholangitis and acute and chronic cholecystitis. Then the biliary diseases due to the presence of gall-stones, nearly all of which are due to the presence of the stones in the common duct unless inflammation of the gall-bladder may occur. Treatment is, of course, operative. Finally he discusses new growths, carcinoma of the gall-bladder or the ducts, obstruction of the ducts either from without or along the course of the duct or the papillæ, all of which conditions are to be treated by operative measures. In describing the operation he speaks of incision, preferring himself an "L"-shaped one, vertical in the axis in the gall-bladder, or along the border of the right rectus and transversely from this. Drainage of the gall-bladder may be accomplished either before or after it has been fixed to the abdominal wall. The operation can best be performed at one stage. Cholecystotomy without drainage is recommended. Cholecystectomy, he believes, is simple, safe and, in some cases, curative. Mayo's operation, that is stripping the gall-bladder of its mucous membrane, may sometimes be of great advantage. Other operations are cysticotomy and the various procedures upon the common duct. Choledochostomy is too dangerous to be recommended as a frequent procedure. Choledochotomy is, of course, the usual method. Various forms of anastomosis

between the common duct, or to reach the common duct through the duodenum, are practised. The prognosis of biliary operations is, for the simple forms, about 2% and for those cases complicated with jaundice about 20%. Fistulæ usually indicate that a more thorough operation should have been done, or must be undertaken. Gibson believes that improvement in the results of these operations will be due chiefly to earlier intervention. [J. S.]

NEUROLOGISCHES CENTRALBLATT.

June 1, 1902. (No. 11.)

1. The Central Tracts of the Oculomotor Nerves.

J. PILTZ.

2. Spinal Neuritic or Myopathic Muscular Atrophy?

T. COHN.

3. Further Communications Upon Asthenic Paralysis With Results of an Autopsy. S. GOLDFLAM.

1.—Piltz, calling attention to the 4 situations upon the cortex of the cerebrum of dogs in which irritation produces movements of the eye muscles, has undertaken the extirpation of 2 of these centers with the object of determining what secondary degenerations ensue. These are situated (1) in the posterior part of the frontal lobe just in front of the cruciate sulcus and just back of the precruciate sulcus; (2) the parietal lobe in the region of the facial center, occupying the lateral half of the anterior extremity of the secondary primitive convolution. After the extirpation of the first center, secondary degeneration was found in the neighboring convolutions, in the corpus callosum, in the anterior portion of the internal capsule, extending into the anterior medullary lamina of the globus pallidus, in the interior portion of the tegmentum, and the internal median portion of the peduncle. Fibers could be seen going from the upper portion of the corpora bigemina in the region of the oculomotor nucleus, some crossing over to the nucleus on the opposite side. After the extirpation of the second region secondary degeneration was found in the neighboring convolutions of the same side, in the cingulum, in the tangential layer of the subependymal substance, forming the roof of the lateral ventricle, in the corpus callosum, also in the internal capsule on the same side, in the optic thalamus, in the body of Luys, in the field of Forel and, finally, in the lateral portion of the peduncle. Optic fibers could also be seen passing to the anterior corpora quadrigemina. In addition, after the extirpation of this part, fibers could be seen passing through the island of Reil between the tegmentum and the median geniculate body. Some excellent figures accompany the article. [J. S.]

2.—Cohn reports the case of a girl, 15 years of age, who shortly after her first menstruation began to have attacks of vertigo with disturbances of consciousness. These came without obvious cause, lasted about 15 minutes and left no bad results. About a year before this, however, she began to have pain in the legs, difficulty in walking and rapid fatigue. When examined nothing definite was found excepting in the legs. The patient had a typical steppage gait, there was some evidence of weakness of the gluteal muscles, but no atrophies. Some quantitative reduction of the electrical reaction in the muscles of the legs was noticed, but the contractions were normal with the exception of the anterior extensors of the great toe in which they were somewhat slow; otherwise the patient was normal. The paper is still unfinished. [J. S.]

3.—Goldflam discusses the seat of disease in **asthenic paralysis**. There is reason to suppose that it is not a purely muscular disease, and its seat in the nervous system cannot be determined definitely, but he believes that there is no reason for supposing that it is not in the cortex. The nature of the disease is, of course, obscure, but it must be due to some dynamic alteration in the cells. The course of the disease shows marked remissions, but the prognosis is always grave. The treatment consists in careful protection both psychically and physically, and whenever severe symptoms arise, such as dyspnea, the patient should remain in bed. If there is difficulty in swallowing and at the same time dyspnea, it is best to introduce the sound. The most efficient remedy for difficulty in breathing is artificial respiration. The physician should limit his examination

of the patient. Treatment with drugs or with glandular extracts has hitherto been entirely useless. Sometimes change of climate or residence in the country causes improvement. Pregnancy is not certainly injurious. [J. S.]

June 16, 1902. (No. 12.)

1. A New Contribution to the Pathological Anatomy of Amyotrophic Lateral Sclerosis. A. von SARBO.
2. The Direction of the Ventrolateral Pyramidal Tract. WILLIAM SPILLER.
3. Fecal Vomiting in Status Epilepticus. H. GOETZE.
4. Spinal Neuritic or Myopathic Muscular Atrophy? T. COHN.

1.—von Sarbo reports his examination of the tissues of a man, 56 years of age, who, a year previously, had pain in the left knee, swelling of the left leg, weakness of the foot, degeneration in the muscles of the leg, distinct spasticity, but no disturbance of sensation. Later the hands were involved, there was total paraplegia and finally death. Microscopically degeneration was found in the hypoglossal nucleus of the medulla, and in many regions there were minute hemorrhages. The pyramidal tracts showed degeneration in the cervical regions. There were no cells to be seen either in the anterior or posterior horns of the spinal cord. The posterior roots were more nearly normal. Some granular cells were found in the pre- and postcentral gyri. By Marchi's stain degeneration was found in the pyramidal tracts in the hypoglossal and facial nerves, in the cerebellar tracts and even in the restiform body. No degenerated fibers were found in the cortex. By Nissl's method slight changes were seen in the pyramidal cells of the cortex, but others were entirely normal. [J. S.]

2.—Spiller calls attention to certain suggestions which have been made with regard to the **direct ventrolateral pyramidal tract** which he was the first to describe. He believes that it is a collection of fibers that are separated from the pyramidal tract, and appears certain that it does not decussate. Therefore he prefers to prefix the word "direct" to the previously adopted title. [J. S.]

3.—Götze mentions the case of a woman, 51 years of age, who after several severe **epileptic attacks vomited fecal material**. This was repeated several times. He believes that fecal vomiting should, under some circumstances, be regarded as a symptom of a severe epileptic condition. [J. S.]

4.—Cohn believes that his case undoubtedly represents a form of **progressive muscular atrophy**. It resembles the **peroneal type** very closely, but in no instance of this disease have the pelvic muscles been involved, or those of the legs. However, it does not exactly resemble any other type of the disease, and it is very rare for the dystrophy to commence in the muscles of the leg. [J. S.]

July 1, 1902. (No. 13.)

1. A Preliminary Communication Upon the Pathology of Tetany. A. PICK.
2. Silver Impregnation of the Axis-cylinders. M. BIELSCHOWSKY.
3. Hysterical Blindness. H. KRON.

1.—Pick mentions the case of a woman suffering from cataract and **tetany**, in whom he found **calcification of the small vessels of the brain**. He also observed the same thing in a case of epilepsy in a young man also suffering from tetany. He believes that this is an important addition to the etiology of the disease. [J. S.]

2.—Bielschowsky describes a new method for **impregnating the axis-cylinder with silver**. The tissues are hardened in a 10% solution of formalin, cut on a freezing microtome, and then placed again in the formalin. They are then placed in an ammoniated solution of silver nitrate, again in 10% solution of formalin, which should be slightly alkaline, until they are yellow. They are then placed in distilled water and examined under the microscope. The axis-cylinders are a deep brown, or black, the nerve cells yellowish or brown, and the rest of the tissue diffusely stained. In order to preserve the preparations it is necessary to place them in a solution of chloride of gold which is slightly alkaline, then in a 10% solution of sodium sulphate, and then they may

be mounted. A slightly modified procedure suffices for the impregnation of pieces of tissue. The minute details of the method must be read in the original. [J. S.]

3.—Kron reports the case of a telephone girl, 24 years of age, who was suddenly struck by an electrical discharge whilst using the 'phone. Half an hour later the patient was found greatly excited, the respirations and pulse were rapid, the left side of the face and left arm were red, and there was extreme contraction of the visual field in the left eye. The pupils reacted normally. Hearing, smell and taste were entirely lost on the left side, and there was anesthesia of the left side of the head. Later it was found that the left eye functionated well in binocular sight, but was totally blind when the patient attempted to see with it alone. The patient was totally deaf in the left ear. The history showed that she had had hysterical attacks before her present illness, and subsequent information indicated that she had not recovered. The second case, a seamstress, 35 years of age, awoke one morning blind in the right eye. In the afternoon she felt very weak, went to sleep and awoke blind in both eyes. There was convergent strabismus. She recovered rapidly under strong induced currents, but subsequent attacks occurred frequently. During these attacks the eyes could not be voluntarily opened, but could be firmly closed. There was **right hemianesthesia**, left hyperesthesia, increased reflexes, and a diagnosis of hysteria was made. Ultimately the patient recovered and the vision was normal. The paper is still unfinished. [J. S.]

LA RIFORMA MEDICA.

October 1, 2, 3, 4, 6 and 7, 1902.

1. Iron in the Body in Health, in Leukemia and in Chloremia. C. BARTOLETTI.

1.—The question of absorption and elimination of iron has been studied by many investigators. After an extended review of the work done in this line of research, Bartoletti takes up that part of the problem which deals with the elimination of iron in the urine. The salient points in the conclusions drawn are the following: The amount of iron in the urine varies with the diet; the quantity excreted being greater with a meat diet than with mixed food. Daily variations in the amount of iron eliminated are but slight, and such variations are in direct relation with the quantity of urine passed in the 24 hours. Hypodermic injections of iron in the normal individual cause increased elimination of that metal, the day following injection. The amount of iron in the urine of leukemic patients is slightly diminished; being about equal to the minimum quantity met with in health. In chloremia, the quantity of iron eliminated is inferior to the normal and varies absolutely or relatively to the amount of urine passed. Injection of iron in anemic patients is followed by increased elimination during the day after injection; but the quantity is less than that excreted after injection in the normal individual. The relation between iron in the blood and that eliminated by the urine is not constant; so that a larger amount may be excreted by individuals whose blood is poor in iron than by those in whom the iron-content of the blood is greater. [R. L. F.]

October 8 and 9, 1902.

- Experimental Contribution to the Physiology of the Caudate Nucleus. D. LO. MONACO and G. BELLANOVA.

Through ablation of the head of the caudate nucleus upon the right side, the authors produced in dogs so treated a partial paralysis of the left side of the body, together with hypesthesia and loss of the muscular sense. The fact that necropsy showed absence of any considerable hemorrhage is considered as a refutation of Szobbo's theory that the symptoms induced by lesions of the caudate nucleus are due to compression of neighboring parts from extravasation of blood into the ventricles. Hence it is concluded that the caudate nucleus is a true sensorimotor ganglion. The question is fully discussed whether its action depends

upon the nerve-elements composing it or upon connection through its radiating fibers with the motor zone, and the hypothesis is advanced that injury of the caudate nucleus brings about not only suppression of its function, but a disturbance of the equilibrium of the motor zone, which disturbance may be overcome as time goes on. The gradual attenuation of paralysis in the dogs experimented upon would seem to lend support to this theory. [R. L. F.]

REVISTA MEDICA CUBANA.

October 15, 1902.

1. The Supposed Parasite of Yellow Fever. A. AGRAMONTE.
2. Hypertrophic Pneumonic Osteo-Arthropathy. A. MESTRE.
3. Aseptic Calculus of the Kidney. J. P. GARCIA.

1.—This article embraces a part of the official report of the American Commission to Vera Cruz, in which it is stated that the bodies described are found solely in the blood of yellow fever patients, and that they may be considered to bear a distinct etiological relation to yellow fever. The finding by Agramonte, upon his return to Havana, of these bodies in the blood of apparently healthy subjects leads to a modification of the statement. The so-called parasite is said to be composed of a globular, hyaline and, at first sight, transparent protoplasmic mass. It is found free in the plasma and may only be recognized after some practice. It does not possess the power of locomotion, but protoplasmic movements may be seen within the body. It contains minute granules which are not as large in size or quantity as those of the lymphocytes and other white cells; these granules are seen to be in constant and rapid motion. [R. L. F.]

2.—Mestre contributes a paper upon this unusual condition, which seems to find its expression chiefly in deformity of the hands and feet; consisting of enlargement of the ends of the fingers and toes, imparting to them an appearance which has been likened to that of a drumstick. There is some enlargement of the phalanges, and the nails are misshapen, striated and enlarged so that their transverse diameter, in some instances, may reach 2 cm. The author's experience in this disease coincides with that of Marié in that there was almost invariably a history of pleuropneumonia prior to the development of the condition; and he leans to the belief that the hippocratic deformity of the fingers seen in tuberculosis may be a mild form of the condition known as hypertrophic pneumonic osteo-arthropathy. [R. L. F.]

3.—Garcia reports a case of uric acid calculi in a woman of 27, symptoms of their presence dating from her sixth year. Noteworthy is the fact that during all these years, an entirely aseptic condition was maintained. Operation for their removal was followed by complete cure.

[R. L. F.]

LA PRESSE MEDICALE.

August 16, 1902. (Vol. II, No. 66.)

1. Rare Localization of Raynaud's Disease. DECLOUX, RIBADEAU-DUMAS and SABAREANU.
2. Tubercular Feces are as Dangerous as Tubercular Sputum. ANGLADE and CHOCREAUX.
3. Alcohol and the Resistance of the Organism. MARCEL LABBE.

1.—Raynaud's disease rarely affects the face. The histories of 2 cases of the affection localized to the nose and ears follow. One patient had many attacks, due to chronic lead poisoning. The other, a woman of 65, was both tubercular and alcoholic. Their photographs are given. [M. O.]

2.—Anglade and Chocreaux found tubercle bacilli constantly in examining feces from tubercular patients. Inoculation showed these bacilli to be virulent. The technique is not difficult. They conclude that the feces are as danger-

ous as is the sputum, as a means of spreading the disease. Therefore they should undergo the same antiseptic treatment which is given sputum. [M. O.]

3.—A review of recent foreign literature shows that chronic alcoholism diminishes the resistance of the organism, while acute alcoholism aggravates the infectious diseases and quickly causes death. Small doses of alcohol have no action upon disease, either one way or the other. Yet the feat remains that, after illness, alcohol in moderate amounts is an excellent rebuilding stimulant. [M. O.]

August 20, 1902. (Volume II, No. 67.)

1. Obstetrics and Christian Morals. MOUREAU and LAVRAND.
2. Kephir from Goat's Milk. J. DUPAIGNE.
3. Intravenous Injections of Mercurial Salts in Syphilis. J. DUMONT.

1.—Moureaux and Lavrand reply to the criticisms of Thoyer-Rozat upon their book on obstetrics and morals, which was published last spring. These criticisms appeared in *La Presse Médicale* for May 21, 1902. [M. O.]

2.—After explaining the fermentation of goat's milk in the preparation of kephir, Dupaigne states that the advantages of home-made kephir are increased facility of fabrication, less loss of time and material, less expense, better taste and lack of the necessity of sterilizing.

[M. O.]

3.—Dumont reviews the technique, advantages, accidents, indications, contra-indications and results of Baccelli's intravenous injections of mercury in the treatment of syphilis. This method has been successful in all forms and at all periods of syphilis. [M. O.]

August 23, 1902. (Volume II, No. 68.)

1. Orthopedics. P. VILLEMIN.
2. Obstetrics and Christian Morals. J. THOYER-ROZAT.
3. The Disinfection of Books with Formol. BARBE.

1.—Villemin reviews the history of the advance of orthopedic surgery, showing the great importance which this branch of medicine has now assumed. Among the more valuable operations performed at present are tenotomy for muscular torticollis, appliances and tenotomy for club-foot, osteotomy and osteoclasis in the deformity of rickets, resection and osteotomy for tubercular bone disease, and tendon transplantation for infantile paralysis. Great advances have also been made in the treatment of Pott's disease, congenital dislocation of the hip and scoliosis. [M. O.]

2.—In reply to the article which Moureaux and Lavrand had in last week's issue, Thoyer-Rozat reiterates his statement that in those rare cases in which therapeutic feticide becomes necessary he would not hesitate, on account of religious scruples, to cause the death of the unborn infant in order to save the life of the mother. [M. O.]

3.—Barbe found that tuberculosis may be spread by books. The best means of disinfecting books was, according to his investigations, the use of formol in spray form, or as formaldehyde gas. [M. O.]

LA SEMAINE MEDICALE.

July 16, 1902.

The Pathogenic Agent in Whooping Cough and the Serum Treatment of this Disease. C. LEURIAUX.

Leuriaux believes that he has isolated the microbic cause of pertussis from the sputum of patients suffering from this disease. He describes it as an aerobic motile bacillus of oval form, which may be readily cultivated, and stained without difficulty. He has prepared a serum from the blood of horses which have been treated with increasing injections of filtered cultures of this organism. The ordinary technique of immunizing the horse is practised. Leuriaux claims that if treatment with this serum is begun early there follows immediate amelioration of the symp-

toms with cure in about 8 days. No matter at what period of the disease the serum treatment is used, it proves beneficial. But the best results are seen in cases treated early. Of the 66 cases he has treated, in 5 only was there no immediate improvement. [T. L. C.]

July 30, 1902.

Gastric and Intestinal Digestion and the Assimilation of Albuminoid Substances. E. SCHMOLL.

Schmoll presents a critical review of the work done by a number of German and French investigators in the physiological chemistry of the albuminoid substances and their fate in the body. [T. L. C.]

August 6, 1902.

The number of this date is devoted to the proceedings of the French Congress of Alienists and Neurologists, held at Grenoble, August 1-7, 1902.

August 18, 1902.

Ileocecal volvulus with Internal Strangulation Produced by Appendicitis. BARTH.

Barth reports this case as follows: A patient of 42 years was brought to the hospital suffering from what had been diagnosed as hepatic colic. He was treated with hypodermic injections of morphine but grew rapidly worse, and symptoms of strangulation of the bowel appeared. The patient died as preparations were being made for operation. It was subsequently learned that he had been a frequent sufferer from recurrent attacks of appendicitis for several years. The autopsy showed that formation of appendiceal adhesions had caused a condition of volvulus. [T. L. C.]

August 20, 1902.

Primary Unilateral Nephritis and Consecutive Lesions of the other Kidney. J. COSTAIGNE and F. RATHERY.

Costaigue and Rathery have carefully studied the frequency of acute and subacute unilateral nephritis. They have performed a number of autopsies upon patients who have died from the infectious diseases or toxemia, and who had presented symptoms of renal affection. In addition, a number of experiments were made by observing the effect of toxic material injected into animals. They state that an ascending nephritis may be primarily unilateral, and that this condition may also be found in cases of renal suppuration of hematogenous origin, but when the lesions are toxic they are always bilateral. When it is determined that a kidney is primarily affected, prompt surgical intervention is indicated, for secondary infection of the other kidney will soon follow. The conditions of the case will determine whether nephrotomy will be a sufficiently radical operation, or whether nephrectomy should be performed. In certain cases a nephrotomy will have to be followed by a subsequent nephrectomy. [T. L. C.]

August 27, 1902.

The Organic Changes in Infectious Diseases During the Period of Fever and of Convalescence. R. JAQUET.

Jaquet presents an admirable critical review of the literature on this subject. In conclusion he states that our views concerning the importance of hyperthermia have been considerably modified. We know to day that the pyrexia of the infectious diseases is not due to the increase in the organic interchanges to the extent at one time believed, and that the decrease of heat dissipation plays a most important role in the production of fever, which is but a symptom of the second order illustrating the gravity of the infection. During convalescence as much nourishment should be administered as can be assimilated for the purpose of repairing the tissue destruction. [T. L. C.]

Original Articles.

SOME POINTS IN THE TREATMENT OF POST-OPERATIVE ABDOMINAL CASES.

By JOHN B. DEEVER, M. D.,

of Philadelphia.

Surgeon-in-Chief to the German Hospital.

and GEORGE P. MÜLLER, M. D.,

of Philadelphia.

Formerly House Surgeon to the German Hospital.

It is just as important to treat the results of operation successfully as it is to carry the patient safely through the operation itself. Most of the smaller details of postoperative treatment are slighted when describing the statistics of successful operations, and yet, in many instances, the care which the patient receives after operation is responsible for the happy result obtained. In view of this fact the writers have thought that some of the methods used at the German Hospital might be useful to those whose material is not as large.

We seldom see shock, except in those cases in which profuse hemorrhage has taken place, such as in ruptured extra-uterine pregnancy, excision of the rectum, etc.

If the operation is performed as rapidly as is consistent with thorough work, and if the patient is not saturated with ether, the element of shock plays but a small part as a sequela to operation. By the prompt use of such stimulants as strychnine, atropine, whiskey and camphorated oil, hypodermically, with hot water bags and the use of hot saline solution by the bowel, the patient will rapidly react. In severe shock intravenous transfusion may be resorted to and between 2,000 and 2,500 cc. of salt solution given. We never practise hypodermoclysis; it is too cumbersome, slow and painful. As a rule, atropine, 0.00025, is given every two hours; strychnine, 0.001, every hour; whiskey, 2.0, every thirty to sixty minutes, and camphorated oil every fifteen to thirty minutes. The time is constantly changed, depending upon the condition of the patient. Two hundred cc. of saline solution at 110° F. and 30 to 50 cc. of whiskey are given per rectum every three to six hours. These orders, in order to be fulfilled, require the constant presence of a nurse at the bedside of the patient.

Cases in which the shock is due to hemorrhage almost invariably recover under this plan of treatment. There is another class, however, in which treatment is of little avail. We refer to those cases of acute appendiceal abscess with absorption of its septic products. The postoperative symptoms closely resemble true shock and, if severe, seldom respond to treatment, but rapidly become more and more septic.

In clean cases the patient is kept on the back for from twelve to forty-eight hours, the time depending upon the length of the incision. When gauze drainage has been employed, the patient is slowly turned, by means of supporting pillows, to one side at the end of 72 hours; of course, when glass drainage is used, no change is permitted, except alternately raising the hips on pillows.

In clean cases without drainage asafetida suppositories are given every three hours, and unless the

pulse demands strychnine (0.002 every 3 hours) no medication is given. The motto "Let the patient get well" has been strongly impressed on our minds by watching the ease with which such patients recover unaided. We do not, as a rule, allow any water to be given for eighteen hours or longer if nausea persists. The thirst complained of is at times almost intolerable, and some relief can be afforded by moistening the lips frequently and by washing out the mouth with water to which a little lemon-juice has been added. The use of water by the rectum has never, in our experience, lessened the thirst.

Backache is often a most annoying and painful sequela. To one who has experienced this pain no effort is too great to relieve another suffering from it. The hand of the nurse, a folded towel or small pillow, very hot water bags or, in some cases, a cold water bag may all be tried, but, as a rule, nothing gives relief except change of posture. The latter is far preferable to giving a dose of morphine.

In ten or twelve hours after operation flatus will be passed. Sometimes the effort to use the sphincter muscle causes a sharp pain in the wound. It is then better to pass the rectal tube or to insert a small hard-rubber nozzle, such as comes with a fountain syringe; this may be left in place for a half-hour or so. If no flatus has been passed at the end of eighteen hours, an enema of milk of asafetida may be given, about 60 cc., diluted with an equal quantity of warm water. It is at this point in the progress of the case that a common mistake is often made. The patient will complain of sharp, colicky pains over the abdomen, sometimes so severe that he insists on relief, and morphine is given. The pain is due to the peristaltic action of the bowels with probably the passage of flatus and movement of the injured cecum. Several of our house physicians who have been operated upon for appendicitis describe it as circling the abdomen and suddenly stopping with a sharp increase of pain in the right iliac fossa.

The passage of flatus will relieve all colic, and after the failure of the asafetida enema we place one or two ice-bags on the abdomen and give a high enema of turpentine, glycerine and magnesium sulphate in the proportion of one, two and three. The "see-saw" enema is given with the foot of the bed elevated, and when there is an inclination to move the bowels the foot is lowered and the head of the bed elevated.

On the third or fourth day after operation the bowels are moved with a plain enema, or with a glass of citrate of magnesia, and are kept open every other day. The common practice of giving fractional doses of calomel is frequently harmful on account of the griping pain produced and is usually useless in exciting peristalsis.

Twenty-four hours after operation we commence giving nourishment, starting with milk and lime-water; 5 or 10 cc. of each are given every hour, rapidly increasing the quantity if well borne. On the second day chicken broth, beef-tea and junket may be given with the milk. On the third, wine-jelly and gruel may be added, and from then on the diet is gradually increased, beginning with soft eggs, milk toast, custards and egg-nog, etc.

On the third day the patient should be getting

300 cc. of nourishment. About the third or fourth day, after the bowels have moved, the temperature drops to the normal. When it persists about 100° in supposedly clean cases, we thoroughly inspect the wound for stitch abscess. If any reddened, tender areas exist, a flax-seed poultice made with 1 to 2,000 bichloride solution is applied every three hours until the inflammatory condition has subsided. If an abscess is present, a few drops of thin pus will soon appear about one of the stitches, in which case the stitch or stitches must be removed, the incision partly opened to the bottom of the abscess, which is then washed out and a wet dressing applied or the poultice continued.

In clean cases we rarely dress the wound until the eighth day, at which time the stitches are removed.

In drainage cases glass is withdrawn in two to four days, depending on the discharge, and rubber substituted. Gauze is removed in six to twelve days, depending upon the force necessary to loosen it, and rubber substituted. The rubber drainage is shortened from day to day as the wound granulates up from the bottom.

In removing gauze drainage, boric acid should be used for irrigation, as the adhesions may not be perfectly formed, and a peritonitis could result from flooding the abdomen with bichloride or carbolic solutions.

Nausea and vomiting have not been referred to because we wished to call particular attention to the value of gastric lavage in these conditions. We find that the routine use of oxygen has lessened the number of cases suffering from ether sickness, but many patients experience vomiting for a few hours while coming out of ether. The stomach usually recovers its tone in a few hours, and there is no further nausea. Sometimes, and more especially in nervous women, the vomiting is pronounced and prolonged and tends, if unrelieved, to weaken and demoralize the patient. A purely ether sickness will usually be controlled by not allowing anything to be given by the mouth, by the use of rectal alimentation and by placing a small fly blister on the epigastrium. In some cases, in which nausea develops on the second or third day after operation, after water and milk have been administered, we can often control it by the use of a powder like this: Calomel, 0.01; cocaine muriate, 0.015 and cerium oxalate, 0.3. We give this and follow with a little Vichy, hot water or champagne every hour until nausea ceases. Nitrate of silver, chloroform, bismuth, etc., have all been tried without much success.

In other cases, however, such treatment is of no avail, and we can only control further vomiting by thoroughly washing out the stomach. For this purpose the usual rubber tube with bulb and funnel attached is used. A rubber sheet is thrown over the patient and well tucked around the head. The patient is informed as to what is to be done and told to open his mouth. The tube is wet with water, never greased, and introduced into the posterior pharynx, the patient being instructed to swallow; at the same time the tube is gently pushed back-

ward and enters the esophagus and thence in a few seconds passes into the stomach. The patient is asked to open his mouth widely and to breathe deeply. The stomach is emptied of its contents and well washed out, by siphonage, with a one-per-cent. solution of sodium chloride in warm water. Any medication is then introduced and the tube withdrawn.

We have rarely met with any difficulty in this procedure. If the patient is given confidence and made to feel that there is no danger of choking, he will take the tube easily, and often there is not even soiling of the bed clothes. The greatest discomfort is experienced when the tube is just entering the esophagus. At this time there may be violent retching, and patients have occasionally grasped the tube and pulled it out, refusing for a time to continue the procedure. Much of this pharyngeal irritation may be obviated by spraying the end of the tube with ethyl chloride. When much pain in the wound is experienced while swallowing the tube, we have a nurse place both hands firmly on the abdomen, making pressure on the wound and over the epigastrium.

When the stomach is filled with fluid, the passage of the tube will occasion vomiting, the contents of the stomach passing up alongside the tube being thus ejected. In these cases we turn the head to one side, place a small basin under the mouth, continuing the lavage, and in a few minutes the patient becomes quiet. After washing out the stomach, purgatives, whiskey, liquid peptonoids, large doses of bismuth, etc., may readily be introduced. The patient immediately becomes more comfortable, resting easily, and sometimes sleep is induced. Should the vomiting continue, lavage is again and again resorted to. In several cases we have washed out the stomach every three to six hours for a period of two days.

We have never noticed any serious depression or hematemesis following its use, nor have we ever introduced the tube into the trachea instead of into the esophagus, beside we doubt whether such an accident could happen with the use of ordinary care. There is rarely any necessity to introduce the finger into the patient's mouth, and when it is done we use adhesive plaster or a towel for protection from biting.

Lavage is very valuable in cases operated upon for cholelithiasis with gastric disturbances, and especially in those cases re-operated upon for gastropathic adhesions; also to control vomiting, should it occur, after gastro-enterostomy. We usually make it a routine practice to wash out the stomachs of such patients every six hours for the first twenty-four hours after operation. It is reasonable to believe that such a procedure would minimize the formation of adhesions the second time.

Sometimes in removing an ovarian cyst it ruptures, and for a few seconds its contents come in contact with the intestines. We do not know the bacteriological condition of this fluid, hence we begin the use of salts as soon as the patient comes out of ether. In many cases this is impossible owing to the vomiting induced, but by resorting to lavage we

are able to accomplish our object without any difficulty.

Another class of cases markedly benefited by lavage are those in which a paresis of the bowel exists, due to a mild peritonitis, simple atony or to the use of morphine, which should not be given for postoperative pain.

In the latter instances, the lavage and the salts soon stimulate and restore the normal peristaltic action of the bowel. The patient passes flatus abundantly, nausea ceases and a fecal evacuation soon follows. Eserine has been well tried in cases of distension and has never been observed to have any beneficial effect.

Purgation is the sheet anchor in the treatment of peritonitis, but it is impossible to administer purgatives in the presence of severe and persistent vomiting. Such cases usually run as follows: Shortly after operation, and after the effects of ether disappear, we may wish to begin to excite peristaltic action. For this purpose we usually give 5 to 10 gm. of sodium sulphate every hour. In twelve to eighteen hours no bowel movement has resulted, the abdomen becomes rigid and slightly distended, the distension being most pronounced in the epigastrium. There is slight hiccough, nausea and the frequent spitting of a dark material. The patient soon vomits large quantities of a black, foul-smelling material, which contains all of our salts. Reversed peristalsis has taken place. No flatus is passed, the tympany increases, and the patient may go from bad to worse and die from peritonitis in spite of all treatment. There are some cases which present these same symptoms, with frequent vomiting of black fecal material, in which life seems apparently saved by performing lavage two or three times. Peristalsis is restored, the bowel depleted and the stomach relieved of a load of irritating and toxic material. These are probably cases of paresis due to atony or to mild peritoneal infection.

We wash out early in these cases, until the returning water is free from discoloration, and introduce 30 to 60 gm. of Glauber's or Epsom salts, sometimes adding 30 cc. of whiskey or of liquid peptonoids to the purgatives.

The following case occurred a few weeks ago at the German Hospital:

A patient was re-operated upon for secondary hemorrhage, the bleeding checked and the abdomen flushed out with saline solution. He suffered very markedly from postoperative pain, for which morphine was administered twice. Twenty-four hours after operation purgation was begun, but without avail. The epigastrium became distended, the abdomen rigid, and nausea and hiccough followed. The stomach tube was promptly passed and about 800 cc. of intestinal material siphoned off, the stomach washed out well and 30 gm. of Epsom salts and 30 cc. of whiskey introduced. The nausea ceased immediately, thirst was alleviated and the patient dosed quietly for several hours. Twelve hours later the bowels moved, the distension disappeared, and nourishment by the mouth was commenced and retained. He is now convalescing. This case illustrates the effect of morphine in inhibiting peristalsis, though there was also some peritoneal irritation from the blood present.

We could cite many instances like the one above in which we feel sure that judicious lavage and the avoidance of opium, or of any of its preparations,

have been followed by recovery. That the giving of morphine after abdominal operations is responsible for a mortality we have no doubt.

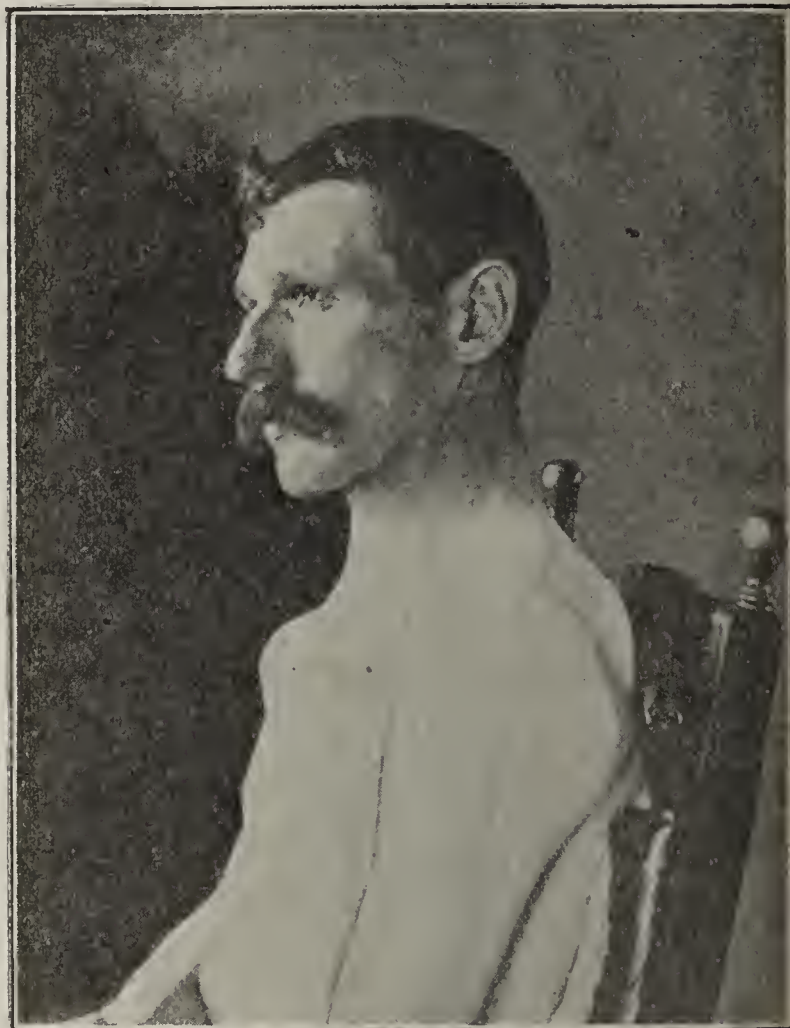
ANEURYSM OF THE ASCENDING PORTION OF THE ARCH OF THE AORTA, MANIFESTED EARLY BY INTRACTABLE INTERCOSTAL NEURALGIA; ALSO REPORT OF A CASE OF ANEURYSM OF THE ABDOMINAL AORTA: RUPTURE AND DEATH.*

By WILLIAM C. KRAUSS, M. D.,
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J. C., male, aged 34 years, weight 150 pounds, height 5 feet 6 inches, complexion dark, nativity Irish, occupation laborer. Family history: Father died at the age of 62 of the grip. Mother is alive and healthy at the age of 70. Three brothers and four sisters are alive and healthy, ages ranging from thirty to fifty. Personal history: The patient passed through the usual diseases of infancy; had a mild attack of malaria when 18 years old, otherwise has always been a healthy, vigorous man. He positively denies syphilis and objectively offers nothing upon which to assume its presence. From 1884 to 1892 he drank quite heavily and was intoxicated at times, but since then he has been a total abstainer. In 1895 he first noticed a slight pain over the left nipple, sometimes under it, occurring intermittently, not persistently. The pain not disappearing, he consulted a physician, who pronounced it a neuralgia, probably of the intercostal type, and without any cardiac involvement. The pain gradually grew more and more intense, always at the same place, not so intermittent and baffling all medical treatment. This condition lasted until the spring of 1898, at which time the man was engaged in heavy work, principally lifting, when he suddenly experienced very sharp pain extending into the left arm and hand, stiffening the hand so that he could hardly use it. This lasted about six weeks and gradually disappeared. The pain over the left nipple became more severe and seemed to move over to the right side a little to the right of the sternum. The pain had now become so intense and paroxysmal, that large doses of anodynes were administered to keep him in any way comfortable. He also began to notice a burning pain between the shoulders. With the exception of the chest pain, he complained of no other subjective symptom, never experienced any dyspnea, hoarseness, dysphagia, aphonia or altered condition of the voice. His strength had failed perceptibly, due to loss of sleep, intense pain and disordered digestion from long continued use of anodynes; otherwise he had until recently been able to do his ordinary day's work. He was referred to me on August 10, 1899, for a *persistent intercostal neuralgia*. An examination revealed the following condition: The general appearance of the patient was fairly good; no marked emaciation or weakness was noted. The conjunctivæ were bloodshot, the pupils were contracted, but equal, and responded to light and accommodation. Inspection of the chest showed it to be symmetrical and well formed. No swelling or irregularity of the thoracic contour was discernible. The apex-beat was perceptible in its normal position. Pulse 75 to 80, regular and uniform, showing no difference between the right and left sides. On inspiration the right half of the chest was partially restricted in its movement upward. Closer inspection of the right chest revealed a very slight pulsation in the third intercostal space, about two inches to the right of the sternum, synchronous with the apex-beat. *Palpation* elicited tenderness and pain over a circumscribed area about the size of a silver dollar in the right costal area coinciding with the area of pulsation. *Percussion* revealed dulness extending dextrad from the sternum to the right mammary line. *Auscultation*: A bruit, musical in character, synchronous with

the apex-beat, with acme of intensity in the third right intercostal space two inches dextrad of the sternum, was distinctly audible, and a diagnosis of *aneurysm of the ascending arch of the aorta* was accordingly rendered. The patient was now employed as night watchman, involving no difficult labor, and, being adverse to any surgical procedure, electrolysis or injection, unless the same promised absolute cure, he was advised to abstain from all violent work or exercise, such as running, lifting, tugging or climbing, and the anodynes were administered as before. From this time on a swelling in the intercostal space began to appear, becoming larger and larger, until after a period of six months it had attained the size of a small hen's egg, dense and firm but elastic, pulsating on all sides. It occupied the third intercostal space, projecting upward into the second and downward into the fourth, sloping to the edge of the sternum. It measured three and one-half inches in diameter at the base vertically, and two and three-fourths inches at its horizontal base. The tumor is no longer painful, but the pains circumscribe the mass, although they are not so intense as before the appearance of the tumor. An X-ray examination was attempted on two different occasions, but the skiagraphs were not very satisfactory, owing to the inability of the patient to remain in the recumbent position long enough for the exposure.



On Tuesday, June 17, 1902, he was presented before the semi-annual meeting of the Erie County Medical Society, at Buffalo, N. Y., and the following changes noted. The intense pain was no longer present, and the aneurysm was becoming innocuous, as described by Dr. B. F. Lyle in a case reported to the Academy of Medicine of Cincinnati, April 9, 1900, in which the subjective symptoms of aortic aneurysm nearly disappeared. The tumor was but slightly larger than it was a year ago, measuring now three inches at its vertical base and four inches at its horizontal base. It did not expand during the systole of the heart as it formerly did, although a weak thrill could still be felt. The aortic valve sounds could be heard through the tumor walls. Hypertrophy of the left ventricle has taken place, the apex-beat being most pronounced to the left of the mammary line. The aortic sounds were changed, a distinct bruit was heard with the second sound at the base. The

*Read before the Lake Keuka Medical and Surgical Association, August 20, 1902.

*The Cincinnati Lancet-Clinic, June 23, 1900.

pulse ranged from 75 to 80, was synchronous on both sides, regular and uniform; no tracheal tugging was felt, no disturbances of sensation of the chest were present, and the patient was able to do more work with less fatigue than at any time since his illness. In view of this condition I did not feel like urging any radical measures and only entreated him to live as quietly as possible and to take anodynes only when necessary.

The treatment of aortic aneurysm is surgical rather than medical, and of the different methods that of electrolysis is considered the most promising.

Charles H. Moore, of the Middlesex Hospital, in 1864 first attempted the cure of an aortic aneurysm by the insertion of a permanent foreign body. Sepsis was the greatest cause of ill success. With the application of aseptic surgery and the addition of electrolysis, as suggested by Corradi, a marked improvement in the method was made. Further modifications were made by American operators, especially by D. D. Stewart, of Philadelphia, who deserves most credit for his activity in evolving a good technique.

Hunner¹, of the Johns Hopkins Hospital, in 1900 collected 23 cases of aortic aneurysm treated by the Moore-Corradi method. Of these 23 cases, 17 were thoracic and 6 abdominal. Four of these, or 17 per cent.—3 thoracic and 1 abdominal—were cured. Nine cases, or 39 per cent., attest the value of the operation by amelioration of symptoms and prolongation of life. Death was probably hastened in the remaining 10 cases, the period of life after operation varying from 1 to 23 days.

As the object of this treatment, according to Moore, is to "provide means for eliciting fibrin from the blood," and "the second indispensable condition for relieving aortic aneurysm is to extend the surface within it on which fibrin may coagulate," the autopsy findings point to the efficacy of this method—even though the results do not meet expectations.

Since the publication of Hunner's paper, Hare² has reported an additional case, the patient dying 11 days after operation. Hare's first³ and second⁴ cases each lived for 7 months after the operation. Freeman and Clark⁵ report two cases of aortic aneurysm treated by silver-wire electrolysis, and draw the following conclusions: "(1) Considering the inefficiency of medical treatment, and the comparative efficiency of the use of silver wire and electricity, it is probably better to proceed to the latter at once without wasting valuable time upon the former. This seems all the more desirable when we consider that wiring is not a very dangerous process, and that it is in the early stages of an aneurysm, when the sac is still firm and the patient is in good condition, that the best prospect of cure exists. (2) Soft, undrawn, unalloyed silver wire, devoid of spring, that is to say, wire just as it comes from the shop, is preferable to the hard, highly drawn wire alloyed with copper and full of spring. It is hardly necessary to coil the wire previously. (3) It is still an open question as to which is preferable, a large amount of wire or a small amount; but the theoretical advantages are in favor of the former. (4) A strong electric current is preferable to a weak one. (5) The cannula through which the wire is introduced

should be inserted just within the sac and no further. (6) There is little, if any, danger of bursting the aneurysm from increase of pressure due to coagulation in a portion of the sac only."

Aneurysms of the ascending portion of the arch of the aorta are more common than those of the descending portion, the latter of about equal frequency with those of the transverse portion.

Hare⁶, in a study of 953 cases of aortic aneurysm, found that the ascending portion of the arch was the seat of the aneurysm in 570 cases; the transverse portion the seat in 104 cases, and the descending portion the seat in 110 cases.

The age of greatest incidence was found to be from 35 to 45 years, and the lesion affected the male sex with much greater frequency than the female. Syphilis did not seem to play as large a part as an etiological factor as is commonly supposed, and was far less common than alcoholism or trauma.

"The causes ascribed in cases of aneurysm of the ascending portion of the arch, among males, show that no less than 30 patients were considered to be perfectly healthy, so far as any causative factor was concerned; that 28 had a history of syphilis; that 45 suffered from alcoholism; 17 cases are said to have been due to rheumatism; 4 to syphilis and alcohol combined; 47 to trauma, and in the remaining 295 no statement as to the probable cause of the disease was made.

Etienne⁷, on the contrary, asserts that 70 per cent. of 376 cases examined were found to have syphilitic antecedents, and this is a minimum proportion, as it is so difficult sometimes to detect traces of old syphilis. He concludes that aneurysms, therefore, with tabes and general paralysis, can be included in what Fournier calls parasymphilitic affections.

The case teaches a very important lesson in reference to intercostal pain, emphasizing the fact that a diagnosis of intercostal neuralgia is not permissible until a physical examination shows the thoracic contents to be normal. Furthermore, that longstanding cases of intercostal neuralgia should be regarded with suspicion and diligent search made for some underlying causes, as aneurysm.

Frick⁸ reports a case of large aneurysm of the aorta in which the only subjective symptom was intercostal neuralgia. The sensory disturbances of the trunk, however, were very capricious and changeable in their character. One day the zone of anesthesia and hypoalgesia extended from the sternum to the axillary line; the next day there would be hyperalgesia with the sense of contact entirely gone. Sometimes the zone indicated a lesion of a peripheral nerve, or with hypoalgesia there would be retarded sensation of pain. The author observed another similar case in Schlesinger's clinic, so that these two cases indicate that these abrupt changes in the sensory domain may prove to be characteristic of aneurysm. Hysteria could be excluded from both cases.

Huchard⁹ called attention to the fact (before the Académie de Médecine, of Paris, May 28, 1901) that pain expressed by neuralgia of the thorax or lum-

1. Bulletin of the Johns Hopkins Hospital, November, 1900.

2. The Therapeutic Gazette, August 15, 1900.

3. The Therapeutic Gazette, August 15, 1900.

4. The Therapeutic Gazette, January 15, 1900.

5. American Journal of the Medical Sciences, Dec., 1901.

6. American Journal of the Medical Sciences, October, 1899.

7. Annales de Derm. et de Syph., 1902.

8. H. Frick: Wiener klinische Wochenschrift, 1901, No. 25.

9. Le Progres Medical, June 1, 1901.

bago of the abdomen may be the only symptom of a latent aneurysm for months without any external evidence of the lesion. The necessity for recognizing this symptom early may lead to active remedial procedures—to careful diet and régime—and prolong the patient's life indefinitely. Radioscopy is of great utility in these cases and has been successfully employed by Huchard and others to confirm the existence of latent aneurysm. Huchard proposes the term "*doulcur révélateur*" for the early appearance of this pressure pain.

Legendre¹⁰ presented to the Société Médicale des Hôpitaux, of Paris, March 22, 1901, an aneurysm of the aorta which during life was manifested only by a slight pulsation in the second and third intercostal spaces, along with a persistent and violent intercostal neuralgia and pains extending into the arm.

Another very interesting and noteworthy case was reported by Mills¹¹ before the Philadelphia Neurological Society, October 27, 1900, and diagnosed as a probable lesion of the posterior mediastinum.

The patient, a man, aged 43, after consulting many physicians sought relief from Dr. Mills for a dull, gnawing, grumbling sensation in a spot about one to two inches below the inferior angle of the left shoulder blade, which, although slight at first, had become more persistent and its exacerbations more frequent. The pain was increased to some extent by physical exercise, sneezing, talking aloud, and then it appeared to pass around and behind the ribs. After unsuccessful treatment he passed into other hands; then returned to Dr. Mills in a much worse condition. Being still somewhat uncertain of the nature of the painful disease, Dr. Mills presented him before the Neurological Society, and he was examined among others by Drs. J. B. Deaver, T. J. Mays, James Tyson, J. H. Lloyd, Morris Lewis, W. W. Keen, J. Madison Taylor and G. B. Massey. Several suggestions were made, among them were aneurysm of the thoracic aorta, neuroma, local neuritis, tuberculosis, and a probable small spinal unilateral growth and local meningeal inflammation. The patient was later carefully examined by Dr. Thomas J. Mays, who reported upon him as follows:

"Physical examination of the chest shows undue prominence of the upper part of the left side, which is associated with a pulsating tumor, about one and a half inches square, located at the junction of the first intercostal space with the sternum. Over the tumor there is marked dullness, which shades off toward the left and downward into a diminished percussion resonance. Over this dull area a diastolic murmur is heard which is probably generated in the aortic valve. No systolic murmur anywhere. No augmenting of the radial pulses nor of the femoral.

The respiration sounds are partially suppressed in the whole of the left apex, whereas in the right apex there is puerile respiration. Some sibilant and mucus rales exist in the upper part of the left lung. In coming to a conclusion concerning the nature of this trouble, I think it is evident that we have to deal with a growth or enlargement in the upper part of the chest and extraneous to the lung. There are no signs about to indicate the existence of an aneurysm, and I am of the opinion that there is a growth, probably lymphomatous or sarcomatous, in the posterior mediastinum, pushing forward the arch of the aorta and compressing the left bronchus, the left pneumogastric and the sympathetic chain on the same side. Whether the pain at the posterior base of the left chest is caused by this enlargement directly or in a reflex manner, I am not able to say because there are no physical signs on the back to indicate whether the tumor extends down that or not."

The patient died May 29, 1891, and the autopsy made the following day by Dr. John C. Heisler¹² showed an

aneurysm about the size of a fist which had ruptured and emptied its contents into the left pleural cavity, involving the left transverse and descending portion of the aorta, without implicating the subclavian artery, and containing organized and recent clots. Additionally, there were also erosion and partial perforation of the second and third dorsal vertebræ and some erosion of the necks of the second and third ribs."

In conclusion, I wish to report briefly a case of aneurysm of the abdominal aorta which was correctly diagnosed, but which terminated fatally on the operating-table through rupture of the aneurysmal sac.

The patient, a young man of 35 years, had had syphilis ten years previously, but had not undergone any rational treatment. By occupation a butcher, he was obliged to carry heavy loads on his shoulders, and he asserts that while carrying a quarter of beef he felt something give way in his body, accompanied with a dull pain. Soon thereafter he began to complain of a severe pain over the left lumbar region, which was treated for months as a lumbago, then as a sciatica, and finally as muscular rheumatism. Applications of various kinds were made externally without any permanent relief and he was sent to a hospital for treatment. The pain had grown so intense that large quantities of morphine were necessary to produce relief. Discouraged by treatment, he was brought home and was placed under the care of Dr. Carlton Jewett, with whom I had the pleasure of seeing the patient. He was but a shadow of his former self: pale, anemic, emaciated, scarcely able to move in bed and only resting comfortably after large hypodermic injections of morphine. Carefully examining the seat of the pain, it was found that its greatest intensity was at the level of the eleventh thoracic vertebra. The pain was more intense when the patient moved, especially when he tried to sit up in bed. There was no swelling or fluctuation present, but on deep pressure over the region one obtained a pulsation, which was synchronous with the heart-beat. The stethoscope did not reveal any very distinct bruit, although at times a murmur was heard. The diagnosis of aneurysm of the abdominal aorta was made, and, after rendering a dubious prognosis, the patient passed into other hands. He was now taken to the hospital for the purpose of exploring the left kidney. He was chloroformed and a lumbar incision made. The surgeon, on introducing his hand into the abdominal cavity, at once recognized the true condition, and, with a look of horror upon his face, exclaimed, "My God, it's an aneurysm," as he felt the blood swirling about his hand. He immediately ordered the anesthetic stopped, withdrew his hand, which was followed by a gush of blood, and the patient expired. Dissecting up the aorta, it was found that a large sacculated aneurysm was present, which had eroded the bodies of the eleventh and twelfth thoracic, and first lumbar vertebræ.

THE DIET IN TYPHOID FEVER.*

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of Philadelphia.

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When first invited to participate in this symposium on typhoid fever I had some hesitation in accepting, though fully cognizant and appreciative of the privilege extended to me, merely because I felt there may be those who would question the value of any contribution, unless supported by an array of clinical evidence, solidly marshalled into line. This I am unable to do in massive form, since I have to record cases seen only in private practice, but as I wish especially to call attention to the unnecessary restriction of food commonly practised,

10. Le Progres Medical, April 6, 1901.

11. Journal of Nervous and Mental Disease, December, 1890, page 845.

12. Journal of Nervous and Mental Disease, April, 1892, page 315.

*Part of a Symposium on Typhoid Fever. Philadelphia County Medical Society, September 24, 1902.

hospital records would not be likely to serve my purpose. Indeed, the dietetic management of typhoid cases is universally so similar that, as a matter of fact, comparatively little has been written advocating a departure from traditional lines, and still fewer statistical reports have been published. Curschmann¹ says there are few points in the management of typhoid in which such unanimity exists. This would seem at first sight to argue against the more liberal plan herein advocated, but it is only necessary to advert to the dictum of Graves and the time necessary to bring about its general acceptance, to prove that an almost unanimous opinion is not necessarily correct. Then, too, we know to-day that typhoid fever is a general infection in which the bowel lesion is but an incident and may be entirely wanting.

Two difficulties confront us in the dietetic management of a typhoid case: First, the exhausting fever, and, secondly, the state of the bowel, and while it is generally recognized that the former must be combated, the second refuses to down, like Banquo's ghost.

As to the feeding of fevers in general, there is no longer any difference of opinion, but in typhoid it is assumed, on no very good grounds, that the digestive functions in general are lowered far more than in any other condition; this, possibly, in part due to the length of the attack, with its attendant toxemia, and in part to lack of stimulation due to lessened desire for foods. However, in no other lasting febrile condition do we deem it necessary to restrict the diet to such an extreme degree, but, as a matter of fact, forced feeding is often resorted to by some. It is only just to add that the majority of observers restrict the diet rather from a fear of producing hemorrhage and perforation than on account of lowered digestive function.

Concerning the diminished desire for food, more is to be said. As is well known, it is by no means constant, though usually very little desire for food is manifested, but, as Rabelais has said, "L'appetit vient en mangeant." The work of Pavlof² and his pupils affords abundant evidence in this direction and justifies a rather extended notice. Borissof, in the last volume of *International Clinics*, gives a résumé of the work emanating from Pavlof's laboratory. One of the most interesting facts determined, and one having a relation to the subject under discussion, is the so-called psychical secretion of the digestive glands.

He proceeded by making a fistula in the stomach of a dog. Later the esophagus was divided and the cut ends sutured to the wound. Thus, when the dog is fed, the food falls from the upper opening, and though nothing reaches the stomach, secretion of gastric juice begins in from five to six minutes. It will begin in the same time, though less juice is secreted, even when food is merely shown to the animal. If small stones be given instead of food, no secretion will follow the attempt to masticate and swallow, showing that "chewing and deglutition are not the fundamental factors in this secretion." Then, too, with each kind of food a definite secretion of

specific composition results. Beside the psychical secretion a purely chemical secretion was also found. It was formerly taught that a mechanical irritation sufficed to cause gastric secretion, but Pavlof has shown this to be fallacious. Continued irritation with a glass rod, feather or sand failed to produce a drop of secretion. If to a dog with a gastric fistula fresh meat be given without allowing him to see it, Loba-soff found that in two hours but 6.5 per cent, had been digested. If now a dog be tantalized by showing him meat for a few minutes and the meat then be placed in the stomach, 31.6 per cent. was digested in two hours. Thus we see the psychical influence upon digestion.

So, too, with the salivary glands Pavlof has been able to show that psychical stimulation takes place, the secretion varying with the character of the stimulus, so that the oral cavity is thereby prepared for the reception of food prior to its actual administration.

For instance, if small clean stones be given a dog, no secretion results, even though he attempted to masticate them. If sand be placed in the mouth, there will be a free secretion of watery saliva, while a weak acid will give rise to a turbid, highly albuminous saliva. Raw meat causes no parotid secretion and but a small amount of thick saliva from the submaxillary gland. Dried powdered meat or dry biscuit cause large quantities of parotid secretion. This latter, therefore, does not depend on appetite or need for mastication, but on the dryness of the food. With the submaxillary gland, food gives rise to a thick secretion, as if to lubricate it and facilitate its passage to the stomach. It is thus seen that saliva moistens the food, rinses the mouth, dilutes injurious substances and, to some extent, neutralizes them.

This can be brought about by psychical means only, for, as already stated, precisely the same result follows when an animal, to whom the various substances have been given on some previous occasion, is merely shown them. The pancreatic juice was shown to be intimately influenced by gastric secretion. The lesson to be drawn is that, if the desire for food can be brought about, and this is more likely to be the case when a variety of food is allowed, psychical stimulation will aid in preparing the digestive organs for the reception of the food, and digestion will then be more rapid and thorough than in those cases to which merely milk and broths are allowed, for these pall on one, and thus the very important psychical stimulation is totally lacking. Further, as has been said, each food gives rise to a definite secretion of specific composition, best suited, therefore, to the immediate needs of the case; and, even granting that the digestive power is lowered, it will be less so when the blood and tissues are supplied with a rich source of energy from which to draw, than when merely a milk and broth diet is allowed.

The second difficulty is the bowel lesion. The clinical phenomena bear no relation to the morbid anatomical state of the bowel. An extremely mild and ambulatory case may have severe and deep ul-

ceration, while a profoundly toxic one may have none. Nor is it possible to judge of the degree of ulceration by the number or character of the stools. Diarrhea may be present in the entire absence of ulceration, or constipation may predominate when extensive ulceration of the bowel exists. We see, then, that the indication is to administer a nutritious diet to overcome the exhaustion and wasting attendant upon the prolonged fever, while, on the other hand, having nothing to guide us, we are fearful of provoking serious mischief in the bowel. But are we justified in our fears? In no other intestinal lesion are we so extremely and uniformly careful to limit the diet to liquids. In the ulceration of tuberculosis, in grave renal lesions accompanied with ulceration of the bowel, or in dysenteries, supervision is exercised, of course, but still a wide range of foods is permitted. I am well aware of the different morbid anatomical processes present in the various conditions and of the tendency for the typhoid ulceration rapidly to slough and deepen before an opportunity for the reparative process has been given, but to my mind this is favored rather than retarded, and that by the devitalizing influence of insufficient nourishment.

It is well known that the fever and marked weakness are often prolonged, a so-called inanition or starvation fever is set up by the limited dietary in vogue, and that improvement immediately follows when the patient is given nutritious food in sufficient quantity. It seems only reasonable, therefore, to infer that the marked apathy and exhaustion during the attack are not alone due to the infecting organism and its toxic effects, but more or less to lack of food, both as to quantity and variety, the deficiency thus bringing about a still lower resisting power on the part of the individual attacked. To those who feed their typhoid patients, this amounts to a conviction, for the picture which served to give the disease its name is almost wholly absent. The recovery from any infection is solely due to the greater resistance of the patient, and that this is more apt to be increased when a variety of food is taken willingly than when an obnoxious diet is given to the individual is self-evident from what has been said. "We do not so much cure these exanthematous maladies as keep our patients alive while they are recovering," says Sir Thomas Watson.³

Errors in diet are no longer conceivable as etiological factors in typhoid fever, though Curschmann⁴ believes that they may expedite the invasion in one already infected, and he believes that they may cause recrudescence and relapse. In support of his contention he cites the case of a man, aged 43, who was admitted to the hospital on account of anemia, lassitude and weakness. He had no fever; in fact, his temperature was a little subnormal. No history of a febrile attack preceding his admission could be obtained. He did not improve, but remained pale and weak and lost one kilogram in weight during eighteen days, in spite of the care bestowed upon him. He was thought to have a tapeworm and was successfully treated for

it. Three days later the temperature began to mount and remained up for 17 days. On account of the temperature curve, splenic enlargement, roseola, thin stools and diazo reaction, the diagnosis of typhoid was made. Curschmann opined that the man had been brought to the hospital during convalescence from ambulatory typhoid, and that the worm cure re-excited the attack. Of course, it is conceivable that marked changes in the dietary may cause some fluctuation of temperature, and this in proportion to the dietetic stringency immediately preceding. This is well exemplified in cases of starvation, in which it becomes necessary to administer food in small quantities frequently repeated, but no such temperature change is observed in one who has been liberally fed throughout the course of the typhoid attack. Admitting, then, that some accession of fever may be attendant upon improper or excessive feeding, the same is true not alone in typhoid but in any other disease during which the food allowance has been very greatly restricted. That is not a recrudescence, however.

It seems more rational to regard both recrudescence and relapse as varieties of the same thing, viz., fresh infection, differing only in that a recrudescence takes place during the decline of the temperature curve, while a relapse occurs after the temperature has fallen to normal and remained so for a greater or less length of time. Osler⁵ regards a relapse as occurring only when, after a period of apyrexia, the fever returns and persists for more than a week, and in which two or more prominent symptoms of the disease are present, as the rash, enlarged spleen, or gastro-intestinal symptoms. Shattuck⁶ says: "Constipation, nourishment unsuitable in kind or too large in amount, the excitement of a visit, or a number of other causes may produce a return or exacerbation of fever; to produce a relapse there must be a re- or auto-infection." I admit that an exacerbation of temperature lasting for a few hours may be due to a variety of causes, but a true recrudescence as well as a relapse, I believe, are in reality new infections. Warfield⁷, in common with most observers of to-day, believes that "a relapse is never caused by external and exciting causes alone, such as sudden emotion, overfeeding, visits of friends, etc., but it is due to a re-infection of the organism with the typhoid bacillus."

MacLagan⁸ and Stewart⁹ hold that relapses are due to infection of the bowel below, due to sloughs passing along the canal from above, but this need only be mentioned to be dismissed. Durham¹⁰ has advanced a much more tenable hypothesis. He says: "In studying any given infection we must not look upon it as a result of the action of a number of actually identical infecting individuals, but rather as the result of the action of a sum or a number of infecting agents, each of which is similar but not identical in its nature." He regards all infections as complex, due to varieties and subvarieties of the organisms causing them, and for each he supposes an antibody is formed. When the infective elements are approximately equal, we have a normal or isozymic infection, while unequal ones give rise to an abnormal or anisozymic infection. According

to this view, if the antibodies are elaborated in sufficient amount to overcome the different varieties of toxin, recovery occurs without relapse. If, however, several varieties of the infecting organism be present, some of them may predominate and their corresponding antibodies will likewise prevail, though small amounts of the antibodies corresponding to the remaining varieties will exist. Should these latter subgroups now assume an active state, reinfection will take place, often less violent than the original attack, because some of their antibodies are present, and thus is explained the usually milder character and shorter course of a relapse.

My reason for thus emphasizing the different views held with regard to recrudescence and relapse is to show that food is not responsible for either, and that we should not withhold it, therefore, on such a score.

To demonstrate that the mortality of typhoid fever has not varied materially, no matter what form of treatment was adopted, I quote from the report of Fitz¹¹, which gives the statistics of cases treated at the Massachusetts General Hospital during 78 years, from 1821 to 1899.

Years.	Mortality.
1829 to 1839	11.8
1839 to 1849	11.1
1849 to 1859	16.
1859 to 1869	15.9
1869 to 1879	16.6
1879 to 1889	16.
1889 to 1899	13.5

The mortality in the different years varied greatly, being *nil* in 1837, to 40 per cent. in 1868, though by decades it shows a striking similarity. This difference in the annual rate seems to have been due to the character of the prevailing type of the malady rather than to any modification in the treatment. Up to 1839, emetics, purgatives and blood-letting were resorted to, tartar emetic in doses of $\frac{1}{2}$ to 4 grains, calomel till the mouth became sore, yet during ten years of such treatment the mortality was only 11.8 per cent. The average mortality for the seventy-eight years from the opening of the hospital, in 1821, was 14.3 per cent., and from the cessation of the heroic treatment, in 1839, up to 1899, a period of sixty years, the mortality was 14.7 per cent. From 1839 to 1869 liquid diet only was allowed, the fluids often containing some farinaceous substance. From 1869 to 1879 beef tea, beef juice and milk were permitted, while from 1879 to 1899 the food was chiefly milk. From 1893 to 1898 the patients under the care of Dr. F. C. Shattuck received milk, minced meat, raw and soft-boiled eggs, macaroni, soft crackers, toast and puddings. During the thirty years of liquid, farinaceous diet the average mortality was 14.1 per cent.; on milk and beef tea 16.6 per cent., and from 1879 to 1899, when milk was the chief article of food, it was 14.6 per cent. The mortality among the patients treated by Dr. Shattuck was 11.3 per cent.

Intestinal hemorrhages occurred in 159 cases of the 2767 treated between the years 1849 and 1899, a ratio of 5.7 per cent. This has been much more

frequent during the past ten years than in the preceding decades. From 1893 to 1899 intestinal hemorrhage occurred in 10.6 per cent. of the cases on a milk diet, in 16 per cent. of those on strained proteid and amylaceous fluids, and only in 9 per cent. of the cases fed on fluids and soft solids. Owing to the obvious difficulty of estimating statistics bearing on the frequency of perforation of the bowel only cases for the past thirty years were considered. Of those seen from 1869 to 1879, the average frequency was 1.1 per cent.; from 1879 to 1889, 0.3 per cent., and from 1889 to 1899, 1.6 per cent.

Relapse occurred in 11.2 per cent. of the cases admitted during the past thirty years. Among those on a milk diet in 13.1 per cent., on strained proteid and amylaceous diet, 11.1 per cent., and in those on a diet of fluids and soft solids, 10.2 per cent.

Fitz summed up his conclusions as follows:

1. The treatment of typhoid fever does not differ in essentials from the principles laid down in 1839.
2. The average mortality from this disease has not materially changed from the days of active emetics, purgatives, venesection, antimony and calomel down to the present time.
3. Intestinal hemorrhage, perforation and relapse, upon the whole, are quite as frequent now as at any period in the history of the disease.
4. A considerable variety of diet may be permitted, not only without detriment, but also with possible benefit to the patient.

This last conclusion of Fitz is abundantly confirmed by the result of a comparative study of cases of typhoid fever made by Bushuyev and Sartsievich¹². The former fed his patients on bread, rolls, farinaceous foods, boiled eggs (soft or hard), boiled meat, cutlets, chicken, soups, pudding, jellies, milk, tea and wine. The latter allowed milk, as much as two liters in 24 hours, and one or two eggs, soft boiled or in Stokes mixture.

The following table shows the results:

	Bushuyev.	Sartsievich.
Number of patients	80	70
Recovered	72(90%)	65(87.8%)
Average days of illness on admission	7.5	5.8
Day on which recovery was complete	49.5	55.
Number of days in hospital	42.	49.2
Days of fever in hospital	18.9	22.3
Dismissed incapable of duty	6(8.3%)	10(15.4%)
Died	8(10%)	9(12.1%)
Day of death	28.6	26.7

We see, therefore, that the mortality was less among the well-fed, even though they were further advanced in the disease when admitted, the duration of the fever was shorter by several days, as was the total duration of the attack. A striking difference existed, too, in the physical condition of those discharged.

Bushuyev says he was unable to obtain a greater variety of food, else he could have excited the appetite of the patients, and in all likelihood they would have eaten more. This apropos of the work of Pavlof previously discussed.

During the year 1897, of 318 patients on a generous diet 26 died, that is, 8.2 per cent. This was less than the average death-rate for ten years at the

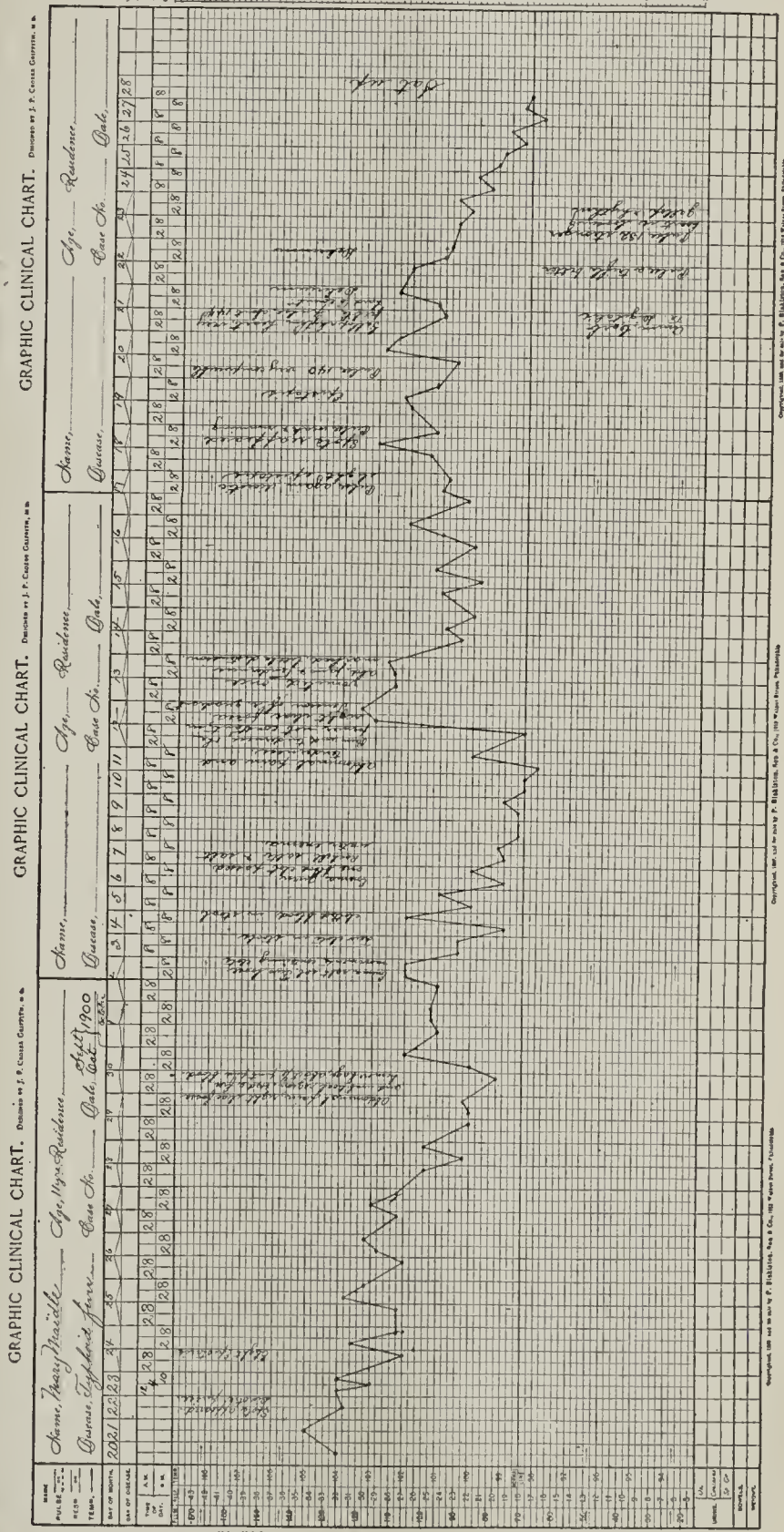
military hospital at Kiev, which was 12.4 per cent. Intestinal hemorrhage and perforation were not more common among the well-fed than among those on a purely liquid diet. The mental clearness and general well-being of the former class was very striking. The loss in weight was less than in those on a restricted diet, and they were almost well when the temperature fell to normal. I cannot do better than quote the reviewer, Dr. W. S. Thayer, who sums up as follows: "While one cannot but feel that this is the article of an enthusiast, yet both the reasoning and the figures are such as make us reflect. Is it not more than likely that many patients of typhoid fever suffer from too restricted a diet? Bearing in mind the long course of fever through which the patient must pass, the dangers to which he is exposed, not only from exhaustion and the accidents peculiar to typhoid fever, but especially from the various secondary infections to which he is so easy a prey at the end of his long fever and fasting, our main object should be to keep up his general nourishment by every means in our power. Obviously, if a more liberal diet than that afforded by the purely liquid regimen could be assimilated, the patient's strength would hold out materially better. In diphtheria or pneumonia or febrile tuberculosis do we not make an effort to induce the invalid to take as much as he can bear of a simple, easily absorbable and nourishing diet? And yet in typhoid fever we are restrained by a vague fear that any departure from the customary regimen is, for some reason or other, dangerous. What ground have we for this fear? The only answer is a quotation of a case in which, after a long course of fever, with a much restricted diet, some indiscretion had produced a sudden rise of temperature with alarming symptoms. An indiscretion in diet may produce such symptoms in any condition of severe physical exhaustion, but the reviewer has never seen anything to suggest that this is more common in typhoid fever than in any other similar condition."

Shattuck¹³, speaking on this topic, said: "For a number of years I adhered as strictly as possible to an exclusively milk diet in typhoid fever, until a week had elapsed from the date of the first normal evening temperature. I closed my ears to the clamors of adults and my eyes and heart to the tears of children—as I believe now, unnecessarily—" "For five years now I have been enlarging the diet of my typhoid patients and have seen no reason to regret this course, but, on the contrary, found cause for satisfaction."

Shattuck treated 233 cases on an exclusively milk diet during seven years, from 1886 to 1893, with a mortality of 10 per cent. During the five years from 1892 to 1897 there were 147 cases on a more generous diet, of whom 8.1 per cent. died. He advises caution in the feeding of typhoid patients, but insists that we are too hide-bound. We should treat

the patient, and not the disease, and feed him with reference to his digestive powers. He said he had never seen the last harm follow the use of a reasonably liberal dietary. It is useless to quote further. All who have had the courage of their convictions and have fed their typhoid patients are a unit in saying that only benefit accrues. The published reports of liberally fed typhoid fever patients are not numerous. The papers already quoted, also that of Brummitt¹⁴, dealing with 98 cases, with a mortality of 5 per cent., and that of Moorehouse¹⁵, who reports 117 cases, contain the largest number of cases which I found in a search which lays no claim to completion. Desultory reports are heard from time to time, however. For instance, Manges¹⁶ says in the discussion of his paper: "A number of cases of typhoid fever were reported in which the patients were, for some reason or another, fed upon solids throughout the whole course of the disease. Among these was one narrated by Dr. Leszynsky; the patient, being the wife of a doctor, thought she knew all about feeding, and insisted upon a diet of tongue and ham sandwiches, etc.; she could not be dissuaded, her chosen diet was regularly given to her; the course of the disease was uneventful. Dr. Kubin stated that, while he was house physician of the German Hospital, scraped ham was often allowed without any bad effects. Dr. Koplik said that at Bellevue Hospital Dr. Alonzo Clark and Dr. Delafield not infrequently permitted scraped meat. I may add that during a recent conversation with Dr. Janeway on this topic he told me of a patient at Bellevue Hospital who insisted on being fed on corned beef and cabbage; no harm resulted, since his case pursued the ordinary course." Beauloc¹⁷, in a thesis on typhoid alimentation, protested against the prevailing régime. He believes an exclusive milk diet is deficient in carbohydrates and excessive in fats. Prolonged usage often begets intolerance. In his opinion a reasonably liberal dietary neither augments fever nor conduces to hemorrhage or perforation, nor does it contra-indicate the employment of cold baths.

My own experience is comparatively small, dating from 1893, but all of the patients were treated at their own homes, most of them without the inestimable benefits conferred by skilled nursing. If, then, under such circumstances the patients do well, the adynamia and pronounced wasting are more or less prevented, convalescence is materially shortened and the patient enabled very promptly to resume his customary vocation, it is safe to assert that the results in hospitals would be even better. I do not believe it possible with our present means to shorten an attack, for it is a pretty definitely self-limited infection, but the total duration of disability may be very materially lessened, for it is really remarkable how rapidly those who have been well fed return to the normal. This is well shown in the two temperature charts submitted, notably



that of Helen S., whose temperature fell to normal, and remained so, within a couple of days after recovering from a relapse. It only remains to give an outline of the diet advocated. This depends

that one of the patients, whose chart I exhibit, Mary M., had a free hemorrhage of half a pint of blood, followed by the passage of clots and another hemorrhage some twenty-odd hours later. She was liberally fed, and as she desired and relished food and seemed to digest it, no change was made on account of the bleeding. Still another, Helen S., had an initial attack of moderate severity during which she was well fed. About ten days after the return to normal she had a relapse with fresh spots, epistaxis and headache. The nervous symptoms became alarming and for about 24 hours she lay in a marked typhoid state, during which it was impossible to get her to take anything but coffee and egg and a little milk. The moment she was able to take food it was given to her in variety, and her improvement was rapid, and the wasting and exhaustion were trifling considering the duration and severity of the attack. Among about 300 autopsies made in the past three and one-half years I have never found solid masses in the small bowel, no matter what diet the patient received, unless milk constituted the bulk of the food. The bowel contents become more or less solid from the splenic flexure of the colon downward, though, in the aged, solid matter is often met with in the cecum, but such cases need not be considered in this connection. With milk as the chief food I have found putty-like curds throughout the alimentary tract, and in one case I recall particularly they were pressed together and formed a mass as large as a horse-chestnut in the small intestine, and in the large bowel a mass as large as a hen's egg. In another case the bowel had perforated evidently but a short time before death, for the opening was closed by a fecal mass, chiefly a milk curd, and only trifling evidence of local peritonitis existed, without fecal extravasation.

Milk is, of course, an excellent food, but beside the tendency to form tough curds, patients frequently refuse to take it. They grow very tired of it and, the distaste for food thus engendered, makes it difficult to give them the proper amount of nourishment, and to the exhaustion attendant upon the infection is added the wasting due to starvation. Even when milk is well taken wasting is very great.

I should not care to be understood as advocating a full diet, but I am firmly convinced that patients ill with typhoid may be given quite a variety of foods, not only without harm but with decided advantage, both as to their condition during the attack and as a means of effecting prompt restitution of their physical vigor.

The objections of those who have never deviated from a liquid diet in their management of typhoid fever are necessarily theoretical. If they would permit themselves to override a deeply rooted prejudice, cover the label, as it were, and treat the individual (for once the diagnosis of typhoid fever is made, a morbid fear of anything but liquids enters the minds of most physicians), beginning gradually in each case and enlarging the dietary as the appetite and the digestive power seem to justify, they would find a vast improvement in the general condition of their patients, a speedy return to the normal of those which recover, and probably some decrease in the mortality-rate. Certain it is, judg-

ing from published reports, that the death-rate among the well fed is a little less than among those on a liquid diet, but, as previously mentioned, the prevailing type of the disease must be the chief factor when we see differences, such as 10 per cent. or even less, to 40 per cent. Osler¹⁸ gives the cause of death in typhoid fever as follows: (1) Asthenia; (2) intercurrent affections, usually caused by the invasion of the weakened organism by other parasites, as pneumococci, streptococci, etc.; (3) accidents of the lesions, as erosion of a large bloodvessel or perforation of an ulcer.

In conclusion, it only remains to add that free feeding will undoubtedly serve to diminish the number of deaths from the first and second of these causes. As to the third, those who have employed it are unanimous in their opinion that a liberal diet does not increase the liability to these accidents; on the contrary, rather tends otherwise by increasing the resistance of the individual.*

1. Curschmann, "Der Unterleibstypus" in Nothnagel's System, p. 423.
2. International Clinics. Vol. II, Twelfth Series, 1902, p. 274.
3. Watson's Prin. and Pract. of Physic, 14th. Edition.
4. Curschmann, loc. cit. S. 343.
5. Osler. Johns Hopkins Hosp. Rep., Vol. IV, No. 1.
6. Shattuck. Boston Med. and Surg. Journ., Vol. CXXI, 1839, p. 22.
7. Warfield. Johns Hopkins Hosp. Bull., July, 1902, p. 174.
8. MacLagan. The Lancet, Dec. 8, 1900, p. 639.
9. Stewart. Quoted by Warfield.
10. Durham. Journ. Path. and Bac., Vol. VII, 1901, p. 240.
11. Fitz. Boston Med. and Surg. Journ., Vol. CXXI, 1839, p. 506.
12. Bushuyev and Sartsievich. Progressive Medicine, Vol. 1, 1899, p. 327.
13. Shattuck. Journ. Am. Med. Assn., Vol. XXIX, 1897, pt. 2, p. 51.
14. Brummitt. Australasian Med. Gaz., Dec. 20, 1901.
15. Moorehouse. Boston Med. and Surg. Journ., Nov. 15, 1900, p. 494.
16. Manges. Med. Recrd (N. Y.), Jan. 6, 1900, p. 1.
17. Beauloe. These de Toulouse. Gaz. heb. de med. et de Chir., June 1, 1902, p. 508.
18. Osler. loc. cit.

FOREIGN BODIES IN THE VERMIFORM APPENDIX

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It is safe to say that in the earlier days of operations upon the appendix vermiformis, less than two decades ago, all of the laity and many members of the medical profession believed that appendicitis was generally, if not always, caused by the presence of a foreign body in the appendix. This belief arose from the fact observed in autopsies, especially those made upon fatal cases of peritonitis, that the appendix contained, or had recently contained, a concretion which was assumed to have a grape-seed, apple-seed or some other foreign body as its nucleus. Indeed, within the last ten years (it was in 1893) a distinguished foreign physician, who was present at my clinic when I operated upon two cases of gangrenous appendicitis, in each of which a large concretion was a conspicuous feature, said to me, in speaking of the case after the clinic was over: "Excuse me, but I did not hear you bring out the fact (in the history) as to when these patients had eaten the grapes."

*I desire to express my thanks to E. E. W. Given, M. D., for his aid in culling the literature with me, and for his preparation of the temperature charts.

Surgical treatment of the inflamed appendix and its consequences necessarily led to a careful and thorough examination of the parts removed as well as of all the tissues involved, and especially of the concretions and other contents of the appendix. The result has been an absolute demonstration that appendicitis does not depend upon the introduction of foreign bodies; and, moreover, that real foreign bodies in the appendix are very rare, indeed. The concretions so constantly found nearly always consist of inspissated fecal matter without nuclei of any kind; and all degrees of inspissation are observed.

I will now go further and state my opinion that, when foreign bodies do enter the appendix, they are either accidental occupants, or, if they give rise to symptoms at all, they do so in a different way, and do not, as a rule at least, cause a genuine appendicitis. In the last ten years I have found the following foreign bodies in the appendix in cases operated upon for its removal, viz.: In two cases, ordinary pins; in one, a forked fish-bone; in another, a large and a small gall-stone; in another, two seeds (probably flax-seeds); in another, a bit of woody fiber (probably apple core); and in another case, in which a portion of the appendix had sloughed off, a large lumbricoid worm lay in the localized abscess.

This is not a large number to have discovered in, say, about 900 to 1,000 operations, and yet, so far as I know, it is much larger than the average proportion. I have discussed this question with a good many surgeons who have each done a large number of operations, every year, without ever having found a foreign body in the appendix. Of course, I refer to real foreign bodies, introduced from without, and do not include those fecal concretions or accumulations (coproliths), some of which may contain foreign material. The fish-bone, the flax-seeds and the apple core were probably accidental occupants of the inflamed appendix, although it could not be shown that they had no relationship to the disease, and the worm had probably escaped through the open end of the appendix and had nothing whatever to do in causing appendicitis.

In one of the pin cases the discovery was made so late in the suppurative process that no inferences could be reasonably drawn one way or the other. In this case the patient, a young man, had suffered from an abscess in the right Scarpa's space, which had been opened and drained. A sinus had persisted, and he came to the hospital several months afterward. In following up this sinus it was found to extend beneath Poupart's ligament and to communicate with the open extremity of the adherent appendix. The appendix was removed and an ordinary pin was found lying in the abscess cavity at its extremity. The symptoms had been indefinite and subacute, and had not caused any suspicion of appendicitis. In all probability perforation of the appendix at its tip by the pin had occurred, causing adhesion and abscess without any inflammation of the appendix itself.

In the other two cases, which were observed in the acute and early stages, the symptoms and pathological changes produced were those of intestinal perforation. They were, briefly, as follows:

CASE 1.—A boy, 16 years of age, was admitted to the

Royal Victoria Hospital on the afternoon of July 9, 1894, with a diagnosis of acute appendicitis, and immediately operated upon. He stated that he had been kicked in the abdomen on the 7th, 48 hours previously, and that pain and vomiting had begun almost immediately. There was a definite hard and tender mass in the appendiceal region lying well anteriorly. On opening the abdomen this was found to be the appendix imbedded in an enveloping mass of omentum. The whole mass was removed and on examination a black pin of medium size was found protruding through the appendix near its apex. Two-thirds of the pin lay outside the appendix in a small collection of pus. The mucous membrane of the appendix did not seem to be abnormal, and bacteriological examination of it was negative. The boy stated that for a year previously he had slight attacks, of short duration, of pain in this region. This history seems to show very clearly that the pin had found its way into the appendix several months previously and had given rise to very little in the way of symptoms until a blow upon the abdomen caused it to perforate the appendix; and then arose a train of symptoms due to perforation without pre-existing inflammation.

CASE 2 has a very similar history. A young woman, aet. 22, on the afternoon of Thursday, July 31, 1902, had stepped up on to the seat of a chair to enable her to place a heavy book upon a high shelf. In stepping down, afterward, the chair tilted and the back of it struck her in the lower abdomen and gave her some pain, and she felt sore for the balance of the day and the next day, Friday. On Saturday she scarcely felt it and did her day's work and ate her evening meal about 6 o'clock with her usual relish. About 9 o'clock, however, she began to have severe pain in the abdomen. This was so severe that a physician was called and gave her a hypodermic injection of morphine and she had a fairly good night. On Sunday she had a good deal of pain and vomited frequently. Sunday night she suffered a good deal and about 8 o'clock on Monday morning the pain became unbearable, and she could not "get her breath." The ambulance was sent for, and she was brought to the hospital. I was summoned at 10 o'clock A. M. She then showed all the evidences of having a severe general peritonitis. She was livid, breathing with difficulty, short catchy breaths; pulse 140 to 160; temperature 102° and the abdomen somewhat distended and absolutely rigid. The previous history could not be fully obtained under the circumstances, but these two important facts were elicited—she had had an attack when she was 13 years of age which had been diagnosed as appendicitis, and she had never suffered from dyspeptic symptoms. In spite of these statements I thought that the peritonitis was probably due to a perforated gastric ulcer and opened the abdomen in the middle line above the umbilicus. There was a gush of gas and a flow of pus when the peritoneum was opened. The whole cavity was literally swimming in pus. There was no perforation of the stomach, and the gall-bladder and gall-passages were normal, but a mass was felt by the hand within the abdomen, in the appendiceal region. An incision was made over this, and the cecum delivered through it. The appendix stood upright with an opening near its base, as large as a five-cent piece, partially blocked by a large faceted gall-stone more than half an inch in diameter. A small faceted gall-stone lay in the appendix beyond the larger one. On moving the bowel so as to displace the stone, liquid feces poured out of the opening. The appendix, including the stone, was removed, the peritoneal cavity cleansed and drained and the patient did well. On August 11 the gauze was removed and the wound sutured. On the 20th. the temperature began to go up. On the 25th. there was slight cough but no pain, some slight increase in the area of dulness in the right side, some slight upward increase in the area of hepatic dulness. An aspirating needle introduced in the eighth intercostal space just behind the posterior axillary line, found pus. Next morning, on the 26th., a portion of the eighth rib was removed and a healthy pleural cavity opened. A portion of the ninth rib was then removed and adherent pleura encountered but no pus and a crepitant lung. A needle introduced through the lung withdrew pus. The lower border of the lung was then perforated at the spot by the cautery but no pus found. The finger introduced found neither pus

nor cavity and separated the adherent lung from the diaphragm for some distance. In the meantime the patient began to cough and expectorated about half an ounce of pus. Since that time a moderate discharge of pus has developed through the lung, and an occasional small quantity is expectorated. The patient is still feverish and weak, but has neither symptoms nor local signs, and her abdominal condition is all that could be desired.

It will be noted that the first symptom in this case occurred from 50 to 52 hours after the injury, that operation was performed about 38 hours after the first abdominal symptoms, and that the later symptoms of subphrenic abscess penetrating the pleura occurred about 21 days after the operation.

Here again the foreign body had been in the appendix for a long time (nine years), and a slight blow upon the abdomen was the initial factor in producing a large perforation of the appendix, close to the bowel, with precisely the same result as would have followed had an opening been produced by a shot-gun, stab-wound or other traumatism, or by an acute or chronic ulceration from within.

Incidentally I may point out that this case is almost unique in the number and variety of unusual and grave pathological conditions. In the first place, the passage of gall-stones is unusual at such an early age; secondly, there is clear demonstration that the large gall-stone must have passed along the gall-ducts into the intestine, as I examined carefully the gall-bladder at the time of operation and ascertained that nothing in the way of spontaneous anastomosis (if one may use the term) between the gall-bladder and any part of the intestinal canal had occurred. Thirdly, the perforation after a slight traumatism and, finally, the extraordinary course of the pus, which found its way into the lung three weeks after operation. In explanation of the latter condition I believe that it must have found its way into the mediastinum along the right crus of the diaphragm.

It would, of course, be absurd to draw general conclusions from such a small number of cases as I have been able to report in the present communication; but when, on the one hand, such an overwhelming number of cases of appendicitis are due to causes other than the presence of foreign bodies in the appendix (causes with which we have at present no concern), and, on the other hand, when the cases which have been observed of foreign body in the appendix seem to show that the foreign body had no such causative relation to the disease; and, finally, when these facts are *a priori* in accord with the results of general surgical experience, the conclusion would seem to be almost irresistible that such foreign bodies have no essential relationship to the condition which is so widely and generally known as appendicitis. I am well aware that it is unnecessary to argue this point, as no one at the present day would seriously dispute the foregoing conclusions, but the discussion of this subject has given me the opportunity of placing on record a couple of very interesting cases and calling attention to a cause of intestinal perforation which has not heretofore been generally recognized.

THE MICROSCOPICAL AND CHEMICAL FACTORS IN DETERMINING THE FUNCTIONAL CONDITION OF THE KIDNEY.*

By LOUIS HEITZMANN, M. D.,

of New York.

If we are to determine the functional condition of the kidney, it is but plain that neither the chemical nor the microscopical examination alone will be sufficient, and that both chemistry and microscopy must be used. It is perfectly true that the microscope in most cases will tell us more than chemistry, yet the latter is an aid in a good many cases and we can make a better diagnosis if we have resorted to a chemical examination before using the microscope.

As regards chemistry there is little to be said, as it is well known that the specific gravity, the presence or absence of albumin, the amount of urea and of uric acid voided are all essential to determine the functional condition of the kidney, and it seems hardly necessary to allude to the fact that a portion of the 24 hours' urine is absolutely useless for this purpose; nevertheless, examinations are continually made from a morning, an afternoon or an evening specimen without ever taking the 24 hours' mixture. The specific gravity may be low at a certain time of the day, and high at another time, without necessarily being pathological, but when the specific gravity of the entire 24 hours' urine falls below a certain point, down to 1014, 1012 or less, and this continues for a long period, a suspicion must at once arise that one or both kidneys do not perform their proper function. A specific gravity of 1014 will almost invariably give a smaller amount of urea than is normally the case. The normal amount of urea with a mixed diet is between 500 and 600 grains or 32 to 40 grams in 24 hours; when the specific gravity is 1014, the chances are that the amount of urea voided will be 350 or 300 grains of urea, provided the quantity of urine in 24 hours is normal. Yet, even if as small an amount as 200 grains of urea is voided, this alone is not sufficient to give a bad prognosis and to say that the functional power of the kidney is so much impaired as to be dangerous. It should not be forgotten that even under physiological conditions the amount of urea may vary to a great degree, and that different chronic affections, in which the constitution is impaired, but the kidney is not as yet diseased, will also give a small amount of urea. It is by no means rare to see cases which continually void no more than 175 grains of urea, or even less, and in which a thorough examination of the urine does not show any derangement in the kidney whatever.

Again, the presence of albumin alone in the urine is no criterion for a nephritis, since even a fairly large amount of albumin does not necessarily mean a disease of the kidney, and the kidney may be perfectly normal. It must always be remembered that the presence of puscorpuscles and blood globules, no matter from what part of the genito-urinary tract they are derived, may be sufficient to give a posi-

*Read before the American Urological Association, May 7, 1902.

tive reaction for albumin, yet often enough no other test than that for albumin is resorted to, and when there is a positive reaction, the diagnosis of so-called Bright's disease is made, without any further chemical or microscopical examination. On the other hand, there may be only a trace of albumin, or none whatever, found with the regular tests employed, yet a nephritis undoubtedly exists, as proven by the microscope.

Many who take the trouble to examine the urine microscopically will look for tube casts and for nothing else, and, these being absent, they will at once exclude the possibility of a nephritis. This is undoubtedly a sad mistake and, if we examine urines, we will soon find that nephritis with casts is less common than nephritis without casts. In cases of interstitial nephritis we find casts only when the inflammation is very pronounced, and these in but small numbers. As a rule, we do not even find casts in cirrhosis of the kidney—the outcome of a chronic interstitial nephritis—although the microscopical features in these cases are characteristic enough.

It stands to reason that, whenever puscorpuscles or, as some prefer to call them, leukocytes, are found in the urine, there must be an inflammation somewhere in the genito-urinary tract, and the epithelium present will tell where the inflammation is situated. In every case of nephritis we find puscorpuscles and epithelium from the convoluted tubules of the kidney, which latter are invariably about one-third larger than the puscorpuscles in that case. Nuclei may or may not be found in the puscorpuscles, although we often do not see them in these corpuscles, but do find them in the epithelium; the sizes of the epithelium alone will tell us their source. A number of authors still claim that it is next to impossible to diagnose epithelium from the uriniferous tubules of the kidney without the presence of casts. If we take casts, which are generally recognized as epithelial casts, and study the epithelium upon them, we will find exactly the same epithelium as those described as being one-third larger than the puscorpuscles.

The presence of puscorpuscles with these epithelial cells will at once allow us to diagnose some inflammatory trouble in the kidney. Beside these, we would naturally expect red bloodcorpuscles in every inflammation, these being more abundant in the acute and less abundant, even entirely absent, in the chronic inflammation. In chronic inflammations we also expect secondary changes of the protoplasm, and will find in the puscorpuscles a varying number of small, highly refractive, glistening globules and granules, the newly formed fat globules; the more chronic the inflammation, the more abundant these fat globules will be. Furthermore, it stands to reason that, as a rule, the more numerous the kidney epithelium, the worse is the inflammation, but this does not always hold good. When we have epithelium from the convoluted and narrow tubules of the kidney alone, which latter in urine cannot be differentiated, the inflammation does not necessarily need to be severe.

When we have a pronounced inflammation of

the kidney, we will find with the cuboidal epithelium from the convoluted tubules small columnar epithelium from the straight collecting tubules, and when these are present in large numbers, the nephritis is usually quite intense, even without the presence of casts, since they would tend to show that not only the cortical, but also the pyramidal substance of the kidney is affected. The presence of casts, especially in large numbers, is always an indication of a rather serious condition, and the sizes as well as the numbers of the casts will help us to determine the extent of the lesion and the probability of a favorable or unfavorable outcome. True casts are never present in the urine without puscorpuscles and epithelium, and if formations resembling casts are seen without the presence of puscorpuscles, it is practically certain that they are not true casts. Mucous casts or cylindroids can easily be mistaken for hyaline casts, and conglomerations of micrococci upon cylindroids for granular casts. As long as a few small and medium-sized casts, coming from the narrow and convoluted tubules, only are seen, so long the nephritis is comparatively mild and a favorable termination quite possible, but as soon as large casts from the straight collecting tubules are found with the others, the prognosis is doubtful and the case an intense one. Fatty casts in large numbers are evidence of a secondary fatty degeneration of the kidney, as seen in the so-called large white kidney, while waxy casts indicate a waxy or amyloid degeneration of the kidney and are never found in numbers, except in the most intense chronic inflammations in constitutional diseases, such as tuberculosis and syphilis.

Whenever a destructive process, even if only slight, exists, we will find, besides the other features mentioned, connective-tissue shreds. These shreds are the larger and the more numerous, the more pronounced the destructive changes, and consist of variously sized, irregular, wavy fibers of a moderately high degree of refraction. They must be especially differentiated from mucus threads, which latter are found even in perfectly normal urine, although increased in every inflammation, and are pale, more or less straight fibers of no special degree of refraction. Connective-tissue shreds are seen in small numbers in cirrhosis of the kidney, in larger numbers in atrophy. They are quite abundant in suppurative nephritis, pyonephrosis, together with numerous puscorpuscles and epithelium from both the convoluted and straight collecting tubules.

Although all the features just enumerated will allow us to form a very fair opinion of the functional condition of the kidney, our knowledge of the condition of the patient can be considerably increased by a study of the puscorpuscles, by means of which a good idea can be formed of the constitution of the patient at the time of the examination. As long ago as 1879, Carl Heitzmann first brought out this subject of the constitution, the determination of which is not at all difficult. All puscorpuscles are granular, the granules being a part of the protoplasm, and this protoplasm the living matter. Does it not stand to reason that the more living matter, the better the constitution of the patient and

the easier he will be able to withstand the inroads of the inflammation, while the less living matter, the worse the constitution? The more living matter we have in the puscorpuscles, the more coarsely granular and highly refractive they are, the less living matter, the more finely granular. The more finely granular, the easier it is to see the nucleus in the puscorpuscles, and the larger the number of pale, finely granular nucleated corpuscles, the more the constitution is impaired. We must, however, always remember that secondary changes can take place in the puscorpuscles which will make them pale, and yet the constitution be quite good. Such changes are especially common with a low specific gravity of the urine and are due to an inhibition of the watery constituent of the urine, but it is easy to tell the difference between hydropic puscorpuscles and nonhydropic, pale, finely granular corpuscles, the nuclei being, as a rule, large and indistinct or entirely absent in the former; quite distinct, although pale, in the latter.

A CASE OF SEVERE DERMATITIS FOLLOWING THE USE OF MERCURIAL OINTMENT

By LAWRENCE E. HOLMES, M. D.,

of Biltmore, Asheville, N. C.

Patient was a negress, 27 years old. For a slight enlargement, with tenderness, of the cervical lymphatic glands, following a "sore throat," which she had had some weeks previously, I gave her a prescription for equal parts of belladonna and mercurial ointment, to be applied by rubbing in at night over the enlarged glands, leaving a thin layer of the ointment over the affected area during the night. This was on a Saturday; I saw her again on Monday. (She said that on the previous day the skin was somewhat irritated, but she had applied the ointment in the evening.) The neck, posteriorly, as well as anteriorly, was covered with a minute vesicular eruption, which extended downward in front over the chest as far as the mammæ, and on the right side over the shoulder to the axilla. The whole area covered by the eruption was of a dark reddish hue; the tissues were tense and edematous, and tender on pressure. The face was "puffy," the lips and eyelids swollen, and the eyes watering freely. The swelling was most marked in the neck, which as a consequence was stiff. There was no salivation; the throat and tongue were clear, and the patient did not feel unwell, except from the discomfort resulting from the local condition. The local subjective symptoms were very slight, and there were no constitutional symptoms. A sedative lotion was given for local use, and a saline purge internally. The following day the vesicles had disappeared from the neck, but an eruption, similar in character, had appeared on the inner side of the lower part of the right thigh and knee. The neck, chest and shoulder were still swollen, indurated and tender, though slightly less than on the previous day. The next day the condition had greatly improved; the eruption, with its associated swelling, redness and tenderness had disappeared, the only sign of its previous presence being a certain amount of scaling.

In the absence of any other cause, the condition can be explained only as the result of an unusual idiosyncrasy for mercury, only two applications of the ointment having been made.

In connection with this case I might refer to one of a somewhat similar nature which I saw in dispensary practice at the Episcopal Hospital in Philadel-

phia a few years ago. It was that of a young man who had received a slight laceration of the thumb. A piece of gauze, wrung out in a solution of bichloride of mercury (1-2000) was applied as a dressing; a day or two later this was renewed. When he returned, a day or so afterward, the skin of the thumb was irritated, a vesicular eruption making its appearance. After this no more bichloride of mercury was used in the dressing, boric acid being used instead, but, in spite of this, the dermatitis gradually spread till the whole hand and forearm were affected, and all the superficial skin below the elbow finally separated, large vesicles and blebs forming before the separation occurred; the appearance of the hand and forearm resembling very strongly the condition seen when the skin separates after a burn or scald. This case, also, can be explained only as the result of a very pronounced susceptibility to the influence of mercury. There were no constitutional symptoms.

JOURNAL DES PRATICIENS.

August 9, 1902. (16me. Année, No. 32.)

1. Hemorrhage of the Circular Sinus. MAYGRIER.
2. Re-education in the Treatment of Sciatica. P. E. LEVY.
3. The Separation of the Urine from Both Kidneys. GEORGES LUYLS.

1.—Hemorrhage of the circular sinus, which surrounds the placenta, is not frequent. The condition is not, as a rule, grave. Maygrier reports several such cases. The diagnosis can usually be made only after labor. The treatment of the condition is absolute rest, disinfection and stimulation. [M. O.]

2.—The pain in sciatica is partly physiological, partly psychical. In treating the former Lévy gave his patients quinine; for the latter he used suggestion. He persuaded them that they could soon sit up, stand and finally walk. Rest in bed is necessary, but the patients must move at times, gradually increasing their exercise. Thus recovery follows re-education in movement. This he calls functional therapeutics. [M. O.]

August 16, 1902. (16me. Année, No. 33.)

1. Gout. BOULOUMIE.
2. Epidural Injections in the Treatment of Reflex Anuria. BERGOUIGNAN.
3. The Differential Diagnosis between Organic and Hysterical Hemiplegia. BABINSKI.

1.—Will be abstracted when concluded.

2.—A woman of 33, with locomotor ataxia, had frequent inclination to urinate, day and night, with painful crises, yet could pass but a few drops of urine at a time. Upon epidural injections of one cc. of a 2% cocaine solution the pain gradually decreased, and urination became possible. Six months later symptoms recurred, but again disappeared under epidural injections of cocaine. Before giving this treatment, the physician should decide whether the cause of this reflex anuria is not hysteria. [M. O.]

3.—Babinski reports the case of a woman of 19, with right-sided hemiplegia, developing 4 months after labor. There was distinct right-sided facial paralysis, of central origin, since electrical contractility was normal and the muscles were flabby. Finally the difference in gait, foot-clonus, plantar reflex, etc., confirmed the diagnosis of organic hemiplegia, in spite of the young age of the patient, and the absence of syphilis, heart trouble or other causes. [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8

VOL. X. NO. 21

NOVEMBER 22, 1902

\$5.00 PER ANNUM

The "Journal" Laboratory.—We present to-day the first of a series of reports, prepared under the auspices of The Philadelphia Medical Journal Laboratory. It is intended that the contributions shall appear at convenient intervals and embody information of use to practising physicians. Every effort will be made to have the statements accurate and timely, and to express them in language as free from technicalities as is consistent with precision. The work will in all cases originate in the laboratory. While suggestions for investigations may be accepted, commercial analyses will not be undertaken.

The Abuse of Hypnotics in Infancy.—Throughout the entire year the busy physician is called upon to quiet crying infants. Mothers, especially among the poor, who have tried the different sedatives which are so easily bought nowadays, finally consult the doctor upon how best to quiet the baby, who now hardly is still a moment. In almost all instances, the child has been given some anodyne, soothing syrup, or other opiate, more or less regularly during a long period of time before the physician sees it. Its condition has by that time entirely changed. It is impossible to find the original cause of the crying, since the baby now frets continually until a few more drops of its narcotic mixture are given. Then it drops off into a dull sleep, soon waking, as the drug wears off, to continue its shrill crying. Very little questioning suffices to elicit the history that someone, generally the mother, tired of hearing the constant crying, has been in the habit of drugging the child. If acute illness should develop in such an infant, the prognosis would at best be very unfavorable. While infants may need a sedative rarely, when the cause of the pain has been found and no other remedy is possible, in most cases infants cry from colic, due mainly to disturbance in the stomach or intestines. In such cases a few of the old-fashioned, harmless preparations, such as calomel, sodamint, oleum foeniculi, etc., together with correction of any error in the child's diet, are sufficient to overcome the condition.

In their anxiety to quiet the baby, some mothers fall into drugging it in ignorance of the harm they are causing. In other cases the custom is taught by parents, neighbors, friends or physicians. For it is a fact, unfortunately, that there are physicians who advise paregoric for crying infants, either without making an attempt to seek the cause, or when no cause can be found to explain the crying. The other remedies in constant use, anodynes, soothing syrups, and the like, also contain some opium, and any of these soon cause the habit. Habitually drugged infants frequently develop marasmus, as the original cause of the crying is usually some gastro-intestinal derangement. As this is in no manner affected by the narcotic, it becomes chronic. Gastro-intestinal symptoms grow more marked, the baby loses weight, and a peculiar shrill, high-pitched cry is noted. It develops tremors of the arms, hands or fingers, which may become general. Finally, marasmus and death from malnutrition follow.

This harmful practice, fostered by the druggists, the child's relatives and some physicians, is widespread. The habit is most noticed by physicians during the summer months, when gastro-intestinal disturbances are most prone to occur. The mother tries for a time to combat illness with home remedies, and when the harm is done, the opiate having been given during some weeks, the really ill infant is brought to the hospital for treatment. Then, when death occurs, as results in most of these cases in very young infants, the hospital or dispensary is blamed for not having saved the child's life. Among all the evils to which the infants of the lower classes are subjected, this is one of the worst. When this is superimposed upon an unclean, insufficient food, administered too frequently, there is no wonder that death soon intervenes.

Hemorrhagic Cerebrospinal Fluid.—The value of lumbar puncture in diagnosis is not uncertain. Much is being written on the composition of this fluid in various diseased conditions, particularly concerning the character of the cells contained in it. G. Milian (*Gaz. Heb. de Méd. et de Chirur.*, August

7, 1902) presents a study of hemorrhagic cerebrospinal fluid.

There are three conditions in which this fluid may be blood-stained; first, if the needle, in passing through the skin and the muscles of the back, pierces a vein; second, if the needle pierces a vein in the pia of the cord; and, third, if there is a true hemorrhage into the subarachnoid space from fracture of the skull or from central hemorrhage. The distinction between these three forms of hemorrhagic cerebrospinal fluid is made by the fact that blood coming directly from the vessels at the time of puncture coagulates. In examining the three tubes into which the cerebrospinal fluid should be drawn, if the hemorrhage is accidental, numerous flocculi of fibrin may be seen swimming in the fluid if the blood comes from a vein in the tissues of the back; while, if it comes from the pial veins of the cord, a good-sized clot will form in the bottom of the tube. When there is a true intra-arachnoid hemorrhage, the blood is not coagulable.

The color of the cerebrospinal fluid, when it contains blood, may vary from yellowish to a decided red. This depends upon the amount of hemorrhage, its seat and its age. A decided red tint is seen when the hemorrhage is abundant, as it is after severe traumatism and in cortical and ventricular cerebral hemorrhages. The effusions are absorbed with great rapidity, so that the color of the fluid diminishes progressively. Bright red is the only pathognomonic color; the other colors are of diagnostic value only when microscopical examination shows the presence of erythrocytes and leukocytes. A study of the leukocytes in the cerebrospinal fluid shows that early in the hemorrhage these cells are present in the same proportions that they are found in normal blood. As the hemorrhage is absorbed, however, a lymphocytosis is demonstrable. The occurrence of infection is indicated when the polymorphonuclear cells are found increased up to seventy, eighty or ninety per cent. After the erythrocytes have settled to the bottom of the tube, the supernatant fluid is sometimes clear and sometimes yellowish, greenish-yellow, rose or bright red.

The Diagnostic Value of Hemorrhagic Cerebrospinal Fluid.—Marcel Boutier (*Paris Thesis*, 1901-1902, No. 55, *Gaz. Heb. de Méd. et de Chirur.*, July 27, 1902) has found that in doubtful cases of cerebral disease lumbar puncture may be of great service to the clinician by showing that the cerebrospinal fluid contains blood, the elements of which may be recognized by the microscope. This is of particular value in the diagnosis of fracture of the skull, although the absence of blood from the cerebrospinal

fluid does not serve positively to exclude fracture. If the hemorrhage is small in amount, no blood may be found in the fluid withdrawn at the operation. Albert Milliet (*Paris Thesis*, 1901-1902, No. 397, *Gaz. Heb. de Méd. et de Chirur.*, August 28, 1902) believes that the coloration of the cerebrospinal fluid by blood is a certain sign of hemorrhage of the venous axis. It seems to us as though in this procedure we might find a satisfactory way of differentiating between coma due to cerebral hemorrhage or to fracture of the skull, on the one hand, and coma due to uremic encephalopathy, on the other hand. This differentiation is by no means an easy one, and a patient with Bright's disease may have a cerebral hemorrhage or a fracture of the skull, as has been shown by Lloyd (*Proceedings of the Philadelphia County Medical Society*, October, 1902) and Riesman (*Ibid*). If the patient is comatose, the operation will not be painful, and if strict asepsis is observed no danger of infection will be brought to the patient.

"Isolation as is Isolation" is the method of the Havana Sanitary authorities for the treatment of infectious disease. Indeed, they are so proud of their system that they do not hesitate to receive cases of yellow fever into the city itself. When a ship, say from Vera Cruz, arrives with two or three cases of yellow fever on board, it is not anchored at some distance from the city, and the miserable passengers and crew compelled to take all the risks of becoming victims of the disease and gradually dying one by one. On the contrary, the Board of Health sends its stretchers to the ship, the patients are removed *under mosquito nettings* to the observation or yellow fever hospital, the ship is fumigated, the passengers observed for a time, and finally discharged. So satisfactory has this method been that one of the Sanitary officers declares that yellow fever has been practically stamped out in Cuba, because it is not endemic on the island, and Havana was formerly the chief point of reception and distribution.

If a case of relapsing fever is discovered—and one was found recently in a sailors' boarding-house in Havana—the patient is removed to the contagious hospital and isolated, while at the same time the most energetic war of extermination is waged against the miserable bed-bugs in that particular boarding-house until every one is destroyed, and thus, to the misfortune of the scientific investigation of relapsing fever, but to the great good of the community, the case of the disease remains unique.

Too much credit cannot be given to the able and energetic men who have control of the sanitation

of the city of Havana. Not only do the city and the Island of Cuba profit, but Cuba has ceased to be a source of menace to the entire southern coast of the United States, and it behooves us as Americans, and, as we fondly believe, the most advanced Americans, rather to copy that which they have of good, and learn improved methods from them, than to remain fatuously indifferent to all methods not inaugurated by ourselves.

An Observation Hospital for Infectious Diseases.

—The Cubans may have the intellectual disadvantages ascribed to them by a certain American Consul at Havana, although we doubt it. Since the withdrawal of the American administration Cuba may be retrograding, howbeit the postal service may cost it less, but there are certain things in which the benighted Cubans can give any or all the cities in the United States some valuable advice and instruction, and one of these is the management of infectious disease. It may comfort the Sanitary Commissions of various cities of the United States to reflect that the subject of infectious disease is so much more urgent in the city of Havana than it is elsewhere, that the inhabitants are obliged to take these precautions. (Curiously enough, under the Spanish rule these precautions were not taken; the Cubans evidently order these things better.) And the comfort becomes very cold when we remember the epidemics of smallpox that occurred in a certain number of the larger American cities last year, the prevalence of typhoid fever in certain other American cities, and of the endemic nature of diphtheria elsewhere. The particular point to which we wish to call attention is the detention hospital in force in Havana. This is a place wherein all cases of suspected infectious disease are taken and isolated, not only from the community, but also from each other, until the nature of the malady is definitely known. Then when the diagnosis is clear, they are transferred, if necessary, to the special hospital for their disease, or sent back to their homes if the suspicion is proved to be unfounded. What more admirable system could be employed? How much better it would be if some such plan could be devised for the cities of America, and the danger of sending a case with a mistaken diagnosis to the Municipal Hospital rendered impossible for all time. It is practically the method in vogue for insane patients, and yet the danger of sending a sane or peculiar individual to the insane asylum is far less serious to himself and to the community than that of sending a person with some mild infectious process to a smallpox ward.

Coroner's Science.—A coroner of Philadelphia has once more given a reason why his office should cease to exist. When Judge Yerkes, of Bucks County, Pennsylvania, declared from the bench some years ago that the coroner's office should be abolished, he gave utterance to an obvious truth. Many physicians have long regarded the office as an anachronism, and as little less than an obstacle both to justice and to science. As filled and conducted in most counties, it usually has for its occupant a very ignorant man, and one who is soon swelled with a little brief authority out of all resemblance to his very ordinary self. The office has been held up to ridicule ever since the days of Shakespeare.

The business of a coroner is, or should be, simply to find, or to try to find, the cause of death. It is not his function to deliver lectures on pathology. When he presumes to pronounce, with the authority of a judge and the solemnity of an oracle, what men are to believe or not to believe in medical science, he makes of himself a spectacle more ridiculous than a Dogberry or a Verges.

Philadelphia has an individual at present in the coroner's office who eradicates hydrophobia by his official fiat. Acting Coroner Hammond recently announced that "there is no such thing as hydrophobia," and jauntily said that the physician who issues a certificate assigning death to such a cause "should be given instructions from the coroner's office." This is in accord with the "teachings" of the Philadelphia coroner's office for some years past. That the medical profession of Philadelphia is to enjoy the inestimable advantage of receiving instruction from Mr. Hammond, of the coroner's office, has been considered a sufficiently important fact to be announced in the newspapers.

This city is peculiarly unfortunate in the fact that it is so often and so flagrantly misrepresented by its public servants. Philadelphia is, and long has been, a great medical center—the seat of great medical schools, laboratories, hospitals, journals and publishing houses; the home of great medical scientists, practitioners, teachers, writers and investigators—and yet Philadelphia has a blustering and medically uneducated coroner who announces to the world that there is no such thing as hydrophobia. Shade of Pasteur!

The Molineux Case.—The fallibility of legal processes and legal judgments has never been so conspicuously shown as in the case of Molineux. Medical experts especially should not fail to note the law's self-contradictions in this case. After a trial which cost hundreds of thousands of dollars, Moli-

neux was convicted. He was sentenced to death and transferred to that chamber of horrors—the death-cell at Sing Sing. After a due process of re-argument the judgment was reversed. The prisoner was again put on trial for his life. Most of the evidence on which he had been convicted was rigorously excluded as irrelevant and unjustifiable. After a short trial he was acquitted, and from being a condemned murderer, became an innocent and badly used citizen.

We have no language to express our sense of perplexity at this remarkable transformation scene. Our wonder is extreme that this unfortunate man could both be condemned and acquitted by practically the same legal processes. This wonder must be shared by many members of the medical profession, especially by those experts who are so constantly accused by the lawyers of holding contradictory opinions on questions of medico-legal science. That a man should be adjudged at one trial guilty and at another trial innocent, is an incongruity that surpasses all the alleged inconsistencies of medical expert testimony.

We commend our legal friends hereafter, when they indulge in criticism of medical experts, to reflect on the case of Molineux, the man who was dragged to the cell of the condemned after a trial at bar which the highest court in the State of New York practically characterized as a travesty of justice.

Mother Eddy Runs to Cover.—It is doubtless a good sign of the power of public opinion that the wily old woman who dominates the Christian Scientists has decided to beat a retreat. Mrs. Eddy, with the grand style of a pontifex maximus, forbids her followers any longer to treat “infectious” diseases. The prospects of that law-suit at White Plains, and the memory of the recent death of a victim in Washington, are evidently not relished by the supreme prophetess.

We do not suppose for a moment that the great majority of Mrs. Eddy’s dupes will detect the glaring inconsistency of her position. If “infectious” diseases are not to be cured by prayer, the world at large would like to know why not. If any disease needs curing in these days, it is an infectious disease. If Mrs. Eddy cannot cure such a disease, she is of about as much use as a tin prophetess on wheels. Her religious devotees will be loath to believe that the power of the Almighty, as represented by Mrs. Eddy, stops short at infectious diseases. Yet this is the logic of the situation.

Of course, rational men do not need such a course of argument to convince them that Mrs. Eddy’s

“Christian Science” is a delusion. The practical question with such men is to control this vulgar superstition, and to penalize its “practitioners” for their death-dealing customs. This should be done simply for the protection of the public, not for the conversion of the Christian Scientists. Their conversion is a matter of little concern. Most of them, if turned from their present belief, would soon lapse into some other equally absurd.

Insanity in Jerusalem.—The *Journal of Mental Science*, for October, publishes a remarkable story from a medical correspondent in Jerusalem. This writer, Dr. Wheeler, states that he has seen an insane patient, almost nude, chained to the altar in the Greek Orthodox church of St. George. The lunatic was supposed to be kept there for *forty days*, undergoing “treatment.”

The editor of the *Journal*, commenting on this barbarity, attributes it to the old belief that insanity is caused by evil spirits. This belief in former days led to all sorts of maltreatment of the insane throughout Christendom, but it is difficult to realize that such a practice can exist even in the East at the present day. The picture of an almost nude lunatic chained for forty days and nights to the altar of an “orthodox” church, stirs up the *Journal of Mental Science* to an indignant desire to protest. It is in strange contrast to the treatment of insanity by the Mohammedans, who established the first hospitals for the insane in Europe (in Spain), and who recognized insanity as a disease, while their Christian neighbors were still regarding it as due to demon-possession.

Elizabeth Cady Stanton and Her Brain.—We congratulate Professor Wilder, of Cornell University, that he is to have the privilege of adding to his interesting collection the brain of the late Mrs. Stanton. For some eminent persons we should think it might help to rob death of some of its terrors to know that their brains were to grace such a collection as that of Professor Wilder. To be sure, Professor Wilder has some bad ones—such as the brains of noted murderers and other criminals—but he has also some very excellent ones, and in order to gain admission to that select company it is to be supposed that a man or woman must have had some extraordinary quality.

The late Mrs. Stanton was, in truth, a very unusual woman, and her brain will be worth preserving. No man in the world is better able to do it justice than Professor Burt G. Wilder. He has made many noteworthy contributions to the study of the anatomy of the brain, and the scientific world

will await with interest his report on the cerebrum of the great champion of woman's rights. Mrs. Stanton herself evidently thought that among woman's rights was the right to contribute in a practical way to the science of brain morphology.

Current Comment.

THE COUVADE IN MEDIÆVAL VERSE.

In our issue for July 8, 1899, p. 72, and again in that for December 23, 1899, p. 943, we referred to that curious custom once prevalent in Corsica, the Indies, both Americas, Spain and southern France, in which, as Diodorus Siculus says, the husband takes to his bed after the wife's accouchement, while she gets up and about. The *Lancet* for October 18, cites a passage from the twelfth century French romance, Aucassin and Nicolette, quoting Andrew Lang's translation, as follows: "When Aucassin, eloping with Nicolette, after a tempestuous voyage landed in the marvellous realm of Torelore, he asked for the king and was told that he was in childbed, while the queen was away with the army. So—

'Aucassin, the courteous knight,
To the chamber went forthright;
To the bed with linen dight,
Even where the king was laid.
There he stood by him and said,
"Fool, what mak'st thou here abed?"
Quoth the king, "I am brought to bed
Of a fair son; and anon
When my month is over and gone,
And my healing fairly done,
To the Minster will I fare
And will do my churching there,
As my father did repair."'

—*The New York Medical Journal.*

A SOLDIER'S VIEW OF MEDICAL SCIENCE.

Lord Roberts, at St. George's Hospital on Thursday last, took the opportunity of testifying to the good services rendered by science to the soldier. He showed that to none was gratitude more due than to those who seek to secure the best conditions for the maintenance of health in camp and quarters, and are ever ready to do their utmost to relieve the sick and tend the wounded. Modern improvements had done much, and these had been supplemented by personal devotion. Lord Roberts said he had strong admiration for the medical profession, and sympathy with the work of doctors, and in this he spoke the sentiment of the Army he had the honor to command.

—*Medical Press and Circular.*

Correspondence.

LIABILITY OF MILK TO TRANSMIT TUBERCULOSIS.

By GEORGE M. KOBER, M. D.,
of Washington, D. C.

To the Editor of the *Philadelphia Medical Journal*:

In your editorial on page 653 of the *Journal*, Nov. 8, 1902, in speaking of the liability of milk to transmit tuberculosis, you say that Dr. Kober does not take strong ground, but gives numerous suggestive cases... Dr. Kober's view seems to be indicated by the title of one of the chapters, "Milk acquires infective properties generally only after it leaves the udder of the animal."

You will observe that under that heading I have dis-

cussed the so-called milk-borne diseases, such as typhoid fever, cholera, scarlet fever and diphtheria, the germs of which gain access to the milk after it leaves the udder of the animal, while the subject of tuberculosis is disposed of in the chapter on page 158, which has for its heading: "Milk itself may be morbid as the product of a diseased animal." I have devoted about 15 pages to the presentation of evidence in favor of the transmission of bovine tuberculosis, and my personal views are expressed on page 160 as follows:

"When we recall the fact that the last three observers in their feeding experiments were especially impressed with the resulting tuberculous lesions of the intestinal mucosa, mesenteric glands and liver; when we next consider the large mortality of children under 5 years from primary tubercular ulceration of the intestine, tubercular peritonitis and tabes mesenterica, and the fact that the food of these children consists largely of unboiled milk, the chain of evidence seems well-nigh complete, but has been materially strengthened by a number of clinical cases, of which we furnish the following abstracts."

Your final paragraph may also lead the reader to conclude that I have joined chemical and technical matter with my discussion of tuberculosis and milk-borne diseases, which, of course, is not the case, nor am I aware, that my monograph affords any basis for your concluding sentence.

[We regret that, influenced by the prominent titles of one of the chapters, we inferred that Dr. Kober is not as strong a believer in the communicability of bovine tuberculosis to human beings as we are ourselves, and we are pleased to be corrected on this point. The final sentences of the editorial are merely expressions of opinion developed by the pamphlet, and Dr. Kober is, of course, not responsible for them.—Editor—P. M. J.]

A CORRECTION.

By ROBERT W. JOHNSON, M. D.,
of Baltimore.

To the Editor of the *Philadelphia Medical Journal*:

Permit me to correct an error I made in your number of October 25, 1902, claiming priority in temporary closure of the carotid in operations on the head and neck, over Dr. Crile, of Cleveland, Ohio.

In an article published in the *Cleveland Medical Gazette*, March, 1897, and referred to me by Dr. Crile, I find that he practised temporary closure of the carotids nearly a year before I proposed it. This, of course, did away with any claim of mine over him and *a fortiori* over any predecessor of his, as suggested by Dr. Dinkelspiel in your number of November 8, 1902.

A CUSTOM OF THE FILIPINOS.

By T. H. WEISENBURG, M. D.,
of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

While serving in the Philippines as a surgeon in the U. S. Army, I had opportunity at various times to examine natives for different conditions. I was on duty at a military prison, where there were over 300 native prisoners, and again served with the Macabebe scouts. Besides, I examined natives at other places, making altogether nearly a thousand examinations, and not in a single instance did I detect a case of hemorrhoids.

The ordinary Filipino will almost invariably, after defecation, wash the parts with cold water. In only one case did I see hemorrhoids—in a judge of the Mestizo, or better class, who was educated and had acquired the customs of the Spaniards.

The cause of this is probably threefold: (1) The immediate response to the calls of nature; (2) the simple

character of the food, mainly rice and fish; (3) the use of water directly on the parts after defecation.

This is interesting in connection with the fact that Professor J. Wm. White puts great stress on the application of water both as a preventive and as an aid in the cure of this condition.

Reviews.

Photographic Atlas of Diseases of the Skin. By George Henry Fox, A. M., M. D., Professor of Diseases of the Skin, College of Physicians and Surgeons, New York, etc. J. B. Lippincott Company, Philadelphia and London. Parts X, XI, XII, XIII, XIV, XV, and XVI.

These seven parts, which complete the atlas, contain together 35 plates, eight of which present 2, 2-3 and 2-4 illustrations. Part X gives good representations of acne rosacea of average type, psoriasis of diffused character, pityriasis rubra pilaris and keratosis, and a fair one of the malculo-papular eruption (dermatitis medicamentosa) frequently seen resulting from the administration of balsam of copaiba. In Part XI are found pictures of dermatitis herpetiformis, hairy nevus, ulcerating syphiloderm of the scalp, squamous eczema of the legs, and 2 of atrophy of the skin. With the exception of that of dermatitis herpetiformis, which is a poor selection, as it only shows neck and face, they are all up to the usual high standard. That of eczema is particularly excellent. The admirable result of treatment in the case of hairy nevus, as shown in the accompanying cuts, illustrates what can be done with the "electric needle" in skilled hands. In Part XII, those of papular erythema, pityriasis rubra pilaris, and ringworm (3 illustrations) are good clinical examples, while that of vascular nevus is sufficiently satisfactory. The one of annular erythema is not up to the others, as the eruption shown—a single patch—is too limited, and as thus pictured might give rise to differences of opinion even among dermatologists. The selections and representations in Part XIII—pustular eczema (2 illustrations), erysipelas of the face, hereditary syphilis (2 illustrations), elephantiasis, and exanthema (illustrations)—are, excepting possibly the last, fully up to the requirements and typical clinical pictures. In Part XIV an extensive psoriasis, favus (2 illustrations), dermatitis exfoliativa, are well shown, the last being unusually clear and excellent. The 5 plates in Part XV, except that of the rodent ulcer, which is not as clear cut as the others, are good representations, depicting eczema of the hand (4 illustrations), syphilitic eruptions of the hand (4 illustrations), acne rosacea of the extreme hypertrophied type, and one of linear nevus. Of the plates in Part XVI, those of urticaria and seborrhea of the face are especially commendable. The others contained in this part are of bullous erythema, scabies, dermatitis venenata, steatoma and milium.

Taking the plates of these 7 numbers together they can be said to keep well up to the excellence of those in the parts which have preceded, and to give satisfactory representations which both students and practitioners, lacking clinical opportunities, will find of distinct help. The text, as in previous numbers, is in Dr. Fox's positive and forceful style. [H. W. S.]

Vari Metodi Anestesi e Loro Indicazioni. Manuale Teorico-Pratico per Medici E Studenti. Dott. Giovanni Palleroni, 1° assistente alla Clinica Chirurgica Generale della R. Università di Palermo, Professore pareggiato di Patologia speciale chirurgica dimostrativa e propedeutica clinica chirurgica. Napoli Casa Editrice Cav. Dott. V. Pasquale. R. Università.

This work of Dr. Giovanni Palleroni, of the University of Palermo, on the various methods of anesthesia and their indications is well deserving of the praise of the reviewer. The author has divided his comprehensive work into three general parts, the first of which is devoted to General Anesthesia, the second to Local Anesthesia, and the third to Spinal Anesthesia. He prefaces his work with a history of anesthesia and of the general and local anesthetics. In

Part 1, there is an excellent description of the chemistry and pharmacology of chloroform, a description of the technique of the narcosis, the accidents which may occur during this state, and the postoperative disturbances which may be directly traceable to the action of the chloroform. Ether is discussed with the same degree of fulness, and the importance of the proper technique of inducing anesthesia is fully emphasized. In the brief description of the use of nitrous oxide gas and the combinations of this with ether the author does not speak highly of the practical utility of the combined anesthesia. In this opinion, however, he is not in accord with a large number of our American surgeons. Besides the discussion of anesthesia with the bromide of ethyl, the chloride of ethyl and a number of known but seldom used general anesthetics, the author has included the action of a number of the other drugs, such as, bisulphate of carbon, keresolene, etc. In his discussion of the various admixtures which have been recommended for the production of general anesthesia he has painstakingly given space to some 21 combinations. Part II is devoted to Local Anesthesia and is most exhaustive in its scope. The third chapter on Spinal Anesthesia is a most presentable review of the technique, indications and contra-indications of this method up to the present writing. The bibliography appended to this volume is extensive and valuable. [T. L. C.]

Death and Sudden Death. By P. Brouardel and F. Lucas Benham. Second edition. 8vo., 329 pages and index. New York, William Wood & Co.

This is a unique treatise on a most important phase of medicolegal science. It is doubtful if any but Dr. Brouardel could give us such a book, for its preparation requires not only high scientific attainments, but long and large experience. No city in the world is likely to give so great a variety of experiences in violent and mysterious deaths as Paris, and Dr. Brouardel's office as Director of the Morgue has put him in the best position to utilize the material. Hence we have a long list of instances, all of them teaching some important lesson in medical jurisprudence and many of them interesting, and even fascinating, in the dramatic and mysterious details. The translation is in the main well done. It may be a matter of doubt whether the easy conversational style (the book is a reprint of lectures to a medical class) should have been so closely maintained, but possibly that is the author's wish. The Paris cases have been supplemented by numerous cases among English-speaking communities, and thus the value of the work to the student of medical jurisprudence has been enhanced. The methods of French communities are well shown in the following extract, which may go to prove that there are some things which are not ordered better in France.

"Until 1881 fetuses, expelled prematurely by abortion, were thrown into privies, dustbins, drains or onto dunghills. In 1864 Tardieu showed, in an excellent report, how immoral it was for such a state of things to exist. In 1881 M. Floquet, then Prefect of the Seine, issued an order prescribing the death of a fetus should be declared, and that it should be buried." The author then proceeds to describe a case which illustrated the need for such a rule, and states that the edict was opposed by the members of the medical profession, who declared that it would interfere with professional secrecy, from which view he differs strongly. We are also told that a box is placed at the office of each of the mayors of Paris, in which the fetus is deposited when declared, and from which it is removed and buried. Since 1881 the number of bodies thus deposited has increased annually, while the number thrown on refuse heaps has diminished.

The work does not take the place of systematic manuals on medical jurisprudence and toxicology, but is well adapted to supplement the existing works in that field. It is well printed and has a good index. There are no illustrations, but the text hardly needs any. The style as noted above is highly informal, reading in many places as if it is the slightly edited stenographic notes. The matter added by Dr. Benham is much more formal and is always indicated by enclosure in brackets, so that the reader can easily pick out the portion of the text furnished by Dr. Brouardel. The eminence of the author makes any utterance of his highly acceptable. [H. L.]

Laboratory of The Philadelphia Medical Journal.

In Charge of HENRY LEFFMANN, M. D.

of Philadelphia.

REPORT ON COMMERCIAL FORMS OF HYDROGEN DIOXIDE.

Hydrogen dioxide, often called hydrogen peroxide, is usually sold in a three-per-cent. aqueous solution. This proportion is equivalent to ten volumes of available oxygen. It keeps best when slightly acid, and hence the commercial forms are always in this condition. Attempts to furnish a solution notably stronger than three per cent. (which is the official limit) have not been very successful. It is difficult to avoid retaining some mineral matter in solution, but this should be less than 0.5 per cent. Under ordinary care the preparation should keep for some months with but little loss of active ingredient; indeed, as the dioxide is less volatile than water, good samples will often increase slightly in strength if the container is not tightly closed.

Analytical examinations in previous years by several investigators have shown that there is a liability to much irregularity in the quality of the hydrogen dioxide solution obtainable in drug stores, and it is, therefore, gratifying that a recent investigation has shown a much better state of affairs. For the purpose of this examination, a retailing druggist in this city was requested to secure a sample of each of the brands commonly used. These were furnished in the original packages and tested on the same day and under the same conditions. The brands were as follows: Oakland, McKesson & Robbins (pyrozone), Rosengarten & Son, Powers & Weightman, Wampole and American Peroxide and Chemical Co. All agreed closely with the pharmacopeia requirement of three per cent. of active ingredient. The acidity has a wider range. Using methyl-orange as an indicator, the amount of decinormal sodium hydroxide solution required for neutralization of 25 cc. ranges from 0.5 cc. to 1.5 cc. The U. S. P. requirement is that no more than 2.5 cc. should be needed. One brand, not mentioned in the above list, is slightly over-acidified. The residue left on evaporation is well within the pharmacopeia limit in all cases, and none gave evidence of the presence of barium. Qualitative tests showed that all samples contained small amounts of sulphates and chlorides. The keeping qualities seemed to be pretty good, none of the samples in the list showing any marked pressure on releasing the cork. One sample not named (the same that showed the high acidity) had a noticeable interior pressure. The selling prices show interesting contrasts, ranging from 32 cents for 4 ounces to 25 cents per pound.

Cysts of the Upper Jaw.—W. Lindt (*Correspondenzblatt für Schweizer Aerzte*, July 1 and 15, 1902) has recently reported in detail the case-histories of 5 patients with periodontal cysts, cysts which form as granulomata of the roots of the teeth. They are not follicular in character. As the cyst enlarges, it causes necrosis of the supra-maxillary bone, and may reach the antrum of Highmore. In 2 cases there was much purulent, offensive nasal secretion; in 3 there was suppuration at the root of a tooth. Operation brought the cysts to light. Histological descriptions of them are given. The diagnosis is sometimes exceedingly difficult.

[M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Society Meetings Next Week.—The following societies will meet next week at the College of Physicians, Philadelphia, at 8.15 P. M.; Tuesday evening, November 25, Neurological Society, and Wednesday evening, November 26, Philadelphia County Medical Society.

Almshouse, Insane Hospital and Municipal Hospital.—It has been rumored that the Bingham estate, consisting of 251 acres in the Fortieth Ward, has been purchased by the city to be used for the erection of a new insane hospital, municipal hospital and almshouse.

Pathological Society.—The annual exhibition meeting will be held December 11, in the Mütter Museum of the College of Physicians, Philadelphia. There will be a large number of gross specimens especially illustrative of surgical pathology, and microscopical displays of a series of slides illustrative of special branches. The committee having the meeting in charge consists of Drs. J. D. Steele, W. W. Babcock and J. M. Cruice.

Infectious Diseases in Pennsylvania.—During the week ending November 15, there were 3 cases of smallpox reported with no deaths, 60 cases of diphtheria with 4 deaths, 81 cases of scarlet fever with one death, and 148 cases of typhoid fever with 10 deaths. This is an increase only in the cases of diphtheria and typhoid fever. Of the 3 smallpox cases, one occurred in the Seventeenth Ward, one in the Twenty-second Ward and one in the Municipal Hospital, in a child convalescent from scarlet fever. The occurrence of the latter case emphasizes the need for a separate smallpox hospital, distinct from the wards in which other contagious diseases are treated.—Typhoid fever is prevalent in Lancaster, 9 cases having occurred in one block.—After having been closed for 3 weeks because of a diphtheria epidemic, the public schools of Roaring Spring were opened November 13. As 3 cases developed the next day, the Board of Health has ordered the schools to be closed until January 1.—Diphtheria has also caused the closing of the schools at Delano.—In Uniontown all schools have been closed on account of epidemics of scarlet and typhoid fevers and diphtheria. Over 75 pupils are reported to be ill from these diseases. Public buildings and schools are being disinfected, and strict measures are being taken to quarantine every case.

Lancaster General Hospital.—The new building, which will cost \$60,000, was recently begun. The hospital is 9 years old and treated 403 patients last year. It receives an annual appropriation of \$5,000 from the State. The new building will be modern and well equipped.

Delaware County Medical Society.—At the meeting held November 13, at the Old Rose Tree Inn, Media, Dr. D. Braden Kyle, of Jefferson Medical College, Philadelphia, read a paper on the after-influence of influenza. After the meeting there was a roast-pig dinner.

Mütter Lecture on Surgical Pathology, College of Physicians, Philadelphia.—The Mütter lecture for 1902, upon wounds by the implements of warfare, will be delivered by Major L. A. LaGarde, Surgeon, U. S. A., Tuesday, December 2, at 8 P. M., at the College of Physicians.

Bequests.—By the will of the late Eliza G. Landreth, \$47,000 are left to St. Luke's Hospital, New York City, the Episcopal Hospital, Philadelphia, and the West Philadelphia Hospital for Women.

NEW YORK AND NEW JERSEY.

The Lion Roared.—Last week a lion, in a play called "The Lion's Bride," being performed in Jersey City, roared when the bride appeared, because the Sultan had sentenced her to be eaten by the lion. An animal expert stated that the roars were caused by pain. On investigation it was found that electric wires were connected with the bottom of the cage, making the lion roar every time the current was turned on. The Society for Prevention of Cruelty to Animals has notified the manager that the electricity must be omitted, even if the lion refuses to roar.

New York State Medical Association.—At the recent meeting the following resolutions were adopted: Resolved

that the report of the committee appointed to confer with a committee representing the Medical Society of the State of New York for the purpose of devising a plan for the union of The New York State Medical Association and the Medical Society of the State of New York is hereby approved. Resolved that the plan presented at the joint session of the 2 committees by the committee representing this Association, whereby, "The New York State Medical Association and the Medical Society of the State of New York be re-constituted by an act of the Legislature into a State Medical Body to be known as the Medical Society of the State of New York, of which all members in good standing in both bodies shall be charter members, and the reconstituted State Medical Body shall be the representative in this State of the American Medical Association by virtue of the acceptance of the Constitution and By-Laws of the American Medical Association," is hereby accepted by The New York State Medical Association as an expression of our sincere desire for a union of the medical profession in this State. Resolved that the committee is hereby continued for the purpose of co-operating with any committee from the Medical Society of the State of New York, to secure a charter from the Legislature at its next session in 1903, which charter shall reconstitute the 2 State organizations into one State Body as set forth in the preceding resolution, but if the Medical Society of the State of New York shall fail to approve of such plan of union by a charter to be secured at the approaching session of the Legislature in 1903, then this committee shall be considered as discharged and the proposition of this Association withdrawn. Resolved that, in case this committee should find occasion to apply to the Legislature at its next session for the purpose of securing the said charter, it shall co-operate with the standing committee on Legislation of this Association.

Lectures on Consumption.—The Committee on the Prevention of Tuberculosis in New York City has arranged for the delivery of lectures at least once a month, in the United Charities Building, Fourth avenue and Twenty-second street. The lectures, which will cover various aspects of the disease, such as social conditions, cause and prevention, influence of climate, sanatoria, etc., will be of a popular nature, a means of giving instruction in the best methods of preventing the disease. The lectures are free to all. Among the lecturers are Drs. Huddleston, Biggs, Janeway, Knopf, Trudeau, Jacobi and Bryant.

Babies' Hospital, New York.—The new building of this institution, which was organized 15 years ago, has just been completed and is the first institution in the world devoted exclusively to babies. It is thoroughly well equipped.

National Association for the Study of Epilepsy.—At the annual meeting, held in New York City November 5 and 6, papers were read by Drs. Bullard, Boston; Jacobi and Meyer, New York; Spratling, Craig Colony; Moyer, Chicago; Wildermuth, Stuttgart, Germany; Morel, Belgium, and Park, Buffalo. Dr. Frederick Peterson, president of the association, in his address, said that there are 140,000 cases of this disease in the United States alone. Provision is made for the care and treatment of epilepsy in 19 States. In Europe, Asia and South America homes and colonies have also been established. Dr. Roswell Park discussed the surgical treatment of epilepsy. The following officers were elected for the ensuing year: President, Dr. Wharton Sinkler, Philadelphia; vice-president, Dr. William Osler, Baltimore; secretary and treasurer, Dr. W. P. Spratling, Craig Colony.

Dr. Lorenz in New York.—It has been announced that Dr. Adolf Lorenz, of Vienna, will operate on a number of poor children with congenital dislocation of the hip, in the New York State Hospital for the Care of Crippled and Deformed Children and the Hospital for the Ruptured and Crippled, early in December.

Smallpox in Camden, N. J.—After having been closed for 6 weeks, the Municipal Hospital was opened, November 12, to receive another case of smallpox. Three cases were reported in the hospital November 15. A few isolated cases of the disease have also been reported recently in several towns throughout New Jersey.

New York Eye and Ear Infirmary.—At the meeting held November 19 it was decided to discontinue the nose and throat department of the institution, owing to lack of

room and shortage of funds. The directors have come to this decision in spite of the fact that nearly 10,000 people were treated in this department last year. There has been a nose and throat department in this institution for over 30 years.

Typhoid Fever in Trenton.—For the week ending November 15 there were 14 cases of typhoid fever in the Mercer Hospital, 10 in St. Francis' Hospital and 4 in the McKinley Hospital. Physicians also report many suspicious cases in private practice, and an epidemic of the disease is feared.

Death-rate of New York City.—During 1901 the death-rate of the city of New York was 20 per 1000, as compared with 20.57 per 1000 in 1900. There were 70,720 deaths from all sources in 1901. Tuberculosis caused more deaths than any other disease, 9,839 deaths having been due to this in 1901. There were 80,735 births during the year, almost 1000 less than for the year before. It seems odd that it should have taken 10 months to compile the statistics of the New York Health Department for 1901.

WESTERN STATES.

The Plague in San Francisco.—During the month of October 7 cases occurred, all ending fatally. At the conference of State and Provincial Boards of Health of North America, held in New Haven, Conn., October 28 and 29, resolutions were passed advising the various State Boards of Health to consider the propriety of requesting the Surgeon-General of the United States Public Health and Marine-Hospital Service to arrange, at the earliest possible date, a joint conference for the purpose of eradicating the plague from the United States. Several boards of health have already called meetings for considering this subject, that of Maryland among others. Under the law creating the new U. S. P. H. and M.-H. Service, provision is made that the Surgeon-General may call a meeting of representatives of the several boards of health, upon the request of 5 States, to consider any subject which may be deemed of sufficient importance to call for such action. The probability of the disease already having spread outside of San Francisco would suggest that delay in action may endanger one or more States before the disease is checked. It has been stated by competent authorities that there are at least 2 years' work ahead for the eradication of the plague, as it now exists in San Francisco. It has been reported that Surgeon-General Wyman would call a conference of the boards of health of San Francisco and California, and their action is being awaited.

Rush Medical College.—Should the trustees of Rush Medical College raise the sum of \$1,000,000 before July 1, 1903, the trustees of the University of Chicago have agreed to receive the Medical School as an organic part of the University of Chicago. The trustees of Rush Medical College are confident that they shall raise the amount specified within the time required. This sum will be used for erecting new buildings and endowing the chairs of instruction. Rush Medical College was founded in 1837.

Dr. Lorenz in California.—Dr. Lorenz operated upon 2 children in the lecture hall of the Affiliated Colleges of the University of California, San Francisco, November 6, performing his bloodless operation for the cure of congenital hip disease in both cases. He then treated a case of double club-feet in an infant of 5 months, by moulding the feet into their normal position, and then putting them into plaster. The next day he operated upon 2 more cases of congenital dislocation of the hip and one of double club-feet at the Cooper Medical College.

The Advantages of Vaccination.—A few weeks ago the children of an Evanston household were taken with smallpox. They were sent home from school, and most of the pupils with whom they had been associated were promptly vaccinated. Against the orders of the health officers the infected children returned to school before the period of danger from infection had passed. Twenty-four cases of smallpox have now been discovered among the pupils of the school. According to the health commissioner not one of the pupils recently vaccinated is among the 24. It is impossible to mistake the significance of such a signal demonstration of the practical value and efficacy of vaccination.

Smallpox in Chicago.—There are now but 11 cases of

smallpox in the isolation hospital in Chicago, which has a population of 1,700,000, while Evanston, just north of Chicago, with a population of less than 20,000, now has 33 cases of smallpox quarantined in 12 houses. Since January 1, 1902, there have been 310 cases of smallpox discovered in the city of Chicago, none of which had ever been properly vaccinated. Of the total number, 4 died, 295 recovered and 11 are still in the hospital.

No Consumptives on Colorado Trains.—After December 1, invalids must show a certificate from a physician, stating that the bearer is free from contagious disease, before being allowed to board a train in Colorado. Should all the railroads adopt this scheme, passengers desiring relief from the continual presence of consumptives will be well protected.

Calumet Public Hospital, Calumet, Mich.—With money supplied by citizens, a public hospital to accommodate 25 patients will soon be erected.

University of California.—Dr. Jacques Loeb, of Chicago, has been appointed professor of physiology; Dr. Martin Fisher, of Chicago, instructor of physiology, and Dr. Charles G. Rogers, of Chicago, assistant in physiology. Dr. Loeb received his degree from the University of Strassburg in 1894. He is 43 years old.

Lutheran Hospital, La Crosse, Wis.—This new hospital, supported and erected by the Lutheran Synod of the Northwest, will be dedicated November 27. It has been in the process of construction for over a year and is one of the best equipped institutions in the West.

A Physician at Eighteen.—In June, 1904, a young man will be graduated from the Illinois College of Physicians, at the age of 18, after having voluntarily repeated his fourth year, in order that he might cover the ground more thoroughly. This young man will then be the youngest physician in the United States, the youngest man to have ever received a diploma from a medical school. He is a native of Eau Claire, Wis.

Death of Dr. Cook.—Dr. Edgar P. Cook, who was graduated from the Cleveland Medical College in 1854, died in Mendota, Ill., October 31, 1902, aged 69 years. In 1879 he was president of the Illinois State Medical Society, later, president of the La Salle County Medical Society, and of the North Central Illinois Medical Association; member of the American Medical Association, Association of Railway Surgeons, American Public Health Association and many other medical societies. He was a delegate to the Ninth International Congress in Washington, in 1887, and to the Tenth International Congress in Berlin, in 1890. He was for a number of years director of the Illinois Children's Home and Aid Society. Death was due to angina pectoris.

SOUTHERN STATES.

More Smallpox in Wilmington, Del.—Two more cases of smallpox were discovered in Wilmington, November 17, both in colored people. They were removed to the Emergency Hospital at Farnhurst. New cases continue to appear, in spite of all precautions taken by the health officials.

Dr. Walter Reed III.—Major Walter Reed, of the U. S. A. Medical Corps, the well-known bacteriologist who first demonstrated that mosquitoes conveyed the microbes of yellow fever, was operated upon for appendicitis at the General Hospital, Washington Barracks, Washington, D. C., November 17. His condition since the operation is reported as satisfactory.

International Sanitary Conference, Washington, D. C.—This conference, which was to have been held October 15 last, was postponed until December 2, at the suggestion of Surgeon-General Wyman, U. S. P. H. and M.-H. S., in order that the delegates to the conference might attend the meeting of the American Public Health Association, to be held in New Orleans, December 8. The State Department has notified all concerned that this change has been definitely decided upon. Great good is expected to result from this conference, in view of what has been done recently in Cuba and Porto Rico by the United States Government, and also in view of the sanitary resolutions adopted in the City of Mexico at the Second International Conference of the American States, all of which have had a potent influence in awakening new interest in the matter of public health

in the South and Central American countries. The object of this conference is to encourage friendly co-operation between the health organizations of the several Republics, in the matter of quarantine and sanitation. It will be sought to make quarantine an adequate protection against the introduction of disease from one country to another, making it at the same time so reasonable that it may be maintained with but little annoyance to commerce. It will also be sought to bring about such sanitation of seaport towns as will cause epidemic diseases to disappear therein, and make such diseases readily manageable and suppressible, in the event of their chance introduction. The program for the conference includes reports from delegates of each Republic, containing a summary of the sanitary and quarantine laws, a description of the quarantine stations and their management, the prevailing diseases, and the special danger to which each Republic is subjected from neighboring Republics. Quarantine, sanitation and communicable diseases will all be discussed. The United States will be represented by delegates from national, state and municipal health organizations.

Cambridge Hospital, Cambridge, Md.—The plans for this hospital, soon to be erected in East Cambridge, at a cost of \$30,000, provide 32 rooms for patients, without using the third floor.

National Academy of Sciences.—The annual fall session was held in Baltimore, November 11 and 12, under the presidency of Professor Alexander Agassiz, of Cambridge, Mass. Among the physicians present were Drs. H. C. Wood, Philadelphia; W. H. Brewer, New Haven; H. P. Bowditch, Boston; S. Weir Mitchell, Philadelphia; Ira Remsen and W. H. Welch, Baltimore. A reception was given in honor of the visiting delegates, November 12, by Drs. William Osler and W. H. Welch, of the Johns Hopkins Medical School, at the Maryland Club.

Georgetown Hospital, Georgetown, D. C.—Plans are being prepared for an addition to the building to be built next spring. The demands upon the institution have increased considerably, and the erection of an annex has become necessary in order to accommodate them.

American Public Health Association.—The Thirtieth annual meeting will be held at New Orleans, La., December 8 to 12, 1902. Among the subjects to be discussed are the pollution of public water-supplies; the disposal of refuse material; animal diseases and animal foods; car, steamship and steamboat sanitation; etiology of yellow fever; cause, prevention, incubation and duration of infectious diseases; public health regulations; cause and prevention of infant mortality; disinfectants and disinfection; national leper homes; dangers to the public health from illuminating and fuel gas; transportation of diseased tissue by mail; teaching of hygiene and granting of the diploma of doctor of public health; the relative immunizing value of human and bovine virus, and the investigation of the canteen system of the United States Army. In the section of bacteriology and chemistry there will be discussions upon standard methods of water analysis, the bacteriology of milk and its sanitary relations, and variations of the colon bacillus in relation to public health. The chairman of this section is Dr. W. F. F. Westbrook, Minneapolis, Minn. The officers of the Association are: President, Dr. H. B. Holton, Battleboro, Vt.; vice-presidents, Dr. Walter Reed, Washington, D. C., and Dr. Jesús Chico, Guanajuato, Mexico; secretary, Dr. C. O. Probst, Columbus, Ohio, and treasurer, Dr. S. W. Wright, New Haven, Conn.

MISCELLANY.

Cholera in the Philippines.—Cholera reappeared among the men in the Fifth Infantry stationed in Manila, November 11. Seven men have already died, and a number of others are seriously ill. This outbreak of cholera developed in the detachment which was on guard along the Maraquina river, whence Manila receives its water-supply. Since that date there have been, on an average, 30 new cases daily. The Funston Reserve Hospital, the camp at Santa Mesa, the prison and the Maraquina Valley are all infected. Instead of diminishing with the advent of the rainy season, the cholera has increased, causing grave apprehension. Should the Maraquina River become con-

taminated, the disease will spread, especially among the Americans, in spite of the fact that American soldiers have been ordered to drink only boiled water. The fact that cholera epidemics follow water courses has already been demonstrated in many epidemics.

Cholera in Palestine.—The epidemic is spreading rapidly. There have been 57 deaths in 3 days at Jaffa. The population of Gaza and Lydda have been decimated. Complete mortality returns are not yet available.

Nicaragua's Quarantine Against Yellow Fever.—Quarantine has been declared in Nicaragua against vessels from Colon and Bocas del Toro, Colombia, and Port Limon, Costa Rica, because of the outbreak of yellow fever there.

Yellow Fever at Panama.—One death occurred November 13, among the privates of the Marine Corps, stationed at Panama. On this account the Marines on the Isthmus of Panama have been withdrawn to the Island of Culebra.

Obituary.—Dr. Edgar Pumphrey Cook, at Mendota, Ill., October 31, aged 69 years.—Dr. John E. T. Ewell, at Waverly, Va., November 7, aged 68 years.—Dr. Robert C. Kedzie, at Lansing, Mich., November 7, aged 79 years.—Dr. Walter Stubbs, at Lima, Peru, November 9, aged 47 years.—Dr. Roger T. Atkinson, at Norfolk, Va., November 10, aged 30 years.—Dr. W. H. Kimberlin, at Kansas City, Mo., November 11, aged 58 years.—Dr. Obadiah Nowcomb, at New York City, November 10, aged 82 years.—Dr. A. B. Mason, at Toledo, Ohio, November 12, aged 74 years.—Dr. Charles Reed Riebsam, at Madison, Wis., November 12, aged 76 years.—Dr. James Johnston Bell, at Chicago, Ill., November 4, aged 41 years.—Dr. John James May Angear, at Chicago, Ill., November 8, aged 73 years.—Dr. William Henry Haynes, at Brooklyn, N. Y., November 15, aged 46 years.—Dr. William Henry Hosmer, at Penacook, N. H., November 15, aged 88 years.—Dr. William H. Crim, at Baltimore, Md., November 15, aged 58 years.

GREAT BRITAIN, ETC.

King's College Hospital, London.—Professor William Rose, professor of clinical surgery and senior surgeon to the hospital, has resigned those appointments after a service of over 25 years, and has become emeritus professor of surgery, member of the council and consulting surgeon to the hospital. W. Watson Cheyne has been promoted to professor of clinical surgery in Professor Rose's place, Albert Carless becoming professor of surgery to the hospital.

Death of Lennox Browne.—Lennox Browne, who studied medicine at Edinburgh and at St. George's and Middlesex Hospitals, London, became M. R. C. S. (Eng.) in 1863 and F. R. C. S. (Edin.) in 1873, the well-known specialist in diseases of the throat, consulting surgeon to the Central London Throat, Nose and Ear Hospital, died of malignant disease of the liver, November 2, at Northwood, in his sixty-second year. He was assistant to Morell Mackenzie for a number of years. He was also surgeon and aural surgeon to the Royal Society of Musicians, Royal Choral Society and to the Dramatic Sick Fund; formerly president of the British Laryngological and Rhinological Association; fellow of the Medical and Pathological Societies; honorary member of the Philadelphia County Medical Society, and Corresponding Fellow of the American Laryngological Association.

CONTINENTAL EUROPE.

Italian Fecundity.—A woman of Nocera, near Naples, has, during 20 years of married life, become the mother of 62 children, 59 boys and 3 girls, according to a recent report. A petition to the Italian Government, asking financial aid for her, has been signed by nearly 3000 people.

Leprosy in Paris.—The fact is not generally known that over a dozen lepers are under treatment in the St. Louis Hospital, Paris. The hospital authorities have asked for a municipal appropriation to build a special annex for the lepers. Dr. Hallopeau states that he desires to remove the lepers from the general wards, because they are peculiarly subject to tuberculous affections.

Obituary.—Dr. Eugen Hahn, professor of surgery and director of the surgical department of the Friedrichshain Hospital, Berlin, died November 1, in Berlin, aged 61 years.—Dr. Michael Emnaw, formerly professor of comparative anatomy and embryology in the University of Kasan, died in Kasan, September 29, aged 57 years.—Dr. Bronislaw Spakowski, formerly chief of the psychiatric department of the Odessa Hospital, died recently, aged 58 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

November 1 1902. (No. 2183.)

1. A Discussion on the Causes, Diagnosis and Principles of the Treatment of Dilatation of the Stomach. T. CLIFFORD ALLBUTT, NOEL BARDSWELL, WILLIAM BROADBENT, J. H. MUSSER, T. D. SAVILL, HARRY CAMPBELL, ALFRED PARSONS, ALFRED MANTLE, WILLIAM CALDWELL, W. P. MAY, and JOHN HADDON.
2. On the Dietetic Treatment of Granular Kidney. CARL von NOORDEN.
3. A Successful Case of Gastroplication for Dilated Stomach. WM. MITCHELL BANKS.
4. A Discussion on the Differential Diagnosis of Functional and Organic Paralysis. THOMAS BUZZARD, WILLIAM H. BROADBENT, JAMES GRANT, E. F. TREVELYAN, JUDSON S. BURY, E. S. REYNOLDS, T. D. SAVILL, HARRY CAMPBELL, F. W. MOTT, DAVID DRUMMOND, JOHN M. MACCORMAC and PURVES STEWART.
5. Infantilism and Senilism. HASTINGS GILFORD.
6. The Cause of Heart Irregularity in Influenza, with a Demonstration of the Clinical Polygraph. JAMES MACKENZIE.
7. The Clinical Estimation of Urinary Purins by Means of the Purinometer. I. W. HALL.
8. Observations Upon Certain Forms of Arthritis. F. J. POYNTON and ALEXANDER PAINE.
9. Some Practical Remarks on the Diagnosis of Heart Disease. DAVID DRUMMOND.
10. The Earliest Known Physician. F. M. SANDWICH.
11. Overlooked Forms of Graves's Disease. HARRY CAMPBELL.
12. Some Observations on, and the Results of the Treatment of, One Hundred Cases of Pulmonary Tuberculosis Treated by the Open Air Method. D. J. CHOWRY-MUTHU.
13. The Dietetic Treatment of Pulmonary Tuberculosis. NOEL D. BARDSWELL and J. E. CHAPMAN.

1.—Allbutt believes that extension of the stomach is a better name for the condition than dilation of the stomach. Acute dilation of the stomach is probably due to the fact that under certain ill-understood mechanical conditions, in which great repletion of the stomach may play the chief part, the gut at or near the junction of the duodenum and the jejunum is compressed and occluded by the loaded viscus. It is also possible that the stomach may yield considerably by loss of tone and elasticity, so that it may embarrass the neighboring parts, particularly the heart. Furthermore, a deterioration of the functions of the organ may accompany its extension, so that there is a bad effect upon the general health. Such extension of the stomach may be detected during life and may be remediable. At present the means of defining the position and volume of the stomach are defective. The author is not strongly convinced that tight lacing is a main cause of ptosis of the stomach: on the other hand, emaciation is considered to be a much more important contributory factor. He also thinks that the dependence of dilation of the stomach on movable kidney has been overrated. Relaxation and extension of the stomach may occur in acute gastritis, in chronic gastritis, in cases in which there is deficient or excessive gastric juice without gastritis and in primary muscular failure, which may be due to toxic influences or to atony. It is difficult to discover and to measure the smaller degrees of extension of the stomach. The most instructive signs of this condition are to be found in the neighborhood of the fundus, which is usually distended, so that it pushes up the diaphragm and encroaches upon the thorax. In such cases the area of gastric resonance may extend upward to the fourth rib and backward to the posterior axillary line. In the diagnosis of the condition, splashing and squelching in the stomach cannot be considered pathognomonic signs; absence of splenic dulness is corroborative of distended fundus; but the testing of the stomach contents by siphonage is of cardinal importance. The exhibition of tartaric acid after sodium bicarbonate is not to be recommended; illu-

mination of the stomach from within promises little; radiography has already yielded some information; the potassium iodide test is better than the salol test for motor insufficiency. The part played by gastritis in producing dilation of the stomach may be removed by the use of liberal doses of bismuth with sodium bromide and tincture of rhubarb. If hydrochloric acid is present in excess, calcined magnesia is the best corrective. Strychnine, systematic gastric lavage, electricity, massage, hydrotherapy and gentle saline laxatives in the treatment of this condition are then discussed and their proper value assigned. Feedings should be frequent, small in quantity and concentrated; carbohydrate foods should be withdrawn from the diet; the digestion may be aided by the use of papain with small doses of hydrochloric acid, although the latter should not be given if the gastric juice contains an excess. Rest cure is of great importance in gastroparesis. The discussion on this subject was continued by Bardswell, Broadbent, Musser, Savill, Campbell and others. Their remarks are of value and should be studied by those who are particularly interested in this subject. [J. M. S.]

2.—Von Noorden says that there are 3 criteria for determining whether a certain diet suits **diseased kidneys**: (1) The general clinical appearance and course of the patient's illness; (2) the intensity of the albuminuria; (3) the examination of the excretory power of the diseased kidneys. Potassium iodide, salicylic acid, methylene blue and phloridzin are useful adjuncts in determining the latter condition. In order to learn what diet is most appropriate for diseased kidneys we must study the elimination of the natural products of metabolism. In acute nephritis and in all acute exacerbations of chronic renal disease, urea, creatinin, hippuric acid, coloring matter, phosphates, inorganic sulphates and potassium salts are imperfectly eliminated. Uric acid, xanthin bases, aromatic substances and ammonium salts, amido acids, chlorides and carbonates are well eliminated. In the terminal stages of chronic interstitial nephritis and in the acute exacerbations of such a disease, the elimination of uric substances is similar to that in acute nephritis. In the ordinary forms of chronic Bright's disease, the elimination of the normal products of metabolism is generally good. But urea, inorganic sulphates, uric acid, foreign substances, such as lead, arsenic, iron, iodine, bromine, boric acid and alkaloids, are difficult of elimination. A male patient with chronic Bright's disease may take as much as 112 grams of albuminoid food per day, and a female patient may take as much as 100 grams. Animal tissues rich in nuclein, such as sweetbreads, liver, kidneys and all other glandular organs are not to be taken. The kidneys make no difference in eliminating the albumin of meat, fish, eggs or vegetables. A patient with Bright's disease should not drink more than 1¼ liters of water a day, except once a week, when he may drink 2½ to 3 liters. Too much water is likely to inundate the vascular system and increase the work of the heart, so that permanent damage may be done to that organ. Every patient with chronic nephritis has also heart disease, and in many cases the latter is more serious than the former. Too great restriction of fluid, however, usually increases the percentage of albumin in the urine. The total quantity of food given should depend upon the amount of fat produced in the body. [J. M. S.]

3.—Banks reports a case of **gastroplication for dilated stomach**. The patient was 36 years old, and the operation was a success. [J. M. S.]

4.—One of the following symptoms is conclusive of the existence of **organic paralysis**: Optic neuritis or atrophy, fixed pupil, hemianopsia, absence of kneejerks, definite changes in the electrical reactions of the muscles, picked out atrophy of the muscles, bedsores, paralysis of the bladder with ammoniacal urine, paralysis exactly limited to the district of a single nerve or of a plexus and the toe phenomenon of Babinski. On the other hand, there are probably no symptoms which, unsupported, can be relied upon to establish a diagnosis of **functional paralysis**. Buzzard then discusses the differential diagnosis between organic and functional hemiplegia, monoplegia, paraplegia and insular sclerosis. The author urges that practice in the observation and correct appreciation of Babinski's toe phenomenon should occupy a very prominent position in the education of the medical student. [J. M. S.]

5.—As a rule, **infantilism** is either associated with disease, is produced by disease or is the actual cause of disease. **Morbid infantilism** is prone to be associated with the imperfect action of important organs, such as the thyroid gland, the pituitary body, the sexual organs, the brain and the heart. **Ateleiosis** is a name given to a condition in which the individual fails to arrive at perfection. According to Gilford, the characteristic features of this disease are: (1) Abrupt onset; (2) absence of perceptible cause; (3) presence of infantilism of a conspicuous kind; (4) retention of unimpaired intelligence, and (5) a special tendency to marked delay in the development of the sexual system. There are 3 groups of the disease. (1) Fetal ateleiosis; (2) ateleiosis beginning during infancy or childhood; (3) ateleiosis beginning at a later period in life. The second class of cases are most characteristic. The precocious development of **morbid senilism** is an indication of disease. Possibly the most frequent cause is the premature development of the sexual organs. It may be due to acromegaly, mental shock or to syphilis. Such diseases as locomotor ataxia, general paralysis and osteitis deformans are also due to premature senile degeneration or to some imitation of it. **Progeria** is characterized by abrupt onset, the absence of perceptible cause, the presence of a conspicuous form of senilism and the retention of intelligence. The author reports a case of progeria in a child, 14 years of age. An examination of the tissues of this individual showed that certain of the connective tissues, the membrane bones, the muscles and such epithelial structures as the skin and its appendages, the teeth and the mucous membranes of the tongue and of the intestines, were atrophied or of imperfect formation. On the other hand, the cartilaginous structures, the nervous system, the liver and the sexual system were either hypertrophied or of good development. [J. M. S.]

6.—MacKenzie has convinced himself that, when there is a discordance between the action of the chambers of the heart, the auricles invariably act together. He also believes that the **irregularity of the heart in influenza** and also possibly in diphtheria is due to a poison acting on the heart itself and not to stimulation of the pneumogastric nerve. [J. M. S.]

7.—Purin bodies are all those substances that contain the nucleus C_5H_4 . They are described as exogenous if they are derived from the foodstuffs, and endogenous when they are due to nuclein cleavage during metabolic processes. Hall describes a **purinometer for the estimation of the amount of purin substances contained in the urine**, and gives the formulæ for the solutions used to produce the reaction. [J. M. S.]

8.—In the production of **rheumatic arthritis**, Poynton and Paine have determined, from experiments with the micro-organisms that they have isolated in cases of rheumatism, that these organisms first reach the synovial membrane through the bloodstream, and then they make their way out of the capillaries that lie in the areolar tissue immediately beneath the endothelium. This endothelium serves as a barrier to their escape into the joint cavity; and phagocytic cells and large numbers of leukocytes may be found in this areolar tissue. The micro-organisms, however, exert an injurious effect upon the tissues; the capillaries become distended and may rupture, the connective tissues swell up and a blood-stained fluid may be exuded into the cavity of the joint. While the endothelium is intact, the micro-organisms do not escape into the fluid, which accounts for the fact that the early exudations in this disease are often sterile. The authors incline to the belief that the nervous and arthritic phenomena of **rheumatoid arthritis** are the common result of some poison or poisons which have especial affinity for these structures. It is not improbable that some cases of rheumatoid arthritis associated with rheumatic fever are examples of an intensification of bacterial virulence. The authors report 4 cases of **suppurative arthritis**; in one of these the infection was of a rheumatic type; in the second the actual cause could not be determined; the third case was one of gonococcic arthritis and the fourth was due to the streptococcus. They call attention to the importance of arresting chronic discharges or ulcerations, the careful management of the throat and the cleansing of the

mouth in arthritic subjects. The thorough investigation of the exudate in a diseased joint will place surgical treatment on a surer basis. [J. M. S.]

9.—Drummond points out the following practical points in relation to the diagnosis of heart disease. (1) It is important to recognize that a murmur does not necessarily indicate a lesion. (2) Alcohol acts inimically upon the heart and may cause a grave lesion. It is a common cause of permanent mitral regurgitation and a heart poisoned by this toxic agent is most insecure and exposes the patient to the risk of sudden death. The prognosis is always grave, but the danger is greatly increased when a chronic kidney lesion is associated with the heart weakness. (3) The absence of a history of rheumatism in a case of cardiac disease in middle life should suggest the cause next in order of frequency, which is probably syphilis. (4) In chronic kidney disease a large, thin-walled ventricle is nearly as frequently found as an hypertrophied ventricle, and in some instances no obvious change can be detected except slight dilatation. One of the most valuable physical signs of cardiac disease complicating kidney disease is the reduplication of the first sound which suggests the renal origin of the cardiac disturbance and indicates that compensation has begun to fail. Under these circumstances a systolic, mitral murmur can often be brought out by placing the patient on his left side. (5) It may be difficult and even impossible to recognize slight degrees of dilatation of the heart, but, as a rule, more reliance is to be placed on careful observation of the general symptoms in addition to the usual physical signs of cardiac failure than upon percussion. Obvious cardiac weakness as indicated by dyspnea, dropsy, low tension, weak pulse, further weakened by exertion, with great cardiac enlargement and systolic murmur points to gross cardiac dilatation. (6) In the absence of murmur and thrill the most important physical sign of mitral stenosis is a sharp systolic rap or snap to be detected by palpation. This is usually best felt over the right ventricle. [J. M. S.]

11.—Campbell often discovers cases of Graves's disease which, on account of the absence of exophthalmos and pronounced enlargement of the thyroid, have escaped recognition. The most important symptoms suggesting this condition are extreme nervousness and hand tremor, together with tachycardia. Added to these 3 symptoms the patient is often emaciated, perspires profusely and has a pigmented skin. The thyroid gland is the center of the pathology of this disease. One of the most characteristic features is the disappearance of the colloid contents from the alveoli of the gland. It is probably certain that the general symptoms of Graves's disease are due to the passage into the blood of excessive quantities of this or of some other normal or perverted thyroid secretion. [J.M.S.]

12.—Chowry-Muthu presents a paper dealing with the open air-method of treating pulmonary tuberculosis. The method is not yet perfect and the probabilities are that the greatest field for its employment lies in the line of prevention rather than of cure. [J. M. S.]

13.—In the dietetic treatment of pulmonary tuberculosis Bardswell and Chapman have found both clinically and experimentally that proteid has a much greater effect in inducing the arrest of tuberculous processes than either fat or carbohydrate. The advantages of a diet rich in proteid and only slightly increased in fat and carbohydrates are: (1) Because of the absence of the necessity of prescribing large amounts of the last 2 substances, which are disliked by the consumptive; (2) because proteid can be given in large quantities in liquid form, as milk, to which any of the numerous casein preparations may be added; (3) because it is easier to give proteid in large quantity; (4) because the body-weight is not upset. Under a proteid diet the absorption of the proteid from the intestines is normal or but slightly decreased; while the absorption of fat is also normal. This good absorption renders it possible to overfeed a patient. While overfeeding is usually associated with satisfactory progress in the lungs, the administration of a small increase of the physiological diet is sufficient to insure equal improvement in the lung with less risk of injurious consequences. [J. M. S.]

LANCET.

November 1, 1902.

1. Presidential Address on the Pathology of Infection.
J. BURDON-SANDERSON.
2. Four Lectures on the Nature, Causes and Treatment of Cardiac Pain. Lecture I. ALEXANDER MORISON.
3. A Case of Aneurysm Involving the Innominate, the Right Subclavian and Common Carotid Arteries; Treatment by Proximal Ligation; Death from Direct Extension of Coagulation from the Aneurysm to the Middle Cerebral Artery. CHARLES A. BALLANCE.
4. Abstract of Certain Experiments on Tuberculosis.
GEORGE DEAN and CHARLES TODD.
5. Ozone in Chronic Middle-Ear Deafness.
GEORGE STOKER.
6. The Epidemic of Cerebrospinal Meningitis at Lisbon.
H. W. SEAGER.
7. Some Clinical Aspects of Revaccination.
ARTHUR MAUDE.
8. Acute Pancreatitis Associated with Cholelithiasis and Glycosuria; Cholecystotomy; Recovery.
W. GIFFORD NASH.

2.—Will be treated editorially.

3.—Ballance reports an interesting case of aneurysm involving the innominate, the right subclavian and the right common carotid arteries, in which he ligated the innominate close to the aorta. The patient died on the day following the operation from direct extension of the clot from the aneurysm to the middle cerebral artery. The patient was a marine, 35 years of age. The aneurysm was a large one. The symptoms began 18 months before admission to the hospital; there was no clear history of syphilis. A modified Valsalvan treatment, consisting in absolute rest, reduction of food and drink and large dose of potassium iodide, was instituted. Under this treatment, however, the aneurysm slowly increased in size. Proximal ligation was then determined upon. When the aneurysm was exposed, it was found to extend to within $\frac{1}{2}$ inch of the aorta. This proximal portion of the artery seemed healthy and was not dilated. In order to have free access to the vessel, the manubrium was split and retracted. This step in the operation, however, Ballance believes was unnecessary, and he does not recommend it. The vessel was ligated with 4 ligatures of goldbeaters' skin, size No. 4. Pulsation in the aneurysm immediately ceased. The common carotid was then exposed above the aneurysm, and 2 strands of the same ligature material were passed around it and tied. It was obvious, however, at this time that the carotid was distended with clot and that its ligation was really needless. When the patient left the operating room there was no right radial pulse; the right half of the face was colder than the left, and the left half was sweating. On the afternoon of the following day left hemiplegia developed and the patient died in the evening. At the necropsy the right common carotid, the right internal carotid and the right middle cerebral arteries were found distended with clot. The other vessels at the base of the brain were collapsed and contained no clot. The innominate artery was found involved in the aneurysm with the exception of the lower half inch. The first and second parts of the right subclavian and the lower portion of the common carotid were also involved in the aneurysmal tumor. The ligatures were found holding the vessel walls in contact without rupture of the coats. Ballance presents a number of interesting cuts representing the aneurysm and 2 cross sections showing the anatomy of the parts. Reference is made to the published cases of ligation of the innominate, and the various authorities are quoted. Before attempting the ligation of this vessel the surgeon should have well-fixed in his mind the anatomy of the parts. The goldbeaters' skin ligature made from the peritoneum of the ox is strongly recommended. Three pounds of pressure are required to occlude the innominate artery and 10 pounds

to rupture it. The "stay-knot" is the one of choice in the ligation of large vessels. Two ligatures should be placed about the vessel and a single knot made in each; these knots are tightened at the same time by pulling on the ligatures. The 2 ends on each side are then tied in a second knot as one ligature. Regarding the cause of death in the case reported, Ballance does not think it directly due to the operation, but that the preceding Valsalvan treatment, which reduced the patient's resisting power, had much to do with it. The adoption of this treatment in an operable case of aneurysm is considered an error.

[J. H. G.]

4.—Dean and Todd present an abstract of **certain experiments on tuberculosis**, the main object of these being to ascertain whether the tubercle bacillus of human origin undergoes any marked change in virulence for the bovine species by passing through certain other animals. The animals employed were the pig, the cat, the rabbit and the rat. The article contains tables giving the particulars of the experiments performed. The experiments cited appear to demonstrate that the human tubercle bacillus is not markedly increased in its virulence for the calf by a single passage through the pig, the cat, the rabbit or the rat. They, however, show that the human tubercle bacillus is by no means innocuous to the calf, as the control animal injected directly with sputum contracted an extensive glandular tuberculosis. They mention that their experiments might suggest that the passage through the intermediate animals had caused a diminution in the virulence of the bacillus for the calf, but it must be remembered that in the one case the associated organisms had been eliminated by passage, while in the other case they may have played an important role in aiding the attack of the tubercle bacillus. The role that these associated micro-organisms are capable of playing in certain diseases is a matter of general knowledge. Apropos of this it is interesting to note that the only pig, in the series which failed to show tuberculous infection of any sort, was the animal inoculated with tuberculous material obtained from another pig, and in this material the tubercle bacillus was unaccompanied by other organisms. They also contend that the problem is complicated by the possibility of the juices of the emulsified organisms having played some part in the process. **The important result obtained was that the pig is capable of contracting a rapidly fatal general tuberculosis as the result of inoculation with the tubercle bacillus of human origin.** [F. J. K.]

5.—Stoker discusses the **use of ozone in chronic middle ear disease**. The article contains brief notes of 4 cases. In all of the reported cases hearing improved considerably, and in some the progress was remarkable by the use of ozone application. The ozone was generated by means of an electric current acting on a Rhumkorff's coil to which the ozonizing tube was attached. The ozone was pumped into the middle ear through a Eustachian catheter. [F. J. K.]

7.—Maude discusses **some clinical aspects of revaccination**. As a basis for this report he has taken cases between 2 dates which roughly total to 1,000. He employed lymph from 3 sources. The lymph from the National Vaccine Establishment was generally of good medium reaction; that from Renner's showed a very high reactive power and the third form of lymph was abandoned after a few weeks trial because it was almost inert. In this series he has noticed recrudescence of pocks in young adults 2 or even 3 weeks after revaccination. In one instance he observed the raspberry excrescence in a boy, 14 years of age, who had never been revaccinated. He describes the character of the pocks and calls particular attention to the areola to which so much attention was paid by old vaccinators, and without which no vaccination was considered valid. In his opinion this was undoubtedly erroneous. He thinks the inflammatory areola is unques-

tionably due to a second infection by micrococci, and that this areola is quite unnecessary for effective vaccination. He also considers the constitutional symptoms, which he believes are more marked in revaccination than in primary cases and also more pronounced in adults than in infants. The rashes occurring in some cases of revaccinations, he maintains, are of no importance except from the irritation they produce, and he emphasizes that his experience leads him to think that they occur particularly in young female adults, and that personal idiosyncrasies have much to do with their occurrence. He has never observed an eruption due to mixed infection. Rashes occur more frequently in revaccination than in primary vaccination.

[F. J. K.]

8.—Nash reports a case of **pancreatitis associated with cholelithiasis and glycosuria** in which he performed cholecystotomy resulting in recovery. The patient was a man, 60 years of age, who had had attacks of epigastric pain extending over a period of 7 years. The onset of the present attack was sudden, and the pain was located in the epigastrium, accompanied with nausea, vomiting, hiccough and collapse. At first the temperature was subnormal, but in the course of 2 days it rose to 2 or 3 degrees above normal. The pulse was very rapid, about 160. The whole abdomen became enormously distended, suggesting intestinal obstruction. This distension was relieved by enemata and aperients, but it quickly reappeared. With the subsidence of the distension there was increased resistance over the pancreas, giving the impression of effusion into the lesser peritoneal cavity. The urine showed a large quantity of sugar when examined several days after the onset of the attack. The abdomen was opened, and fat necrosis was apparent over the mesentery and omentum in the neighborhood of the pancreas. The pancreas was enlarged, but there was no effusion into the lesser peritoneal cavity. The gall-bladder contained a large calculus which was removed. The gall-bladder was attached to the abdominal wall and drainage established. The patient made a satisfactory recovery, and 4 months after the operation his urine was free from sugar. Nash believes that the stone in the gall-bladder was accompanied by a sudden inflammation of the bile passages and that some infection spread along the ducts to the pancreas. [J. H. G.]

MEDICAL RECORD.

November 15, 1902.

1. The Primary New Growths of the Pleura. FRANCIS DELAFIELD.
2. The Present Status of Radiotherapy in Cutaneous Diseases and Cancer. CHARLES WARRENNE ALLEN.
3. Biogenesis and Heredity. RAYMOND WALLACE.
4. The Criminal Responsibility of the Epileptic. JOHN PUNTON.

1.—Delafield reports 4 cases of primary new growths of the pleura. It is generally agreed that these tumors are **endothelial growths** which originate in the lymphatics of the pleura. There is a new growth of cells from the endothelium of the lymphatics and an increase in the size and number of lymphatics. The pleura is split up by an extensive new growth of cells, and there is a large transudation of bloodserum rich in fibrinoplastic substances. Tumor formation is a later development. The new growth and the inflammatory changes may be confined to one pleura. They may involve both pleuræ and the peritoneum. The history is that of a pleurisy with effusion, which is unusually severe and which terminates fatally. During the first weeks it is difficult to distinguish these cases from ordinary pleuritic effusions. Only the bloody serum and the low temperature are suspicious. As time goes on, the loss of flesh and strength and the appearance of the patient lead one to suspect malignancy. [T. L. C.]

2.—Allen reports his results with **radiotherapy in cutaneous diseases and cancer**. He states that during the past year he has used this method in a variety of skin affections, including a number of cases of lupus, lupus erythematosus, inveterate psoriasis, obstinate eczema, acne, sycosis, lep-

rosy, xeroderma pigmentosa, favus, ringworm, etc. He believes that the ray is a decided aid in conjunction with other treatment in combating these rebellious affections. He has used the ray in some cases of **Hodgkin's disease, internal sarcoma and cancer of the liver** and, while he has had no cures, some of these cases have shown some gratifying improvement. [T. L. C.]

4.—Punton discussing the **criminal responsibility of the epileptic** presents the following conclusions: (1) That epilepsy is a symptoms of some brain disease; (2) that its continual presence tends toward mental deterioration; (3) that the mental responsibility of the epileptic depends upon the extent to which mind or self-control has been impaired by the epilepsy; (4) that the legal test of insanity is not sufficient, as mental irresponsibility is not incompatible with a knowledge of right from wrong; (5) that epileptics are, to some degree at least, responsible for criminal acts, more especially when the epilepsy is produced by their own fault; (6) that criminal acts of epileptics appeal to medicine rather than to law for their proper adjudication; (7) that in all cases of murder in which epilepsy is proven the law should be amended to allow of like commitment to an insane hospital rather than to the penitentiary; (8) that the mental responsibility of the epileptic in case of murder should be referred to a medical commission, appointed by the court, which again may be referred to local or county medical societies to name its members. [D. L. C.]

MEDICAL NEWS.

November 15, 1902. (Vol. 81, No. 20.)

1. Climatology of California. ALEXANDER McADIE.
2. The Climate of the Eastern Foothills of Southern California. C. A. SANBORN.
3. The Climate of Maine. GUY HINSDALE.
4. Lacerations of the Uterine Cervix and Their Sequelæ. CHARLES H. BUSHONG.
5. The Influence and Value of Organization. GEORGE W. MILES.
6. Uric Acid in the Blood and Tissues as a Cause for Certain Stomach and Intestinal Troubles. FREEMAN F. WARD.
7. Gunshot Wounds of the Chest and Abdomen from a Military Standpoint. LOUIS LAGARDE.
8. Medical Treatment of Cholelithiasis.

R. ALEXANDER BATE.

1.—McAdie, in his article on the **climate of Southern California**, gives these important facts: (1) On account of the proximity to the ocean, which is a great natural conservator of heat, the temperatures are, as a rule, moderate and equable; (2) because of the exceedingly diversified topography the climatic conditions are likewise much diversified; (3) that the prevailing easterly drift of the air in these latitudes brings a constant supply of fresh air, neither too hot nor too cold, to most of the State; (4) owing to the general path of storm movements lying to the north, California escapes many of the disturbances so familiar elsewhere. The combination of the above gives a climate different from that of other sections of our great country. [T. M. T.]

2.—Sanborn states that the average altitude of this region is about 1,200 feet. The thermometer is never below 32° F., and there are 320 days of sunshine in the year, the other 45 days covering all weather disagreeable from rain, wind and heat. He believes that the climate is well adapted for those persons suffering from pulmonary lesions not too far advanced, especially in that part of the valley where orange growing and the consequent dampness from irrigation do not prevail. Tonsillitis and pharyngitis are quite common, occurring at the time of the spreading of commercial fertilizers. The author explains the causes of the nervous troubles which are apt to prevail in Southern California in the following manner: (1) North winds and altitude are not alone responsible for these conditions; (2) continued eye strain for a succession of bright days with-

out proper protection for the eyes, causing headaches, predisposes not only invalids but also healthy persons to nervous exhaustion; (3) nostalgia is probably the most important factor. [T. M. T.]

4.—Bushong says that results obtained by **local treatment** are always more satisfactory than those from operation. When a perfect cure is made, the cervix has absolutely no cicatricial tissue left in it as seen after an operation, unless removed by a subsequent operation. Two of the most important factors in the treatment are the proper using of the douche and keeping the bowels open regularly. [T. M. T.]

6.—Ward makes the following statement: (1) That some toxic substance or other circulating in the blood, through some faulty metabolism, is the cause of many of the cases, and also of numerous other affections and changes in the vital organs without giving us physical signs; (2) that we find individuals who have a tendency to an excess of uric acid exhibiting its effects by widely different manifestations; in some, as anemia or headaches; in others, as frequent sore throat without other cause; in others still, as gout or as muscular rheumatism, and again simply by a feeling of general congestion and heaviness, soreness of eyeballs, cold feet and hands, which indicates to the author's mind occlusion or congestion of the capillary circulation. He mentions only one drug, **sidonal**, a synthetical compound of quinic acid and piperazin, and lays great stress upon hydrotherapeutics and the so-called "spa treatment." [T. M. T.]

7.—LaGarde says the greatest resistance in tissue wounds comes from (1) compact bone, like that encountered in the shafts of the long bones, and (2) water. It has been found of the soft parts and of those tissues, like the lungs and joint ends of bone, which offer only a minimum of resistance to the modern rifle projectile that wounds are attended with limited destructive effects corresponding to the reduction in caliber of the missile. The extent of destruction in gunshot injuries is determined by the velocity and sectional area of the missile and the amount of resistance encountered at the point of impact. [T. M. T.]

8.—Bate's indications for **medical treatment** are (1) the prevention of the formation of calculi and (2) the control of the symptoms and the expulsion of the calculi when formed. For the first condition prophylactic treatment of the acid dyscrasia, or the prevention of an excess of organic acids in the system; care of the menstruating and pregnant female especially after the thirty-fifth year; the removal of all things tending to produce stagnation of the bile; the use of all means to promote its fluidity and outflow; the use of agents promoting biliary and intestinal sepsis and the use of lecithin or other solvents of cholesterolin in those from whom gall-stones have been removed. The agents assisting expulsion of the calculi may be divided into different classes: (1) The action of one class is due to influence upon the tissues of the biliary tract; (2) the action of the other class is due to influence upon the biliary concretion itself. The drugs belonging to the first class are *dioscorea villosa*, *carduus marianus*, *chionanthus virginica* and probably most cholagogues. In the second class we have lecithin, olive oil, glycerine, the salicylates, ether, chloroform, turpentine, animal soap, nitromuriatic acid, the succinate of the peroxide of iron, valerianate of amyl, toluylendiamin, pichi, Carlsbad salts and the alkalis in general. The author believes that lecithin is the best. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

November 15, 1902.

1. The Presidents Address Delivered at the Fifteenth Annual Meeting of the American Association of Obstetricians and Gynecologists. EDWIN RICKETTS.

2. Pathology and Treatment of Epilepsy.

WILLIAM H. THOMSON.

3. A Case of Ringworm of the Face, and Two of the Scalp, Contracted from a Microsporon of the Cat.

A. D. MEWBORN.

4. Depressed Fracture of the Malar Bone, with Report of Three Cases. STEWART LE ROY McCURDY.

5. Experimental Investigations with Röntgen Rays upon Living Tissue. J. RUDIS-JICINSKY.

6. Studies on Heredity. RAYMOND WALLACE.

2.—Epilepsy is a disease characterized by a sudden derangement of the normal regulative inhibition existing between cortical nerve centers, induced in the first instance by an abnormal afferent excitation. It occurs suddenly, and the loss of consciousness which follows is not causal in its relation to the disease. This is well shown by a case-history which is reported in full. It should also be remembered that epilepsy is of afferent origin. Thomson considers the prognosis for complete cure in average cases to be fully 70%. The chief reason that the percentage of actual cures does not reach this figure is the difficulty of getting the patients to persevere in the details of treatment. Mercury biniodide is of value in many cases, as are pharyngeal applications. Capsicum, belladonna and bromides, with cod-liver oil, phosphorus and antipyrine are also of use. Full details of the treatment are given. [M. O.]

3.—Mewborn reports 3 cases of ringworm, one affecting the face and 2 affecting the scalp, the microsporon having been contracted from cats. He concludes that differences of soil modify the clinical picture of a skin ringworm, as well as the microscopical appearance of the fungus; that in the fluid of an herpetic vesicle, the mycelium of a microsporon may produce external, grape-like spores; and that the yellow and brownish bands and the tangential fringe on beer-wort agar can be used to identify the source of infection in ringworm of the cat. Ten excellent plates accompany the article. [M. O.]

4.—McCurdy reports 3 cases of depressed fracture of the malar bone in all of which a coat-hook was used for replacing the depressed bone. Photographs of the patients and of the hook used are given. [M. O.]

5.—In the irritation produced by the Röntgen rays, 3 factors determine the special effect on the cell: The condition of the cell, the amount and intensity of the rays and the character of the rays. As a result of his experiments, Rudis-Jicinsky has compiled a set of regulations to be followed in radiotherapy. These are given in full. [M. O.]

6.—Wallace discusses the transmission of resemblances, anatomical, physiological and psychical. The explanation of the transmission of resemblances is based upon the adherent method of sexual reproduction and approximately constant environmental influences. As a result of changed molecular constituency of the chromatic substance of the fertilized ovum variations appear. He concludes that the process of cell growth and differentiation is a function of geometrical and physiological position, and the permanency of the advanced differentiation is a function of the time it has endured. The transmission of resemblances and the appearance of variations is dependent upon sexual reproduction, with its phenomenon of maturation and the reaction of the developing cells to various environmental influences. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

November 13, 1902. (Vol. CXLVII.)

1. Barber-Surgeons. FREDERIC W. TAYLOR.

2. The Clinical Study of Four Hundred and Eighty-five Cases of Nail Disease. CHARLES J. WHITE.

3. A Probable Myxofibroma of the Nose.

SEABURY W. ALLEN.

2.—White in his table shows that, out of 485 examples of pathological nails, 6 conditions are illustrated by 404.

The first and most frequent is eczema, which furnished 107 cases; (2) trauma or felon, 72; (3) paronychia, 68; (4) psoriasis, 67; (5) professional dermatitis without paronychia, 62. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 15, 1902.

1. William Beaumont, a Pioneer American Physiologist.

WILLIAM OSLER.

2. Pneumonia. Its Fatality and Increasing Prevalence, with Suggestions for Individual Prophylaxis.

EDWARD P. WELLS.

3. Pneumonia; its Incidence, Morality, Prophylaxis.

JAMES J. WALSH.

4. Venesection. H. B. FAVILL.

5. Blood-Letting and Blistering in the Treatment of Pneumonia. JAMES TYSON.

6. The Drug Treatment of Pneumonia. A. A. STEVENS.

7. Experimental Research on the Heart of the Dog, with Reference to Cardiotomy and Cardiorrhaphy.

B. MERRILL RICKETTS.

8. Address on an Exhibit of Early (Prior to 1860) British and American Ophthalmic Literature.

CASEY A. WOOD.

9. Renal Insufficiency in the Tropics.

JAMES CABELL MINOR.

1.—Osler contributes a very interesting sketch on William Beaumont, a pioneer of American Physiology.

[F. J. K.]

2.—Wells discusses the fatality and increasing prevalence of pneumonia, with suggestions for individual and communal prophylaxis. He reaches the following conclusions: (1) The fatality of pneumonia has increased but little, if any, during the past 80 years. (2) The prevalence of pneumonia has steadily increased during the past 50 years, and during the past 20 years this increase has been very great. (3) For individual prophylaxis the nasal, pharyngeal and oral cavities should be kept as free as possible from accumulations of mucus, and when it has been demonstrated that such secretion contains the pneumococcus, such efforts should be especially well directed and maintained. In addition, care should be taken not to become chilled when overtired. The individual should, as far as practicable, keep out of range of the extruded pneumococcus-laden secretions of infected individuals. The sputum and other secretions of the respiratory tract surfaces of pneumonic patients, or of other infected individuals, should be destroyed before they have been allowed to become dry. Such persons should sneeze and cough into a moistened cloth. (4) For communal prophylaxis the information and advice above given should be kept before physicians with the request that, if they can consistently do so, they give it as their instructions to their patients. (5) That there may be some comparatively simple means by which pneumonia may be prevented, but that the fundamental information on which prophylactic rules may be formulated is not yet at hand; therefore, it should be the province and duty of public health officers to seek assiduously for such knowledge, and the author suggests that, as a preliminary step in this direction, pneumonia be placed on the list of notifiable diseases, and the environment of pneumonic patients be carefully noted and the results analyzed. [F. J. K.]

3.—See Philadelphia Medical Journal, June 21, 1902, page 1096.

4.—See Philadelphia Medical Journal, June 21, 1902, page 1106.

5.—See Philadelphia Medical Journal, June 21, 1902, page 1105.

6.—See Philadelphia Medical Journal, June 21, 1902, page 1106.

7.—Ricketts presents the results of his experiments upon

a number of dogs with reference to cardiomy and cardiorrhaphy. The author goes carefully into the technique which he practised. The heart can be handled to a remarkable degree without any appreciable change in the beat. Exposure of the heart, however, results in its dilatation since the support afforded by the pericardium is removed. Before suturing the wound in the heart, the flow of blood can be controlled by light pressure; it is not necessary to press hard enough to prevent the action of the organ or to bring its walls in contact. If during the manipulation the heart ceases to beat, the wound should be kept closed with the finger and the wound in the chest wall closed as much as possible. This helps to restore somewhat the support of the heart. Glover's continuous suture is preferable to all others. The weight of opinion is in favor of interrupted sutures of twisted silk. The smallest possible silk and needle should be employed; the objection to kangaroo tendon and catgut is that a larger needle is required for them. Some wounds which enter the heart muscle do not require suturing, as they will close and recover spontaneously. In speaking of his results Ricketts says that he has ligated either of the coronary arteries at any point of their distribution without producing death.

[J. H. G.]

9.—Cabell contributes an article entitled **renal insufficiency in the tropics**. He deduces the following conclusions: (1) Whether the systemic disturbance causing the usual disorders peculiar to the tropics be uric acid or faulty metabolism or both, the kidneys in the tropics do not perform their share of the work of emunction. (2) The reason for this renal insufficiency in the tropics is that the tide of water (the necessary solvent vehicle for urinary solids) pours through the skin so rapidly that the volume of circulation is so correspondingly diminished that water products are stranded in those tissues most favored by the weakened flushing force for stasis. (3) The remedy is the internal use of water as fast or faster than it is wasted by the skin in order to force the kidneys to work and to maintain a normal volume of the circulation, and the external use of water and sun baths systematically for their toughening and contractile influence on the skin. [F. J. K.]

AMERICAN MEDICINE.

November 15, 1902.

1. An Infectious Form of an Eczematoid Dermatitis. MARTIN F. ENGMAN.
2. The Surgical Anatomy of the Middle Ear: A Factor in Favor of Early Interference in Suppurative Affections (with Demonstrations). EMIL AMBERG.
3. Ankylostomiasis, the Most Common of the Serious Diseases of the Southern Part of the United States. H. F. HARRIS.
4. The Accidents of Anesthesia: Their Prevention and Treatment. DANIEL N. EISENDRATH.
5. The Relation Between Pernicious Anemia and Achylia Gastrica. HARRY ADLER.
6. Practical Deductions from Experiences in a Hospital for Pulmonary Tuberculosis. B. F. LYLE.

1.—Engman describes an infectious form of eczematoid dermatitis which he believes is a distinct clinical type. Ten clinical reports of cases are included, illustrating the condition. The disease presents in its course papules, vesicles, pustules and a reddened, scaly surface, from which oozes a sticky liquid that stiffens linen and forms crusts. It is not unusual to find both impetigo and eczematoid dermatitis in the same individual. Engman has studied the condition for a number of years in several series of epidemics. The suppurative conditions with which eczematoid dermatitis is often associated always contain staphylococci. The association with suppurative conditions; history of a parent infection and auto-infection; the exciting factor of traumatism and infection, and the results of bacteriological examinations made, all indicate and confirm

the author's belief in the staphylococcic origin of this dermatitis. [T. L. C.]

5.—Adler, discussing the relation between pernicious anemia and achylia gastrica, states that we have to deal in this condition with a toxic process, the stress of the action of the poison or poisons being exerted upon the blood and cord. The resulting hemolysis is confined chiefly to the portal area. The gastric atrophy is regarded by almost all authorities as the primary condition. The gastric atrophy presents then the conditions favorable for the elaboration and absorption of the toxins. The atrophy of the stomach acting, in other words, as a predisposing cause. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

September 11, 1902.

1. Practical Results of the Forensic Serum-Diagnosis in Determining the Nature of Blood. UHLENHUTH.
2. Alcohol and Sublamin as a Means of Disinfection of the Hands. DANIELSOHN and HESS.
3. Observations Concerning the Last Article. FUERBRINGER.
4. Osmotic and Chemical Processes in Human Chyle. H. STRAUSS.
5. A Case of Lepra Tuberosa in Upper Silesia. VIKTOR KLINGMUELLER.
6. Neurasthenic Neuralgias. (Conclusion). E. JENDRASSIK.

1.—Uhlenhuth reports a series of examinations which he has undertaken in connection with the Department of Justice, in order to determine the medicolegal value of the serum-diagnosis of the source of blood. Various blood-stained objects were sent him, some of them having been stained by human, and some by animal blood. The nature of the blood was known to the Department of Justice, but not to the author. As a result of this examination, he says that controls should always be made with the blood of closely related species; that in such cases a diagnosis can be made with positive certainty, provided enough blood is at hand to carry out a proper test. His results corresponded with the definite knowledge of the Department of Justice, and with the results of the control. (To be continued). [D. L. E.]

2.—The authors have investigated the value of the alcohol-sublamin method of hand-disinfection as compared with that of other methods, and decide that it is better than either alcohol alone or sublamin without alcohol. [D. L. E.]

3.—Fürbringer admits the value of the alcohol-sublamin method, but insists upon the importance of his own method. [D. L. E.]

4.—The investigations were carried out on a patient whose thoracic duct had been wounded in an operation for the removal of glands in the neck. The chyle after fasting was yellow and cloudy. After taking moderate amounts of fat, it became, in about an hour and a quarter, white, milky and opaque. The fat was found to be in a peculiar, extremely fine, dust-like form. It never collected on the top like cream, contrary to the experience of some other authors. The osmotic tension has been previously investigated but rarely. Strauss believes that his results demonstrate that an ordinary meal, or the ingestion of about half a liter of water, or the ingestion of 12 grams of table-salt in 500 cc. of water, causes no changes in the osmotic tension. The ingestion of water was followed by a sinking in the osmotic tension, but this probably was entirely accidental. The author believes that the human organism possesses in a high degree the power of keeping the osmotic tension of its chyle constant, in spite of differing alimentary conditions. The contrary results obtained with the hematokrit he considers unimportant, as compared with his results obtained by the use of the freezing-point method. Investigations on animals cannot be considered to exhibit the conditions in man, and the amounts of salt given in some of these investigations produce pathological conditions; indeed, the reports show that the mucous membrane of the stomach was in some of these cases abnormally congested and covered with mucus. [D. L. E.]

5.—The case was a typical one of tubercular leprosy, and was of interest because it was the first reported in this

region, and because the patient had been consorting with numerous other people, without the least thought as to the possibility of transmitting the infection. [D. L. E.]

6.—The diagnosis of neurasthenic neuralgia can usually be established with comparative ease. In the first place, the patients present none of the signs of an actual neuralgia. In the latter condition, with the onset of the attack the face usually becomes flushed, the expression exhibits decided pain, etc. In the neurasthenic form there are none of these characteristic symptoms; there is not the extreme tenderness of the skin and hair—the patients, on the contrary, are likely to rub the region energetically or cleanse their teeth with vigor, to talk volubly about the pain, and to exhibit pain in their descriptions rather than in their appearance. They are likely to grow to consider that they have a serious organic disease as the cause of the pain; and, indeed, it becomes a fixed idea of sensation. It is very important to see that these patients are not treated by dentists with the idea that the pain is due to disorder of the teeth. A number of cases in which this occurred are mentioned. The patients acquired actual dental obsessions. It is very important for surgeons that only true neuralgia should come to operation. True neuralgias are practically always benefited by operative procedures, while these neurasthenic neuralgias are the ones which throw operation for neuralgia into disfavor. Neurasthenic neuralgias are suitable for medical treatment only. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

September 9, 1902. No. 36.

1. The Behavior of Certain Glucosides and the Origin of Double Glycuronic Acids in the Normal Body. A. FALCK.
2. The Influence of Levico Water upon Metabolism. E. SCHREIBER.
3. A Contribution to the Treatment of Dysentery with the Root of Ipecacuanha. J. STRASBURGER.
4. Hydrochlorate of Heroin as an Anaphrodisiac. A STRAUSS.
5. Preserved Preparations of Commercial Yeast in Commerce. R. RAPP.
6. The Action of Atropine upon the Intestines. P. OSTERMAIER.
7. The Question of Rupture of the Uterus in the Early Months of Pregnancy. K. KOBER.
8. Accident Followed by Death. ERDT.
9. A Giant Lipoma. H. PFEIFFER.
10. Acute Formalin Poisoning. A. GERLACH.
11. Postscript to the Report of a Family of Ruminants in No. 31 of this Journal. MUELLER.
12. The Nitrogenous Bacteria and their Significance in Agriculture. JACOBITZ.
13. The Sixty-fifth Birthday of Prof. S. v. Basch. A. STRUBELL.
14. Report of the Concentration Camp at Merebank, Natal. L. HOENIGSBERGER.
15. Contribution to the Control of Sexual Diseases: The Belgian Merkblatt for Sexual Diseases. HOPF.

1.—Falk has undertaken to solve by animal experiments the question whether the substances, which in the body may be converted into glycuronic acid, can be combined with grape sugar to form glucosides. He employed benzyl glucoside and its derivatives, and found that, by the administration of different doses to dogs, glycuronic acid could not be recognized in the urine, but hippuric acid could. A dog, to whom 1 gm. of phenol glucoside was given, showed a few hours later glycuronic acid in the urine. The same dog was given phenol and again the acids were found, even when very small doses were used. Other dogs were given phenol glucoside, and it was found that a large proportion of the phenol could be obtained from the urine, partly in the form of phenol sulphate, partly in the form of phenol glycuronic acid. There seems, therefore, good reason to suppose that the glucoside is broken up in the animal body. The way in which this is accomplished is not yet clear. [J. S.]

2.—Schreiber, after giving an analysis of Levico water, and showing that its principal constituents are sulphuric acid and iron—although it also contains a very minute quantity of arsenic and moderate quantities of other sub-

stances, as calcium, magnesium, zinc, aluminium, etc., has performed a number of experiments in order to determine what effect the administration of this water has upon metabolism. The subject was himself, and he found that during the period there was a considerable accumulation of nitrogen in the system, the difference 100.45 gm. per day before the Levico water was being taken, and 110.47 gm. nitrogen during the time it was being taken. As, however, the total quantity of nitrogen taken in the second period was greater than in the first period, less fat was taken and less was absorbed during the period of Levico water. There were perhaps other explanations for this. The nitrogenous balance, however, showed a slight retention of nitrogen in the system—.05 gm. per day—during the Levico water period. The chief effect appears to be due to the presence of arsenic. [J. S.]

3.—Strasburger reports the case of a patient suffering from amebic dysentery, who, after various forms of treatment had been employed, was given 1 gm. ipecac and 10 drops of tincture of opium twice a day. In spite of the fact that part of the powder was always vomited, the patient improved and gradually recovered. The second patient, with practically the same symptoms, was given ipecac from the beginning, and in 3 days was greatly improved, ultimately recovering completely. [J. S.]

4.—Strauss reports some cases in which he used hydrochlorate of heroin as an anaphrodisiac, including cases of pollution, precocious ejaculation and cases of urethral irritation. [J. S.]

5.—Rapp, believing that the therapeutic efficiency of preparations of yeast depends upon the enzymes that they contain, and that living cells in the preparations are of no particular advantage, he suggests various methods for making permanent preparations. It is possible to dry the yeast and keep the cells alive if it is carefully done. Or they may be dried by various chemical substances including, at the end, ether, and then preserved dead. The zymin is prepared according to the latter method. Four other preparations prepared according to the first method were also investigated, and the results are as follows: The 5 preparations contained water in proportions of 9.3% to 12.4% for the dry, and 5.5% for zymin. Three of the dry preparations did not cause fermentation; one caused moderate fermentation; zymin caused slightly more fermentation. Four dry preparations showed in cultures numerous colonies of yeast, and occasionally colonies of other microorganisms. Zymin showed only a few other colonies, which were evidently not yeast. Nearly all the preparations caused liquefaction of gelatine, and digestion of fibrin. Some of the preparations had marked bactericidal powers, especially zymin, although a French dried preparation was also very effective. Rapp concludes that zymin is probably the best preparation that we now have. [J. S.]

6.—Ostermaier reports a number of cases of inguinal hernia in which after the injection of a considerable quantity of sulphate of atropine hypodermically, reduction was comparatively easy. He believes the effect is due to the drug's tendency to quiet the stormy peristaltic action. The diminution in the caliber of the mesenteric vessels is also of importance. He believes that atropine should be placed first in the treatment of all forms of intestinal obstruction, and that it should be used as early as possible after the onset of the symptoms. [J. S.]

7.—Kober reports the case of a woman who had had one instrumental delivery. She suffered from heart disease, and, upon becoming pregnant again, an attempt was made to empty the uterine cavity at the sixth week, a sharp curette being employed. There was a profuse hemorrhage which recurred when the tampon was removed 2 days later. Careful examination led to the belief that there was a perforation of the uterus, with hemorrhage into the retro-uterine space. The hemorrhage could not be controlled excepting by tamponage. The uterus was therefore again dilated and carefully explored, the perforation was found and total extirpation was, therefore, performed. The perforation appears to have been due, in this case, to faulty technique. The chief indication for total extirpation was the friable condition of the walls of the uterus. In all cases in which abortion is attempted the uterine

confines should be left intact until the pains have occurred.
[J. S.]

8.—Erdt reports a case of rupture of the diaphragm as a result of injury, the man being struck by falling rafters which covered his entire left side. After the injury the patient was profoundly shocked, had pain in the left side, back and left foot. There was frequent vomiting, superficial, rapid respiration, and 4 days later death occurred. At the autopsy the diaphragm was found torn from the ribs for the distance of the breadth of a hand, and as a result there was a hernia of the stomach, the larger portion of the transverse colon and the great omentum into the left pleural cavity. The left lung was compressed, and the heart was dislocated to the right side. The cause appears to have been simple traumatism. [J. S.]

9.—Pfeiffer reports a lipoma occurring on the back of an old woman. The circumference of the base of this tumor was 75 cm. It probably weighed about 30 pounds. The veins in the skin covering it were dilated, and, toward the apex, tortuous, and there were some ulcers near the apex. Later these ulcers gave place to complete disappearance of the skin, the fat being exposed. [J. S.]

10.—Gerlach reports the case of a servant girl who by mistake swallowed a quantity of formalin. A stomach-tube was hastily improvised, the stomach washed out, but the patient did not recover consciousness. The following day she became more conscious, and she finally recovered. At first there was retention of urine, which, later, contained small quantities of albumin. The general symptoms were unconsciousness, vertigo, anuria, rapid respiration and rapid heart action. [J. S.]

11.—Müller, as a result of his description of a ruminating family, received a number of letters describing similar instances occurring in several members of the same families. He concludes that rumination in human beings is not unusual. [J. S.]

12.—Jacobitz calls attention to the fact that it is now certain that the bacteria living in the roots of leguminous plants are capable of combining free nitrogen in the complex compounds. He calls attention to the bacillus Uhlenbach which has been claimed to possess this power, and found that it does, but in such a slight degree that it is practically useless. There are probably many other forms of micro-organisms that possess this power. [J. S.]

13.—Strubell contributes a warmly admiring article upon the career of Prof. S. von Basch, in honor of his 65th birthday. He intended to be a pathological anatomist, but not finding a position, he devoted himself to experimental pathology. [J. S.]

14.—Hönigsberger investigated the concentration camp of Merbank, at Natal, and found that its condition was fairly good, and that the prisoners were in general contented.
[J. S.]

15.—Hopf gives an abstract of the publications issued in Belgium designed to instruct people in the nature and prophylaxis of venereal disease. [J. S.]

September 16, 1902. (No. 37.)

IN MEMORIAM OF RUDOLF VIRCHOW.

1. The Recognition of Simulation in Hysterical Patients and in Accident Cases. R. von HOESSLIN.
2. The Diagnosis of Hour-Glass Contraction of the Stomach. J. DECKER.
3. The Surgical Treatment of Hour-Glass Contraction of the Stomach. A. SCHMITT.
4. The Principles of the Treatment of Syphilis.
E. von DUERING.
5. Investigations Upon the Action of Sublamin (Mercuriol-sulphate-ethylendiamin) as a disinfectant.
M. BLUMBERG.
6. Glycosuria and Tabes. E. MEYER.
7. Varicose Aneurysm of a Branch of the Saphenous Vein, Mistakenly Diagnosed as Fracture of the Thigh.
F. HAHN.
8. A Case of Precocious Menstruation. O. STOEMMER.
9. A Foreign Body in the Rectum. SCHERENBERG.

IN MEMORIAM OF RUDOLF VIRCHOW.

Sum cum ingenio	"Omnis" dixit, "cellula
Morbos illustravit;	E cellula exorta;"
Explorando mortuos	Tum doctrinae lucidae
Vivos adjuvavit.	Patefacta porta.

Vitae persecutus est
Intima arcana
Et ubique somnia
Dissipavit vana.

Quae reliquit opera
Perdu vigebunt—
Magna haec vestigia
Non evanescebunt.

A. V.

1.—Hösslin is convinced that the symptoms of many cases of so-called traumatic neurosis are really the action of overaction and simulation. If they are not recognized, the results are disastrous for the physician as well as for the patient, because the ordinary methods of treatment are of no effect. The most important symptom of simulation is probably the concentric contraction of the so-called tubular visual field. Another valuable symptom is the paradoxical contraction of the antagonistic muscles. This is tested in the following manner: The patient is instructed to bend the elbow and then to cause the hand to approach the face, the physician actively opposing this movement, although not sufficiently to prevent it entirely. If now the physician suddenly lets go the patient's wrist in a normal person, the hand will swing rapidly toward the face. In cases of hysteria during the vigorous contraction of the flexors there is at the same time contraction of the extensors, and when the resistance ceases the arm remains for a moment motionless. Of course, in cases of paresis the resistance must be less. Febrile temperature may be simulated, and Hösslin reports 2 cases in which this occurred. The concentric contraction of the visual field and the paradoxical contraction of the antagonistic muscles are very common in traumatic neuroses. In the course of one year he has observed them together 37 times. Several interesting cases are mentioned in which they were of value in disproving the existence of organic lesions. [J. S.]

2.—Decker reports 2 cases of hour-glass contraction of the stomach due to a chronic ulcerative process. The first, a woman of 28 years, had pain in the stomach and anemia when 16 years of age. She gradually recovered, but had from time to time attacks of nausea and vomiting associated with severe pain. The patient was accordingly placed upon a strict diet with absolute rest and improved at once, but when she attempted to get up the old pain occurred. Lavage was, therefore, attempted, and it was found that, although the first water was clear, the second contained particles of food, and a diagnosis of hour-glass contraction of the stomach was made. This was confirmed by inflation with CO₂. The following interesting symptom was observed. If the stethoscope was placed over the pylorus and pressure exerted over the cardiac region, a gurgling sound of air passing through a narrow orifice could be heard, and if the instrument was placed over the cardiac portion and pressure exerted over the pylorus, the same symptom occurred. Two operations were required after which the patient remained entirely well. The second patient, a woman of 27, had had pain in the stomach 6 years before. This recurred once or twice every year, gradually becoming worse. When the patient vomited there was intense pain. She was relieved for a time, but grew worse again and lavage and inflation showed the existence of hour-glass contraction of the stomach. Decker mentions that it is important that patients should sit or stand some time before the operation is undertaken. The patient should also be washed in an erect position. The differential diagnosis from chronic ulcer is difficult. The course, however, is longer, and the condition is rather one of tension than of cramp. Moreover, the pain lasts for about half an hour after vomiting. The vomiting is peculiar in that small portions are brought up at a time. The situation of the contraction may be suspected by the time at which vomiting occurs after eating. If the contraction is near the esophagus it occurs early; if near the pylorus, late; if in the middle of the stomach, usually 2 or 3 hours after eating. In conclusion, he states that the principal symptoms are, first, the return of clear and then turbid water in washing; the inability to empty the stomach after pouring water into it, a symptom that the pyloric portion is larger than the cardiac portion—and unequal distension when the stomach is filled with gas, the upper portion dilating first and then the lower; the peculiar shape of the shadow when the stomach is illuminated from within, and the peculiar murmur above described. It

is important in these cases not to be satisfied with a simple diagnosis of nervousness. [J. S.]

3.—Schmitt reports the operation upon the first of Decker's cases, and upon 2 other patients suffering from **hour-glass-contraction of the stomach**. In Decker's case the anterior surface of the stomach was found to be reddened, and there were some delicate adhesions upon it. The contraction was usually broad—about 7 cm. The 2 sacs indicated considerable dilatation of the stomach. A gastro-anastomosis was considered but on account of the rigidity of the scar was too difficult. Gastroplasty was, therefore, performed, in the course of which it was found that the stenosis freely permitted the passage of the finger. No other ulcers were observed on the mucous membrane of the stomach, and the operation completed produced an opening 3 or 4 fingers' breadth in diameter. Subsequently the patient showed signs of perigastritis, and another operation was performed and a hard band of fibrous tissue was found passing over the pylorus which had caused some obstruction. The previous stenosis had been relieved, and the patient subsequently made an excellent recovery. Schmitt's first case was that of a man of 32 years, who had had obstinate catarrh of the stomach followed by persistent pains. The symptoms were characteristic of hour-glass contraction, the fluid returned during lavage, being first clear and then turbid. An operation was performed and a carcinoma found in the small curvature dividing the stomach into 2 portions, the cardiac being twice as large as the pyloric. The tumor was adherent to the liver and it was found impossible to remove it. Posterior gastro-enterostomy was, therefore, performed, and 6½ months later the patient was in excellent condition. At the operation on the third patient it was found that the stomach was contracted about its middle portion. It was also adherent to the surrounding structures and gastro-anastomosis was not possible. Gastroplasty was also impossible, and, therefore, posterior gastro-enterostomy was performed, the patient making a complete and permanent recovery. Schmitt believes that the best operation is gastro-enterostomy: this, of course, is only possible upon the cardiac end of the contracted stomach. Gastro-anastomosis also gives very good results, but has certain disadvantages, particularly that it does not help the upper atonic portion to evacuate its contents. Gastroplasty has the disadvantage that a large portion of the operation must be performed in scar tissue. In only a few cases is it possible to do a resection of the stenosed portion.

[J. S.]

4.—von Düring, after calling attention to the unsatisfactory character of statistics regarding syphilis, discusses his experience in treating the members of the Foreign Colony in Constantinople for this condition. Syphilis of the central nervous system he finds is fairly common in the excitable south European races. He believes that we can often succeed with fairly small doses of mercury. He prefers the intermittent administration of this drug by hypodermic injections. For administration he prefers the salicylate of mercury, giving 2 injections per week, each 0.08 to 0.1 gm. In over 10,000 such injections he has never seen any disagreeable results. This treatment is continued until all symptoms disappear, and then for a short time afterward. For the mucous patches, cauterizing with chromic acid seems to be the best. After the injection the patient must take from 0.5 to 1 gm. of potassium iodide daily for a month. Treatment is then stopped and the patient examined at intervals of 2 weeks. Then light treatment is continued for 2 or 3 years. His results in a small number of cases have been excellent. [J. S.]

5.—Blumberg discusses the value of mercuriol, **mercurial sulphate-ethylendiamin** for the purpose of disinfection of the skin. He concludes, as a result of some careful experiments, that it is equally as efficient as corrosive sublimate, does not irritate the skin, even in the strongest solution, acts more deeply than the sublimate, dissolves rapidly in water and may be prepared in the form of pastils which also dissolve very readily. [J. S.]

6.—Meyer reports the case of a man who had **diabetes** and some symptoms of **tabes dorsalis**. The glycosuria could not be controlled by diet and was not increased by the administration of sugar. In view of this Meyer believes

that the case represents the glycosuria due to involvement of the medulla oblongata. [J. S.]

7.—Hahn reports the following case. A woman of 39, after the birth of her eighth child, developed a tumor in the left groin. This was supposed to be a hernia and a truss was applied, which caused intense pain. Inquiry developed the fact that the tumor had lasted for years but had become large only lately. A diagnosis of incarcerated hernia was made and an operation performed. It was then found to consist of a mass of **varices springing from the saphenous vein**. The patient recovered without difficulty. The difficulty in the differential diagnosis of these cases is considerable. With regard to the treatment, operation can nearly always be done with local anesthesia. [J. S.]

8.—Stömmer reports the sixty-fifth case of precocious menstruation. The child was born of normal parents. At the end of the sixth month it was noted that her breasts were abnormally developed, although otherwise she did not develop rapidly. At the end of a year and a half she menstruated. From this time on she grew rapidly and at the age of 4 years weighed 42 pounds, menstruation occurring regularly every four weeks. There were signs of rachitis in the skeleton, but otherwise she was well-nourished and normal. At the age of 8 years menstruation ceased suddenly, the breasts gradually grew smaller and at this time she was not more fully developed than other children of this age. Her mind was rather active. As predisposing factors Stömmer suggests that perhaps in early life there was an infection of the genitalia causing ovulation, that the rachitis was an additional factor, and that the fecundity of her ancestors might also have contributed. In 6 cases of precocious menstruation autopsies have been obtained, and in 5 of these tumors of the internal genitalia were discovered. In the sixth case there was hydrocephalus. In other cases tuberculosis, hydrocephalus, rachitis and inheritance were present as possible etiological factors. [J. S.]

9.—Scherenberg reports the following case. A man of 30 came to the clinic stating that a small bicycle-tire pump had slipped into his rectum. This was extracted with some difficulty, and proved to be 16 cm. in length and 23 mm. in diameter. No injury appeared to result. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

October 6, 1902. (39 Jahrgang, No. 40.)

1. Acroparesthesia Following Traumatism. MAX SOMMER.
2. The Tsetse Disease in Togo, West Africa. HANS ZIEMANN.
3. The Unity of Streptococci. FRITZ MAYER.
4. The Histological Changes in Mercurial Dermatitis, with Remarks on the Local and Blood Eosinophilia Observed. ERICH HOFFMANN.

1.—Sommer reports the case of a man of 45, who had his left hand crushed in an accident. Three months later he noticed that his hand "went to sleep," describing a feeling as of "pins and needles." The hand was stiff and somewhat swollen at times. Examination of the wound showed no cause for the paresthesia. He had worked for years among steam boilers, being exposed to high temperatures. Thus, the wound, or beginning arteriosclerosis may explain the **acroparesthesia**. [M. O.]

2.—Ziemann discovered the **tsetse disease in dogs and horses in Togo and Kamerun**. The infection is spread by the tsetse fly, and the parasite is found in the blood of the animal affected. A full description of the details of its reproduction, staining and other peculiarities follows. [M. O.]

3.—Mayer examined the **streptococci** from cases of tuberculosis, measles, erysipelas, scarlet fever, abscess, sepsis, follicular tonsillitis, ulcerative endocarditis, and from the glands of a horse regarding their morphology, virulence, hemolysis, growth in the filtrate and immune serums. Some variation was noted in all. Mayer concludes that, while the human pyogenic streptococci are probably a single species, those of scarlet fever and acute articular

rheumatism are different, as are those of animals. Many details of the experiments are given. [M. O.]

4.—Hoffmann reports in full the case-histories of 2 patients with **mercurial dermatitis**. In one the mucous membranes of the mouth, pharynx and genitalia were affected, as were the palms of the hands and the soles of the feet, appearing after 40 inunctions. In the other the dermatitis was widespread, and mercury appeared in the urine after internal administration. In both cases the pulse became slower and irregular, and **eosinophilia** was marked locally and in the blood. In other cases the condition followed mercurial injections. Mercury may have a cumulative effect in persons with an idiosyncrasy to the drug. The eosinophilia noted with mercurial erythema is slight; with mercurial dermatitis it is marked. Full histological descriptions are given. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

September 25, 1902. (XV. Jahrgang, No. 39.)

1. The Clinical and Hygienic Significance of the Primary Extragenital Syphilitic Affection. I. NEUMANN.
2. Morphinodipsia. R. von KRAFFT-EBING.
3. The Symptomatology of Duodenal Stenosis.

FELIX REACH.

1.—Among 4,634 patients with **primary syphilis**, 207 showed **extragenital**, and 157 **perigenital primary lesions**, 4.5% of the entire number. The lips, fingers, hands, tonsils and chin were most frequently affected. In age the patients ranged from 5 months, an infant with an umbilical lesion, to 59 years, a man with sclerosis of the lower lip. In the literature, patients with extragenital syphilis have been noted as old as 78 years. Physicians, dentists and nurses may easily acquire syphilis, while attending patients. A large number of cases follow, showing the mode of infection, and a detailed description of the sclerotic lesions, with the differential diagnosis which is often difficult, is given. Beside the common manner of infection, by utensils, clothing, kissing, towels, etc., extragenital lesions may be venereal in origin. In such cases the diagnosis is not so difficult. Neumann mentions many interesting details. [M. O.]

2.—Krafft-Ebing reports in detail the case-history of a man of 35, of neuropathic ancestry, who first used morphine 10 years before, for neuralgia. After a fall from his horse he had attacks of vertigo and again took morphine for this. Later, with attacks of melancholia, he again took morphine in large doses, from time to time. He showed signs of hysteria and epilepsy, but between attacks he was comparatively well. Krafft-Ebing considers this a case of **morphinodipsia**. [M. O.]

3.—Reach reports the case-history of a woman of 53, with epigastric pain which appeared suddenly 2 years before. This returned at intervals, with vomiting and a dull pain under the edge of the ribs on the right side. Examination of the gastric contents showed nervous hypersecretion. She noted regurgitations, anorexia, headache, vertigo and constipation. A tumor was plainly palpable in the epigastrium. Operation disclosed a pyloric mass suggesting carcinoma, which was removed by anterior antecolic gastroenterostomy. She died soon after operation. Autopsy showed **duodenal stenosis** following a cicatricial stricture from perforation of the gall-bladder which contained calculi, and from pericholecystitis. A review of the literature follows. [M. O.]

October 2, 1902. (XV. Jahrgang, No. 40.)

1. Does the Active Substance of Hemolytic Serums Originate in the Mononuclear Leukocytes.

PAUL DOEMENY.

2. The Early Stage of Syphilis of the Mammary Gland.

RUDOLF MATZENAUER.

3. Metastatic Inflammation of the Conjunctiva in Gonorrhea. ANTON KURKA.

1.—Dömeny, who reviews the literature upon recent investigations in hemolysis, describes 18 experiments in detail. Extracts of washed leukocytes were much less active than were the living washed leukocytes in hemolytic

power. Splenic and lymphatic extracts were generally inactive. Unwashed extracts were more powerful than those which were washed. His results not only do not substantiate Metschnikoff's hypothesis that the active hemolytic principle originates in the mononuclear leukocytes, but rather show that the whole question still remains unexplained. [M. O.]

2.—After a brief review of the 12 cases, thus far published, of **syphilis of the mammary gland in its early stages**, Matzenauer describes a case of gumma of both breasts in a girl of 17, showing bilateral diffuse mastitis, with supuration of the right breast. Another case in a man of 43 follows. Many details are given. [M. O.]

3.—Kurka reports 2 cases of **metastatic gonorrheal conjunctivitis** in young men. Gonococci were found in the discharge. Metastatic conjunctivitis is rare, but 20 cases having been reported. It is noted in young men, and recurrence is common. Deep episcleral injection occurs, often with gonorrheal iritis, polyarthritis, etc. Three theories have been proposed to explain the condition, the metastatic theory, that of secondary or mixed infection and the toxin theory. [M. O.]

DEUTSCHES ARCHIV FUER KLINISCHE MEDICIN. Heft 2, B. 72.

4. The Stokes-Adams Disease. JACQUET.
5. Chylous Ascites. PAGENSTECHER.
6. The Myasthenic Symptom Complex. KOLLARITIS.
7. Gonorrheal Arthritis. MARKHEIM.
8. Brief Communications: The Color Changes in the Red Bloodcells in Tertian Intermittent Fever. RUGE.

4.—Jacquet reports several cases of **Stokes-Adams disease**. The first patient, a shoemaker, 30 years of age, when about the age of 28, noticed that after slight effort he became greatly fatigued. Finally he had vertigo and fainted, and it was noticed by the physician that his pulse beat 17 times per minute. These attacks occurred from time to time, especially when he was emotionally excited. He would fall unconscious, become deadly pale, there was involuntary discharge of urine, and a peculiar fetid, penetrating odor issued from the mouth, which persisted for several hours after the attack. No convulsions occurred during the seizures. They were followed by heaviness in the head, but no other symptoms occurred. Examination of the heart showed considerable enlargement, a soft systolic murmur and occasionally a reduplication of both sounds was heard. There was pulsation in the jugular veins which was more frequent than the pulsation of the heart. The pulse varied from 24 to 32, and the breath was exceedingly fetid. Under treatment, especially with mercury and potassium iodide and laxatives, the pulse increased to a rate varying from 32 to 45 per minute, the area of cardiac dulness decreased and the attacks ceased. Jacquet gives an analysis of the literature calling attention particularly to certain interesting symptoms, particularly the semi-beats of pulsation in the jugular vein. He thinks syphilis plays an important role in the etiology; that the disease may occur in young as well as in old; and that the seat of the lesion is doubtful. Charcot has suggested the medulla; Stokes believes it to be the heart muscle, and Huchard the circulatory apparatus of the heart with disease of the cerebral vessels. Jacquet calls attention to a certain similarity in the clinical course of Stokes-Adams disease and intermittent claudication. The treatment is not satisfactory. Some improvement can be obtained by employing nitroglycerine and oxygen inhalations. When there is a syphilitic history the patient should be given corresponding treatment. [J. S.]

5.—Pagenstecher gives a most elaborate discussion of **chylous ascites**. This consists of a milky exudate into the peritoneal cavity due to a mixture of chyle. There may be a chyliform ascites due to the formation of fat in the cells of the serous membranes, to a fatty alteration in an inflammatory exudate, or to a milky appearance due to other conditions, such as a mixture of mucoid substances. The causes of genuine chylous ascites may be rupture, congestion, as in heart disease, thrombus of the veins, disease

of the vessel walls, tumors in the mediastinum, tumors below the diaphragm pressing upon the receptaculum chyli, and tumors involving the distribution of the chyliferous ducts. He quotes cases illustrating these different forms. He finally describes a case of his own occurring in a child, 5 months old. At the age of 3 weeks there was some swelling of the abdomen apparently without pain and without disturbance of any of the normal functions. Finally, at the age of 5 months paracentesis was performed and a milky fluid was obtained. This was repeated and then laparotomy was performed and numerous cysts found in the mesentery. The patient recovered well from the operation, there was no reappearance of the fluid, and apparently she is now perfectly well. The specific gravity of the ascitic fluid was 0.931. It contained 3.6% of albumin, 2.9% of fat, and 0.32% of sugar. The case was apparently due to some obstruction in the duct that was not discovered at the operation. Regarding the etiology of this condition, Pagenstecher states that it is always secondary. It may occur at various ages and in either sex. Among the accompanying symptoms there is sometimes emaciation due to a carcinoma. The character of the fluid varies. The specific gravity is usually low; bile is sometimes present. A diagnosis can only be made by means of paracentesis. The prognosis depends upon the cause. The treatment consists in paracentesis, which is palliative, and operation which may be curative. The literature has been carefully reviewed. [J. S.]

6.—Kollarits reports the following cases. A man of 30 years developed distinct disturbances of co-ordination, cerebellar gait, loss of the tendon reflexes, some ptosis and blindness due to papillitis. The myasthenic reaction was very distinct. The condition remained stationary, then grew worse, and the patient died. At the autopsy a sarcoma was found in the cerebellum, causing considerable pressure, and the pia mater of the cord showed sarcomatous infiltration. There was distinct degeneration in the posterior columns of the cord. The second case, a woman of 22 years, after an attack of influenza, became weak, very easily fatigued, there was loss of visual power, vertigo and some disturbance of hearing. There was even fatigue if the patient spoke for a long time. There was also some cerebellar ataxia, intention tremor and retrobulbar neuritis. It is possible that in addition to the myasthenia a tumor in the cerebellum was present. Some of the most important symptoms of this condition are the sudden attacks of fatigue and weakness, sometimes associated with dyspnea, very similar to those occurring in paroxysmal familial paralysis. Kollarits gives the following classification of conditions giving rise to the myasthenic symptom complex. Familial diseases, including Goldflam's familial paralysis; cases that commence with fever which are to be included under the head of polyencephalomyelitis; cases with lesions in the brain and cases which occur as the initial manifestation of some form of disease the diagnosis of which can only be established after long observation. He does not think that a negative anatomical examination is sufficient to prove that the case is one of true myasthenia. On the other hand, atrophies and reactions of degeneration may occur in myasthenia, and the exhaustion of the muscles and the myasthenic reaction have only a diagnostic value. He reports a case of a Jew, 48 years old, who used alcohol to excess; at the age of 46 he began to have weakness of the voice from which he suddenly recovered. Later there was weakness in the arms, difficulty in drinking and great fatigue after walking a short distance. The examination showed von Graefe's sign, typical myasthenic reaction and active tendon reflexes. Also the case of a Jewess of 32 years, who had had chlorosis, and who, at the age of 26, developed weakness in the legs. There was then diplopia, ptosis and difficulty in chewing and swallowing. The symptoms all became much worse during menstruation. The tendon reflexes were active, and there was paresis of the muscles of the face. Often the patient had dyspnea so severely that asphyxiation seemed likely. One of her sons had bled to death during circumcision. [J. S.]

7.—Markheim reports 52 cases of gonorrheal arthritis of various forms. In several instances there was reason to believe that a particular form of gonococcus had a predisposition to give metastasis to the joints. Not infrequently

several joints were affected at once, the knees more frequently than the others. The treatment consisted in rest in bed, careful diet, local treatment of the urethritis or cervicitis, and cold applied to the inflamed joint, later substituting ichthyol massage, hot air and sand bags. Salol was sometimes given internally. In one case operation was required for a persistent effusion. The results were fair, although ankylosis was rather common, only 13 cases being completely cured. Complete ankylosis occurred in only 5 cases. In 7 there was some stiffness, and in the remaining cases slight swelling. [J. S.]

8.—Ruge insists that he recognized Schuffner's priority in the staining of malignant parasites, and gave him full credit in his original article. [J. S.]

ZEITSCHRIFT FUER HEILKUNDE.

August, 1902. (Volume 23, No. 8.)

1. A Contribution to the Clinical Study of Myasthenic Paralysis. CARL HOEDLMOSER.
2. The Differential Diagnosis of Primary and Secondary Pleural Tumors, With Especial Reference to the Results of Exploratory Puncture. JOSEF SORGO.
3. A Case of Tetanus. HUGO NEUMANN.
4. The Theory of Agglutination. R. KRAUS.

1.—Hödlmoser reports in detail the case-history of a girl of 18, with myasthenic paralysis. She gave a history free from syphilis or nervous disease. She suddenly lost power in her left hand, with ptosis of the left eye and diplopia. A week later increased tendon reflexes were observed, with increasing weakness. She noted inability to speak, chew or swallow correctly, regurgitating food through the nose. Myasthenic reactions were found with the faradic current. Death followed 18 months after the first symptoms. The autopsy showed no changes in the brain, moderate congestion of the cortex, very narrow basilar bloodvessels, large thymus, large lymphglands of the tongue and intestines, pulmonary edema, bronchopneumonia and coprostasis. Minute histological examination showed nothing abnormal in the nervous system. Hödlmoser believes that, in this case of bulbar paralysis without anatomical changes, termed by Oppenheim myasthenic paralysis, the resistance of the nervous system was lowered congenitally. The pathological process is probably nuclear, though it has not yet been found. [M. O.]

2.—Sorgo reports the case-histories of 5 patients with pleural tumors, 3 carcinomata and 2 sarcomata. When the pleural fluid contains many epithelial cells, the presence of a pleural neoplasm should be suspected, especially when these cells also appear in the connective tissue. They may be polymorphous, with large oval or irregular nuclei, many nuclei, mitotic or amitotic changes or giant vacuoles. Besides, the fluid may contain particles of the tumor. The peculiar changes found upon staining, which help to make the differential diagnosis of primary and secondary tumors of the pleura, are described in full. Hemorrhagic or chylous effusion does not generally occur with a neoplasm. In secondary cancer, much sediment, in primary endothelioma, very little sediment is found in the liquid. This sediment should be examined histologically in the fresh state, also after fixation and staining. The details of the technique are given. [M. O.]

3.—Neumann reports a unique case of tetanus in a boy of 14, following a wound of the forehead. Trismus, left-sided facial and hypoglossal paralysis followed. Complete recovery resulted. The occurrence of hypoglossal paralysis in tetanus has never been reported before. Neumann believes that the 2 injections of antitoxin given had no effect on the disease. The treatment consisted in rest in the dark, chloral, bromides and baths. He concludes that a long incubation gives a favorable prognosis, in spite of the severity of the symptoms; that the prodromal symptoms may be general or psychical; that besides facial paralysis, hypoglossal paralysis may occur; that it has not been proved that these paralyzes are nuclear; that the tetanus toxin probably reaches the ganglion cells of the central nervous system along the peripheral nerves; and that, besides serumtherapy, antispasmodic treatment is of value in tetanus. [M. O.]

4.—Kraus reports his experiments upon agglutination,

which is characterized by the free precipitation of substances held in suspension. Agglutination does not depend on the vitality of the bacteria. Many details are given and the literature is fully quoted. [M. O.]

ZEITSCHRIFT FUER KLINISCHE MEDICIN.

Bd. XLV., Hefte 5 and 6.

1. On the Changes Occurring in Adenine in the Animal Organism. A. NICOLAIER.
2. A Rare Form of Amyloid and Hyaline Infiltration of the Circulatory and Digestive Apparatus. F. STEINHAUS.
3. The Importance of the Lymphoid Cells in Normal Blood-Formation and in Leukemia. A. WOLFF.
4. On the Importance of Trauma in the Etiology of Disseminated Fat-Necrosis. C. ROOSEN-RUNGE.
5. The Action of Urotropine. A. GOETZEL and G. SALUS.
6. The Demonstration of Bromine in the Urine and Saliva. G. STICKER.
7. On Severe Abdominal Symptoms in the Beginning of Pneumonia or Pleurisy. P. HAMPELN.
8. Biblic-Talmudic Pathology. J. PREUSS.
9. On Dyspeptic Asthma. M. EINHORN.

1.—The experiments reported consist in a further study of the effects previously determined by Minkowski, that **adenine causes deposits in the kidneys**. These deposits the latter considers to be uric acid. Nicolaier, however, finds that they are 6 amino- 2.8 dioxypurin, the determination of this fact being carried out by Emil Fischer. The animals experimented upon were rats. Nicolaier considers that the substance found by Minkowski was perhaps uric acid; but that, if this is the case, the difference in results was due to the difference in the animals used. [D. L. E.]

2.—The remarkable facts in the case were the peculiar characteristics of the amyloid infiltration and its peculiar localization and, further, the absence of any satisfactory cause. The chief clinical symptoms were those of gastrectasia with absence of HCl fermentation in the stomach and hemorrhages, and the diagnosis was a probable malignant tumor of the pylorus. At post mortem, the heart was found dilated. There were numerous hemorrhages. The **epicardium was covered with small nodules, which looked like miliary tubercles**. The same was true of the endocardium. The cut surface had a homogeneous, glassy look. The stomach was dilated, and the pylorus contracted. There were numerous erosions. The wall of the stomach also looked homogeneous and glassy, and the mucous membrane showed, also, large numbers of miliary-tubercle-like nodules. The intestine showed similar conditions. The microscopical examination showed that the nodules were composed of amyloid and hyaline material. There was no cause for it determined at the post mortem. A few similar cases are referred to, and there is a discussion of the nature of amyloid and hyaline infiltration and their pathogenesis; the author strongly leans toward the view that there may be very slight chemical differences between amyloid and hyaline substances, he believes, however, that the differences are perhaps largely physical. [D. L. E.]

3.—Wolff contributes an argumentative article, with the conclusion that the differentiation of lymphocytes and granulocytes is not supported by the most recent work. He insists upon the existence of the indifferent lymphoid cell, described by himself and Michaelis, which can be differentiated from the lymphocyte. He believes that **bloodbuilding begins with the "indifferent lymphoid cell,"** from which erythrocytes, large and small lymphocytes, and the various granulated cells are derived. He considers it to be definitely determined that the spleen has a myeloid function. In postembryonal life the various organs of the hematopoietic system are divided off into special kinds of work, the bone-marrow producing granulocytes; the lymphglands, lymphocytes, the spleen, large mononuclear cells, these being actively engaged in phagocytosis. But there are indifferent lymphoid cells in all of these organs, and they may act vicariously for each other. The author believes, therefore, that it is possible for either form of leukemia to be transformed into the other variety. Leukemia is not a formation of tumors with metastasis from these, but is a metaplasia of the hematopoietic organs arising from an unknown cause [D. L. E.]

4.—Roosen-Runge gives a brief discussion of the literature

concerning the influence of trauma in the production of fat-necrosis, and refers to cases previously briefly cited by Simmonds. He describes these cases in considerable detail, the main points of which, however, are already known, and decides that one must class fat-necrosis among those diseases in the etiology of which trauma plays an active role. In medicolegal work one must consider the possibility that the trauma was the actual cause of death, when fat-necrosis is found as one of the chief lesions. [D. L. E.]

5.—The authors present some clinical studies of urotropine and of its excretion. They find that it is well borne in doses as large as 20 grains per day. In fresh urine it is frequently impossible to obtain marked reactions for urotropine. The results of the reactions for urotropine and formaldehyde did run parallel with each other. The authors **could not determine any marked difference in the therapeutic effects with different reactions of the urine**. In their hands urotropine has proved to be an important and valuable antiseptic. When the result was not satisfactory, it was usually apparently on account of too small dosing. [D. L. E.]

6.—Sticker believes that it is possible to determine the presence of bromine, even when all the other halogens are also present. Iodine may be separated out first, but this is not absolutely necessary. For getting rid of the iodine one can add sulphuric acid saturated with the fumes of nitrous acid. After this some drops of carbon disulphide are shaken with the mixture. The bromine is then determined by adding a little chromic acid and sulphuric acid, heating to the boiling-point, and holding over the retort in which the mixture has been heated a piece of filter paper colored with fluorescein solution. If there are but traces of bromine present, the paper will become reddened. **Bromine appears in the saliva after very large doses of bromides**. It is never found in the saliva or urine unless bromides have been previously used. When these had not been used, the author never found it in the brain, liver, kidney, thyroid or muscles. He has, however, repeatedly found small amounts of iodine in the urine, even when it had not been administered or taken in the food. He has also found it in human testicles and cows' milk. [D. L. E.]

7.—Two cases are reported, in which there was a primary violent pleurisy with fatal issue; also one of seropurulent pleurisy with recovery, one fatal case of pneumonia and one that recovered. In all, at the time of onset, the clinical appearance was wholly that of peritonitis or intestinal occlusion. The symptoms of the actual disease were absent, and physical examination in the very beginning was entirely negative, as far as the chest was concerned. The chest signs, however, developed soon afterward. Some other cases are mentioned in which it was probable, from the clinical course, that similar conditions existed. [D. L. E.]

9.—Previously abstracted.

CENTRALBLATT FUER INNERE MEDICIN.

August 2, 1902.

Concerning the Occurrence in Pneumonia of Albuminous Bodies in the Urine which Alter the Coagulation of the Blood. J. LOCHBIHLER.

The author finds that there are present in the urine of pneumonia patients, in the precipitate produced by sodium chloride, a number of substances (of which he could isolate a nucleoprotein and a proteo- and a heteroalbumose), all of which influenced coagulation. After the removal of all bodies precipitated by sodium chloride and saturated with ammonium sulphate, albumoses were isolated; but they did not influence coagulation. It was probable that the nucleoprotein and the albumose found were derived from the leukocytes in the exudate, as it is known that the leukocytes contain a nuclein body which increases coagulation and an albumose which interferes with coagulation. [D. L. E.]

August 16, 1902.

On the Excretion-Curve of the Coagulation-altering Albuminous Bodies Found in the Urine During the Course of Pneumonia. R. KUN.

The author refers to the above article of Lochbihler, and he contributes his own work, which was undertaken to determine the course of the excretion of these bodies. He divides them into those precipitated by

sodium chloride and those precipitated by acetic acid. He finds that the latter rise until a day or 2 before the crisis, and then fall rapidly, disappearing at about the time of the crisis. Those precipitated by sodium chloride rise somewhat more slowly, reach the highest point on the day before the crisis, and then fall somewhat more slowly. Both kinds appear again in small numbers after the crisis. Kun believes if, 3 or 4 days after the onset of pneumonia, there is no increase in the albumoses precipitated by sodium chloride and no marked increase in those precipitated by acetic acid; or if, after both decrease in amount, one or both of them again increase, we may consider that the case is not going to end by crisis. Apparently, fatal cases show a smaller excretion of these substances. [D. L. E.]

NEUROLOGISCHES CENTRALBLATT.

July 16, 1902. (No. 14.)

1. The Subcortical Origin of Isolated Muscular Spasm; Contribution to the Symptomatology of Tumors of the Corpora Quadrigemina, with Remarks Upon the Course of the Central Segmental Tract. J. SORGO.
2. A New Method For the Preparation of Histological Preparations, Particularly in the Region of the Nervous System, by Means of Agitation or Centrifugation of the Sections. Preliminary Communication.

F. REICH.

3. Hysterical Blindness. H. KRON.

1.—Sorgo reports the case of a man, 28 years old, who developed impaired vision and slight weakness of the left arm and leg. When examined it was found that the muscles of the right eye were completely paralyzed, and there was almost complete paralysis of the muscles the left eye. Both pupils were wide, but did not react. The reflexes were increased. The patient was not improved by a course of mercurial treatment. Later he had clonic twitching of the left thumb that soon involved the index finger. Other muscles of the left arm were also involved. This spasm persisted for several months. The patient developed cough with expectoration, the visual fields became more and more contracted, and finally the patient died. At the autopsy a solitary tubercle was found in the anterior corpora quadrigemina, with compression of the right crus cerebri and chronic internal hydrocephalus. There was also basilar leptomeningitis. The paper is still unfinished. [J. S.]

2.—Reich, after discussing some of the objections to imbedding, and the difficulty of obtaining sufficiently thin sections without it, suggests the following method. Small sections of the nervous system which may have been previously slightly macerated are vigorously shaken, and then the milky fluid centrifugated. The fluid contains ganglion cells, neuroglia and pus cells, etc. The modification of this method consists in cutting thin sections of hardened nervous tissue, placing a number of them in water and centrifugating. The sediment is then stained by the ordinary methods, washed in water, imbedded in balsam and then smeared upon cover-glasses. It is possible by this method to obtain transverse sections not more than 5 mm. in thickness, of unimbedded tissue. [J. S.]

3.—Kron has collected all the cases of hysterical blindness from the literature. He divides them into 3 forms: The transitory, lasting a few days; the brief, lasting 2 or 3 weeks, and the persistent, lasting from 4 months to 10 years. There are also intermittent and relapsing forms. The great majority of all cases occur in women. They most commonly occur between the ages of 10 and 30, none occurring after 40 years of age in women, and 3 out of 10 after 40 years of age in men. The attack usually occurs suddenly; headache is often a premonitory symptom. Not infrequently the patients have suffered from previous hysterical attacks, but in many cases the amaurosis is the only symptom present. The pupils may be affected in various ways. The eyegrounds are not affected. The course is fairly good. Treatment should be directed only to the physical condition. In some cases simulation may occur. [J. S.]

DEUTSCHE ZEITSCHRIFT FUER NERVENHEILKUNDE.

Band 21. Hefte 5-6.

21. Psychogenic Pseudo-Meningitis. STARCK.
22. Peri-ependymal Proliferation, Canal Formation and Abnormal Developmental Processes in the Spinal Canal of Children. ROLLY.
23. Criticism of Subcortical Sensory Aphasia. STROHMAYER.
24. Clinical and Anatomicopathological Contribution Upon Aphasia. MINGAZZINI.
25. Diffuse Sarcoma of the Pia Mater of the Whole Central Nervous System. NONNE.
26. A Contribution to the Knowledge of Disease of the Spinal Cord and Degeneration of the Anterolateral Tracts. ZAHN.
27. Contribution to the Symptomatology and Diagnosis of Tumors of the Brain and of Chronic Hydrocephalus. FINKELNBURG.

21.—Starck reports the following extraordinary case. A man, 31 years of age, was admitted to the hospital apparently suffering from some rigidity and pains in the neck. When examined, it was found that he was suffering from lupus, and that he had had headache, vertigo, pain in the back, but no fever. Three days later he had vomiting and then a severe chill and some tinnitus. The stiffness in the neck continued, there was some sweating, persistent vomiting and loss of control of the bladder. After admission to the hospital the patient was somnolent and all the reflexes were greatly increased as well as all forms of sensation. A diagnosis of cerebrospinal meningitis, probably tuberculous in nature, was made. The patient could not sleep, from time to time he had convulsions, and there was some gnashing of the teeth; finally distinct trismus developed. The urine obtained by catheter was normal. The pulse was abnormally slow and there was no fever. The symptoms, however, were somewhat suspicious. The convulsions were atypical, and the patient's complaints of pain appeared excessive. An attempt was therefore made to hypnotize him, which succeeded, and as a result of vigorous suggestion he recovered at once and was able to walk about and eat at the table with the other patients. His recovery was complete, and he was discharged. A careful history was finally obtained. He had been an attendant in one hospital and subsequently had been a patient in a number of others in which a diagnosis of meningitis had usually been made. His experience in Heidelberg, under Starck, had been the sixth as a patient, and subsequently it was possible to trace his course in 8 other hospitals. Finally, in one of these, an operation was performed, the spinal canal opened, and the cerebrospinal fluid found to be under considerable pressure. He did not improve as a result of this until he was transferred to another hospital, where he was treated firmly, and finally became able to work. Altogether, in his various experiences in hospitals, lumbar puncture was performed 5 times, and in only one case was there a doubtful elevation of pressure. Starck collects the reports of 17 cases from the literature which, together with his own and another case of like nature, he uses for the purpose of giving a sketch of the clinical history of the disease. There is usually an aura lasting several days or weeks, characterized by discomfort, headache, nausea, vomiting, loss of appetite and depression. Then follow a chill, delirium, fever, headache, stiffness of the neck and back, tenderness over the spinal column, and cramp-like twitching of the muscles. Often there is strabismus, narrow pupils, slow pulse and various paralytic and vasomotor disturbances. Often the body is retracted and there is persistent vomiting and obstinate constipation. The delirium increases and finally passes into coma, then suddenly the patient has a prolonged period of sleep and awakes entirely well. Sometimes, however, the symptoms diminish gradually. The disease occurs much more frequently in women, 17 out of 19, and in early adult life, 2 cases having occurred in childhood, and 2 after 45 years of age. There are often symptoms of nervous heredity, and occasionally of tuberculous antecedents. The diagnosis can often be suspected when hysterical stigmata are present. The difficulty most frequently occurs in connection with tuberculous meningitis, of course, although occasionally pseudomeningitis and traumatic tetanus may be

suspected. Starck prefers the name "**psychogenic meningitis**" in order to distinguish it from the condition called pseudomeningitis by German writers, which occurs particularly in infectious fevers. [J. S.]

22.—Rolly examined the spinal cords of 2 children suffering from so-called general congenital spasticity of the muscles, and found certain peculiar changes in the cord, characterized by diffuse proliferation of the neuroglia tissue and some leptomeningitis. In addition to this there was in the first case apparently a doubling of the central canal with proliferation of the neuroglia cells, particularly in the posterior one. From time to time horizontal canals were found uniting these two. Carefully studied serial sections seemed to show that the cells surrounding the central canals, which in all respects resembled glia cells, were derived from those of the ependyma. The size of the canal varied greatly; sometimes it was obliterated, at others quite large. In the second case of the same condition practically similar changes were found, particularly the alternation of dilation with obliteration. He, therefore, carefully studied the spinal cords of several other children, and in one of these found some proliferation of the neuroglia in the central canal. This child was an idiot. There was a general tremor when it sat up, and its movements indicated some spasms of the muscles. In this case there was a variable number of canals at different levels of the spinal cord. It is not impossible that the changes in this case may bear some relation to those found ordinarily in syringomyelia. He does not attempt to determine whether or not there is any relation between them and syphilis. [J. S.]

23.—Strohmayer reports some cases of **subcortical sensory aphasia**. The first, a man of 36 years, who had had luetic infection 8 years before, 6 years after this noticed loss of memory and rapid intellectual fatigue. He then had an epileptic attack, followed by a second attack with transient paralysis of speech and pain in the right ear. After a third attack he was maniacal, but energetic specific treatment apparently prevented any other attacks, although the pain in the right ear and the weakness of memory continued. When examined there were found several syphilitic manifestations, and it was noted that the patient heard badly and that he did not understand spoken words, although he could hear faint sounds easily. Written speech he understood very well. He gradually grew worse, had athetoid movements and finally died. A diagnosis of atypical dementia paralytica with focal symptoms of subcortical sensory aphasia in the sense of Wernicke Lichtheim was made. At the autopsy there was found an area of softening in the median anterior third of the left thalamus opticus, and an old extravasation of blood in the right temporosphenoidal lobe between the second and third convolutions, and in both temporosphenoidal lobes some changes in the appearance of the cortex which was found to be due to a fibrous leptomeningitis. Therefore, the chief change was a diffuse lesion of the cortex and not a subcortical focal lesion. Strohmayer has collected 12 cases of subcortical aphasia which he tabulates, and he shows that various pathological lesions can cause the symptoms. He reports a second case of his own, a woman of 53 years, who developed pain in the neck and back of the head, scotomata before the eyes, vomiting, loss of the power to walk, vertigo and a peculiar weakness of memory consisting in difficulty in recalling names. A diagnosis of cerebral tumor in the region of the anterior portion of the corpus callosum, was made, and the disturbance of speech was regarded as optic or anamnestic. At the autopsy a tumor was found about 20 mm. posterior to the end of the corpus callosum in the median line, about the size of a cherry. Tumors were also found in both cerebellar hemispheres, in the second right occipital lobe, in the right temporosphenoidal lobe in the neighborhood of the second convolution, and an area of softening in the left temporosphenoidal lobe. These were all probably secondary to a carcinomatous neoplasm of the pleura. In this case subcortical lesion had not given rise to subcortical aphasia, and he, therefore, believes that we should discard this name entirely and restrict ourselves to the clinical term "word-blindness."

[J. S.]

24.—Mingazzini reports the following case of **aphasia**. A woman, 67 years of age, who had been an alcoholic, at the

age of 63 had had a fall, injuring the head, and following which there was headache. Then she began to have paraphasia, loss of ability to understand questions, inability to dress herself, and confusion of the various implements that she used, such as knives and forks. Finally, she had convulsions resembling epilepsy. She then became unable to make more than unintelligible sounds and died. There was atrophy of the entire brain, the convolutions were smaller, and Nissl's method showed changes in the pyramidal cells. The case illustrates the fact that progressive atrophy of the brain may lead to typical aphasic disturbances. [J. S.]

25.—Nonne reports the case of a girl, 16 years of age, who had an attack characterized by a feeling of a foreign body in the larynx, and then pain radiating over various parts of the body. There were clonic movements in the extremities, but nevertheless a diagnosis of hysteria was made. Five months later the patient was readmitted with severe pains in the neck, back and lumbar region. Three weeks previously she had suddenly become blind. There was cachexia and hallucinations of hearing and sight, but the patient was apathetic and weak-minded. She improved somewhat, the pupils showed extraordinary changes alternating between mydriasis and myosis, one changing at a time and showing great irregularity of the ordinary pupillary reactions. The patellar reflexes were lost. Later there was paralysis of both oculomotor nerves, and there was some doubt as to whether there was atrophy of the optic nerves or not. Lumbar puncture showed an increased pressure. From time to time the patient would be able to see and hear and then would again become blind and deaf. She finally died. A diagnosis of cerebral tumor in the region of the corpora quadrigemina with metastasis to the spinal column, was made. At the autopsy an absolutely negative macroscopical brain and spinal cord were found. Microscopically, however, it was found that the whole pia was filled with a proliferation of new cells. This was of the character of sarcoma. The central nervous system appeared to be normal. Nonne discusses similar cases that have been reported, and believes that the extraordinary variation in the severity of the symptoms is due to the peculiar way in which the tumor mass affects the bloodvessels. Although young persons are most frequently affected, cases have been reported occurring in individuals up to 60 years of age. [J. S.]

26.—Zahn reports the case of a girl, 26 years of age, who at the age of 16 had had difficulty in speech and uncertain gait. Her father had died after having had the same disease for 24 years. When she was examined it was found that the muscles were spastic, there was not any degeneration, the reflexes were greatly increased, ankle clonus was present, muscular power was not diminished, and there were no defects in the organs. Sensation was apparently normal. The disturbance of speech was due to the involuntary movements of the muscles of articulation. The patient was under observation for some time, and her gait was improved by practice. She finally died as a result of septic peritonitis. At the autopsy the pia mater of the spinal cord was found irregularly thickened, and there was degeneration of the pyramidal tracts, although the intensity of the degeneration varied at different levels. There was slight degeneration of the posterior columns in the upper portion. Zahn does not believe that this irregular degeneration of the white substance of the cord is to be looked upon as secondary. The best explanation seems to be the assumption that the process is a sort of **hereditary degeneration**, and it does not appear likely that an accurate diagnosis of the condition could have been made during life.

[J. S.]

27.—Finkelnburg has analyzed 67 cases of **brain tumor** occurring in the medical clinic at Bonn. He tabulates the cases according to the anatomical situation of the tumors. There were 22 cases of tumor of the cerebellum, 13 of which were confirmed by autopsy. In 3 cases operations were performed, one of which resulted successfully. In 4 cases confirmed by autopsy choked disc was absent. In 3 cases the patients had cardiac arrhythmia and disturbance of respiration when the head was moved. There was considerable difference in the behavior of the reflexes. Some of the cases were exceedingly difficult to diagnose. He mentions one case, a child, in the fourth year of life, with

difficulty in walking, enlargement of the head, choked discs, disturbance of sensation in the area of the right trigeminal nerve, and paresis of the lower facial. There was increased pressure in the spinal cord, and at the autopsy a sarcoma of the base of the right hemisphere was found, with internal hydrocephalus. In another case the patient had a cerebellar gait, pain in the back of the head, weakness and vertigo. There was also nystagmus, increase in the tendon reflexes, Romberg's symptom, but no choked disc. Four years later the patient presented the typical picture of multiple sclerosis. There were 27 cases of cerebral tumors sufficiently carefully studied for statistical purposes. The reflexes showed marked variations. Eight cases were subjected to operation, 5 times merely to relieve the symptoms, and in 2 of these considerable improvement occurred. In 3 other cases the tumors were found at the operations. In 2 of these the patients died, and in the third the tumor was so large that only a part of it could be removed. Some of the cases were exceedingly interesting. In one, commencing in the fifteenth year, there was increased thirst, polyuria, gradual loss of sight, staggering gait and death after 4½ years. At the autopsy a sarcomatous proliferation was found in both ventricles. In another case the patient had nervousness, headache, vertigo, choked discs, increased tendon reflexes, cerebellar ataxia, but no focal symptoms. A round cell sarcoma was found on the floor of the fourth ventricle. In still another case the patient had headache, vertigo, staggering gait, vomiting, weakness in the left facial nerve, choked discs, alternating hemiplegia, progressive apathy, then temporary improvement and death. A glioma was found in the third ventricle, involving the right crus and tegmental region. Some interesting observations of tumors and other disease conditions of the base of the brain are given. In one case, hemisphericity had existed for 20 years, then gradual loss of sight in the left eye took place, loss of muscular control in the right eye, right hemiplegia and disturbance of speech. A diagnosis of tumor of the sella turcica was made, but an autopsy was not obtained. In another case multiple spindle cell sarcomata were found, but during the clinical course the patient had improved remarkably upon a mixed treatment. The histories of several other cases of multiple tumors are also given, also several cases of chronic hydrocephalus simulating brain tumor, and Finkelnburg summarizes the symptoms of this condition as follows: Chronic development without distinct initial symptoms of meningitis; very slow course with marked remissions; at first symptoms of intracranial pressure which may disappear entirely or leave atrophy of the optic nerves only; absence of symptoms of focal disease; early occurrence of disturbance of vision and weakening of the patellar reflex. [J. S.]

THE JOURNAL OF NERVOUS AND MENTAL DISEASE.

September, 1902. (Vol. 29, No. 9.)

1. A Contribution to the Radical Cure of Exophthalmic Goiter with the Ultimate Results in Eight Cases treated by Thyroidectomy. J. ARTHUR BOOTH.
2. Acute Hemorrhagic Cortical Encephalitis. HERMAN H. HOPPE.
3. Paramyoclonus Multiplex: Report of a New Case with Further History of a Case Reported in 1896, Which Has Since Recovered. F. W. LANGDON.

1.—Booth concludes his article as follows: (1) Cases of Graves's disease may be completely cured both by thyroidectomy and bilateral section of the sympathetic; (2) in view of the fact that some cases are cured by internal medication, there must be a certain proportion in which the affection does not induce structural changes in any organ; (3) no theory can be regarded as adequate without taking into consideration the functions of the thyroid gland; (4) three factors must be considered in the production of the disease: (a) The central nervous system; (b) the connecting fibers: sympathetic and vagus; (c) the thyroid gland; (5) a lesion of one of these parts may produce a specific alteration in the others, the consequences of which, together with the exciting cause, may give rise to the symptoms of Graves's disease. [T. M. T.]

2.—Hoppe reports a number of cases of this disease, and states that the symptoms can be easily grouped under 3 heads: (1) Period of onset and development; (2) the period of focal signs and symptoms; (3) the permanent signs and remote consequences. The first and second group overlap each other more or less, but are sufficiently distinct to be separated. [T. M. T.]

AMERICAN JOURNAL OF THE MEDICAL SCIENCES.
August, 1902.

1. Paratyphoid Fever: Report of 4 Cases; Analysis of All Reported Cases. W. JOHNSON.
2. Report of a Case of Paratyphoid Fever. A. HEWLETT.
3. Paracolon Infection, Together with Report of a Fatal Case With Autopsy. W. LONGCOPE.
4. Spontaneous Nontuberculous Pneumothorax. M. H. FUSSELL and D. RIESMAN.
5. A Case of Hyperplastic Tuberculosis of the Veriform Appendix. T. CROWDER.
6. Some of the Difficulties and Errors in the Diagnosis of Appendicitis. C. CUMSTON.
7. Bothriocephalus Latus; Report of a Case of Double Infection With a Discussion of the Causation of Primary and Secondary Pernicious Anemia. R. WILLSON.
8. Ectopia of the Adrenal. H. RADASCH.
9. A Case of Hemorrhagic Exudative Erythema (Henoch's Purpura). H. CARTER.
10. Traumatic Pott's Disease, Followed by Spastic Paraplegia. H. FISCHER.
11. Congenital Absence of the Entire Esophagus, with Report of a Case. J. MARSH.
12. Observations on Vegetable Proteolytic Enzymes With Special Reference to Papain. L. MENDEL.
13. The Relation of Carbon to Nitrogen in the Urine, With a Method for the Estimation of Carbon. H. RICHARDSON.
14. Cesarean Section. C. DIXON.
15. A Clinical Lecture on the Radical Cure of Inguinal Hernia and on a Case of Anal Fistula, With Remarks on Anesthesia. W. RODMAN.

1.—Johnson reports 4 cases of paratyphoid fever. In all there was absence of the Widal reaction, but the serums agglutinated the paracolon or the paratyphoid bacillus. In 2 cases the latter was isolated in pure cultures from the blood. He has collected reports of all other cases of paratyphoid fever and obtained a number of specimens of the micro-organisms. The study of these shows that many of them agglutinate with the blood of cases of paratyphoid fever, that they all differ from the typhoid, colon and dysentery bacilli, that they differ also from the group to which the bacillus enteritidis and its congeners belong. He analyzes 25 cases that he has collected from the literature. The duration of the disease is apparently from 12 to 84 days. It may be mild, moderately severe or severe. Two of the 25 patients died. There are often marked remissions in the early stages. The clinical symptoms consist in roseolar eruption, usually moderate enlargement of the spleen, gradual onset and epistaxis in 4 cases. Diarrhea was present in 10 cases in the beginning, and in 5 others in the course of the disease. In 10 cases no leukocytosis was found, and in others it is not reported. Albumin was found in 9 of 21 cases. The micro-organisms occurred in the blood and in the urine in about the same way that they did in typhoid fever. Various complications have occurred. A fair proportion of the cases terminated by crisis. One of the distinctive features of the disease is the absence of intestinal ulceration. Among other conclusions Johnson states that the disease is comparatively rare, although widespread, and that every instance of a negative Widal reaction is not due to infection with the paratyphoid bacillus. [J. S.]

2.—Hewlett reports the case of a man, 34 years of age,

who had never had typhoid fever, but 7 days after a heavy debauch became sick, had vomiting, headache, cough and at times was chilly. There was slight diarrhea and when admitted to the hospital the temperature was 104.2°. This temperature was continuous until about the thirteenth day, when it showed marked remissions. There was a collapse lasting about 8 days, and then termination by crisis. On the twenty-eighth day there were slight signs of consolidation at the apices, the fever was higher, and a leukocytosis of 12,000 existed. The bloodserum agglutinated typhoid bacilli, but not typically, in a proportion of one to 10, on 3 occasions. No agglutination occurred in dilutions of one to 50. Blood cultures were made several times, and on one occasion a growth occurred of a bacillus that agglutinated in dilutions of one to 100 with the patient's blood. This was short, decolorized by Gram, at first was motile, and grew upon agar, gelatine and bouillon as the typhoid bacillus does. Milk was at first rendered acid, but finally neutral. Indol was not formed; glucose was fermented, and it, therefore, differs from the typhoid bacillus. Specimens of Gwyn's and Cushing's bacilli were obtained and agglutinated with the patient's blood, and a guinea-pig immunized to Hewlett's bacillus caused agglutination with many other forms of paratyphoid bacillus. [J. S.]

3.—Longcope reports 2 cases of **paracolon infection**. The first, a man, 22 years of age, was admitted to the hospital on the ninth day of the disease. There had been chill, headache, abdominal pain and epistaxis. There was no leukocytosis; the Widal reaction was negative, the patient became delirious, and on the twelfth day he died. The autopsy was made 28 hours after death and showed congestion and edema of the lungs, acute splenic tumor, congestion of the brain and lumbar cord and lumbricoid worms in the intestines. Cultures showed a general infection with a bacillus that resembled the typhoid bacillus in some respects, but fermented glucose and lactose. The second patient, a man of 35 years, was admitted on the fourth day of the disease. He had had nose-bleed and constipation. There was a slight roseolar eruption on the back; hypoleukocytosis, negative Widal reaction. The patient rapidly improved and convalesced uneventfully. He was subsequently admitted with a second attack. The Widal reaction was positive in a dilution of one to 20; cultures from the median basilic vein gave a micro-organism which corresponded with that found in the first case. The blood of this patient reacted with the bacilli obtained from the other case of paracolon infection, and with the bacilli obtained from the patient's blood. Both the present cases were remarkable, because there was an herpetic eruption on the lips, and epistaxis occurred early in the disease. The autopsy failed to reveal any specific lesions. [J. S.]

4.—Fussell and Riesman report 2 cases of **spontaneous pneumothorax**, that is, pneumothorax occurring suddenly in healthy individuals without the cause being discoverable by physical examination or by the history of the case, and in which there was no formation of liquid. The first patient, a girl of 21 years, was suddenly awakened one night by a severe stabbing pain in the region of the left nipple. There was extreme dyspnea, and when a physical examination was made there were all the signs of pneumothorax. Aspiration of the chest the following day showed nothing but air. This patient rapidly recovered and has had no recurrence for 7 years. The second patient, a man of 27, had cough and pain on the right side. Physical examination revealed a tympanitic note over the right side of the thorax, particularly in the lower portion with loss of breath sounds and diminution of vocal resonance. The patient developed cyanosis, but after strapping the chest he improved and was finally discharged. Three months later all signs of the disease had disappeared. The authors have collected 55 cases of this condition from which they deduct the following statistics: Of 55 cases 45 were males and 10 females. In the majority of instances the attack came on

in young adults. There appears to be little difference between the 2 sides. The condition may last from a few days to several weeks, although one case apparently lasted for 3 years. Usually, but not always, some violent exertion precedes the attack. The chief symptoms are pain, which may be of brief duration, dyspnea which is present only in the minority of cases; occasionally cyanosis; not infrequently cough and in some instances slight fever. The physical signs may develop rapidly or slowly. The heart is usually displaced. In 6 cases recurrence occurred. The authors also report a thirteenth case occurring in a boy, 3 years of age, in whom **pneumothorax** developed as a **symptom of sarcoma of the pleura**. The patient finally died, and the diagnosis was confirmed at autopsy. [J. S.]

5.—A man, 47 years of age, with a tubercular family history, had from time to time slight attacks of pain in the abdomen. These pains gradually became more severe and were localized in the right iliac region. When admitted there was a tender swelling in the region of the appendix. The patient had moderate temperature. An operation was performed, and an enlarged appendix with a portion of the thickened cecal wall removed. Two weeks later he developed an acute arthritis on the right side, but finally recovered. Microscopically the appendix was found to be the seat of a **tuberculous process**, although tubercle bacilli could not be found. These cases are rare, and this one is particularly interesting because the process was typically hyperplastic. The difficulty in the diagnosis of appendicitis depends first upon the position of the organ and the great irregularity of the symptoms. The objective symptoms are tumefaction, although Crowder believes that it is very difficult to palpate an enlarged appendix unless there is a peri-appendicular inflammation. The temperature is very irregular and may be normal or high. The subjective signs are the localized pain, the muscular rigidity and the hyperesthesia. Sometimes the pain is localized only around the umbilicus. The muscular rigidity is only a symptom of intra-abdominal pressure. Other symptoms may occur, but they are not characteristic. Usually they are those of intestinal obstruction. [J. S.]

6.—Cumston reports in detail a number of cases of **appendicitis** in which for one reason or another the diagnosis was difficult. In one, a woman, there was pain in the region of the stomach. Later pain in the right groin, and, finally, a mass could be detected in the posterior cul-de-sac which was found to be composed of the appendix and right tube. In another case the patient developed a mass on the right side of the uterus and adherent to it. The patient gradually improved, an operation was not performed, but a year later the symptoms recurred and a long appendix was found. The adnexæ were normal. In the third case there was pain in the right iliac fossa and a mass to the right of the uterus, apparently perimetritis, and an enlarged appendix was found. The fourth patient, after a miscarriage, developed pain in the abdomen, and there was a large retro-uterine mass which was found to be an abscess cavity proceeding from a gangrenous appendix. In the fifth case the symptoms were rendered obscure because the right tube and ovary were adherent to an inflamed appendix. The sixth case, a boy with almost typical symptoms of appendicitis, was found to have an undescended testicle. In the seventh case the patient apparently had appendicitis, and the appendix was removed, but did not present any characteristic alterations. Later, the symptoms persisting, a second operation was performed and an annular carcinoma of the cecum found. In an eighth case at the time of operation tuberculous peritonitis was found with constriction of the tip of the appendix by a band of tissue. The patient recovered completely. In cases of appendicitis with pain on the left side we either have an abnormally long appendix, or inversion of the abdominal viscera. In conclusion, Cumston mentions the technique he prefers for the removal of the ap-

pendix. He separates the peritoneum from the organ, reflects it upon the cecum, ligates the appendix and sutures the peritoneal flap over the end. [J. S.]

7.—Willson reports a case of *bothriocephalus latus* occurring in a Russian Jewess, 46 years of age. The patient had been dizzy, fainted, easily tired, had headache and frequent cramps. She passed several feet of the tapeworm every week, and these, examined at the hospital, presented the characteristic features. The patient was placed in bed, purged, deprived of food for 12 hours and then given half a dram of the oleoresin of aspidii, an hour later receiving one ounce of magnesium sulphate. About 20 feet of segments passed without the head. The same day she received an ounce of Tanret's pelleterine and was subsequently purged with gelatine. About 20 feet more of the worm were passed. During the night the patient had cramps, and two worms were simultaneously passed by the rectum. The protruding segments showed a curious squirming movement. The patient was very weak as a result of continued medication, but rapidly recovered. She was subsequently admitted to the hospital and treated with pelleterine, expelling a large quantity of the worm. Later she consulted a woman specialist and as a result of this treatment passed enormous quantities of the tapeworms and was shown four heads, although Willson, who examined the specimen carefully, found only two heads. He concludes with a careful description of the worm and the symptoms it caused. [J. S.]

8.—Radasch discusses *ectopia of the adrenal*, believing that hypernephroma can be recognized by the histological structure of the organ, the presence of oil globules in the cells, and the peculiar staining reaction discovered by Lubarsch. He reports the case of a man of 29 years, who died with symptoms of brain tumor, and in whom masses of adrenal tissue were found in the kidney and liver. He concludes from a careful study of the literature that *ectopia of the adrenals* is more common than is usually supposed, and that it is due to defects in development. [J. S.]

9.—Carter reports the case of a woman, 29 years of age, who after a slight attack of sore throat developed some bright red spots on the elbows. The eruption then appeared above the ankles and spread over the body. There was some indigestion and a great excess of indican. The pain in the abdomen became more and more severe, finally requiring morphine. She recovered, but soon had a second attack with renewed abdominal pain and vomiting. After each attack the stools contained undigested food and vomitus. No treatment excepting morphine relieved the patient in any way. The characteristic features of this form of purpura, according to Henoch, are that it occurs in children; there is purpura with colic, abdominal pain, vomiting and sometimes intestinal hemorrhage, and slight or no fever. Strumpel, however, observed the same symptoms in adults. [J. S.]

10.—Fisher reports the case of a man who fell from a scaffolding. He was able to return to work after remaining in bed for 4 months, during which time angular curvature of the spine was observed. Eight years later his legs became weak, and in the course of 9 months it was almost impossible for him to walk. The condition gradually grew worse, although there were some remissions as a result of energetic treatment. He finally became completely paraplegic, dyspneic and died. Death was due to acute miliary tuberculosis. There were some *caries of the lower dorsal vertebræ*, and a microscopical examination of the cord showed that there was degeneration chiefly in the posterior and lateral columns in the lumbar region, although the posterior columns were intact at the higher levels. The interesting feature of the case is the quiescence of the symptoms for 10 years after the injury. [J. S.]

11.—Marsh has collected 4 cases of *complete absence of the esophagus*, to which he adds one observed by himself.

The child was born on August 22, and was apparently normal until the following day, when an attempt was made to nurse him, during which he became black in the face, choked and finally raised a little bloody mucus. These symptoms occurred every time an attempt was made to nurse him, until the seventh day when he died, apparently as a result of pneumonia. At the autopsy the esophagus was found to terminate in a blind pouch at the level of the suprasternal notch, and from the stomach a tube of about the normal caliber of the esophagus extended as far as the diaphragm. [J. S.]

12.—Mendel has performed some interesting experiments with papain in various forms which he designates as A, B, C and D. He finds that they are capable of dissolving various percentages of egg albumen, always more when unboiled than when boiled. In some cases control solutions showed a greater degree of digestion without papain than occurred with boiled albumin. Various percentages of different kinds of acids were employed in these tests, and they were also made with water alone. It was observed that leucin and trypsin were not formed when antiseptics were used to prevent bacterial fermentation. Papain does not conform in certain respects to any of the animal proteolytic enzymes. [J. S.]

13.—Richardson suggests the following method for estimating carbon in the urine: A given quantity of urine is decomposed in an ordinary 500 cc. fractional distilling flask by means of a mixture of sulphuric and chromic acids, the carbon dioxide evolved passed through iodic acid, silver nitrate and biniodate of sodium into a flask containing ammonia. The CO_2 is precipitated from the ammonia carbonate with Ba Cl_2 , filtered, the precipitate dissolved in normal nitric acid, and then titrated with a seminormal caustic solution until it reappeared. The amount of acid resulting is multiplied by 0.006 and gives the amount of carbonate. Control tests with solutions containing a normal amount of acid showed that the method was accurate. Metabolic experiments showed that the amount of carbon eliminated during rest and during moderate exercise was about the same. During sleep, however, the amount eliminated per hour was less than while the patient was awake. The ratio of the amount of carbon to the amount of nitrogen is maintained within more narrow limits during rest, exercise and sleep, and any marked deviation therefore, is an indication of disease. In gouty conditions Richardson has observed that C/N is very low. He concludes that when the C/N factor is 0.7 or below, strong alkaline treatment is indicated. [J. S.]

14.—Dixon reports the case of a woman of 27, pregnant for the first time with a deformed funnel-shaped pelvis. From the age of 4 years she had been crippled and her spine was deformed, showing very marked scoliosis, and the left leg was shortened. Four days after the membranes ruptured, operation was performed in order to save the life of the child. This operation was done in the usual manner, the uterus sutured, and on the twenty-sixth day the patient was out of bed. The child lived, and later, the patient again becoming pregnant, a *second Cesarean section* was successfully performed, and this time the ovaries were removed in order to prevent a third pregnancy. The mother and child recovered from the second operation satisfactorily. Dixon prefers the Säger to the Porro operation. He mentions several other cases in which Cesarean section was performed more than once with successful results. [J. S.]

15.—Rodman describes a case of *congenital inguinal hernia associated* with extreme phimosis, and gives in detail the technique of the operation required for its radical cure. He also mentions a case of *fistula in ano* occurring in a man of 55 years. He calls attention to the extreme importance of careful treatment of these cases. [J. S.]

THE UNIVERSITY OF PENNSYLVANIA MEDICAL
BULLETIN.

October, 1902.

A Scheme for Taking Histories, Conducting Examinations, Recording, Filing and Indexing All the Data Observed in the Management and Treatment of Surgical Affections. MONTGOMERY H. BIGGS.

Biggs presents in great detail the method employed in the surgical service of the hospital of the University of Pennsylvania for taking histories, conducting examinations, and recording, filing and indexing all the data observed in the management and treatment of surgical affections. [T. L. C.]

THE PRACTITIONER.

September, 1902.

1. Some Points on the Treatment of Fractures.

W. ARBUTHNOT LANE.

2. On the Action of Certain Organic Acids on the Intestines With Its Bearing on the Treatment of Diarrhea. ALFRED C. JORDAN.

3. Practical Disinfection in Schools. A. C. HOUSTON.

1.—Lane discusses some points on the treatment of fractures. He states that he has found no class of fractures more difficult to treat by operation than those that come under the head of **separation of the epiphyses**, and especially those through the growing lines of the humerus. He reports a case of this condition successfully operated upon despite the difficulties which the case presented. When the displacement of the epiphysis is in the backward direction alone, and there is no considerable fracture of the shaft, a very fair arm can usually be obtained by **manipulation**, the elbow being forcibly flexed in order to enable the coronoid process to exert a leverage action upon the lower end of the shaft, and to displace it backward upon the epiphysis. If this be done thoroughly, the overextension of the elbow joint, which results from the rotation of the epiphysis around a transverse axis, may usually be reduced very greatly if not completely removed. He presents a number of radiographs taken at varying intervals from the same patient. These illustrate the very extensive and remarkable structural changes in form which the whole shaft undergoes in its entirety, in consequence of any alteration in the relation of its epiphysis to the shaft. In the case of **fracture through the epiphyseal line**, and, indeed, of any bone, the perfection with which the part is restored to its normal form and function, varies inversely with the age of the subject. For this reason the same necessity for operative interference does not arise so markedly in the young subject as in the adult. The writer states, in closing, that the time is now past when there can be no longer a doubt as to the advisability of operating in a large number of simple fractures and the absolute necessity of doing so in many cases. [T. L. C.]

2.—Jordan has studied the action of certain organic acids on the intestines, with especial reference to the treatment of diarrhea. Rabbits were used in the experiments, which were carried on with normal saline solution, tartaric acid, lactic acid, butyric acid, milk of almonds, citric acid, racemic acid and a number of others. He found that milk of almonds does not seem to be an inert body as far as the intestinal mucous membrane is concerned. The emulsion of oleic acid produced changes which are apparently entirely due to the milk of almonds; the oleic acid in the proportion of 10% producing no discernible action of its own. Lactic acid in the proportion of 2½%, does not injure the mucous membrane after half an hour's action, whereas butyric acid of the same strength acts powerfully. Racemic acid, like its isomer, tartaric acid, has a distinct action; citric acid has a still more distinct action, but the great irritative action is that caused by butyric acid. His next step was to determine the action of lactic and butyric acid as they occur in milk. The free acid was determined at various times in specimens of milk, cream and buttermilk kept at room-temperature. It was found that with every specimen the percentage of free acid increased steadily up to a certain point, after which it began slowly to diminish. Free hydrochloric acid has an irritant action even more powerful than butyric acid, 0.27% producing well-marked changes. Jordan's studies show that the normal gastric contents acts injuriously on the small

intestine. He believes that in many cases of infantile diarrhea the intestinal lesions found have been too frequently accredited to the intestinal bacteria, while the actual irritating substances, often themselves the product of bacterial poison, have not been sufficiently considered. His experiments with butyric acid show that it may have a powerful toxic in addition to its local action. As butyric acid is likely to be by far the most important offender, it is best to assume that, in disorders of digestion, such as diarrhea, butyric acid is liable to be formed from milk and glucose. We shall then arrive at the conclusion that milk and carbohydrates are not suitable diet for such cases. Instead of these, we may use some of the various casein preparations, from which the lactose has been eliminated. Albumin water, barley and lime water as drinks, as well as the various forms of meat juice and beef tea, may, in addition, be substituted. He does not recommend the use of milk of almonds. [T. L. C.]

3.—Houston contributes a most exhaustive article on practical disinfection of schools. His summary of measures discussed is as follows: (1) Disinfection of rooms. (a) Gaseous disinfection. (b) Spraying and washing the walls with disinfectant solutions and rubbing the walls with stale bread. (2) Disinfection of the contents of the room, apart from the bedding and clothes. For example, furniture, books, shoes, boots, etc. (3) Disinfection of mattresses, blankets, carpets, hangings, clothes, undergarments other than linen, etc. (4) Disinfection of the excreta, etc. (5) Disinfection of linen. (6) Disinfection of cups, saucers, plates, spoons, forks, knives, etc. (7) Disinfection of convalescents and the attendants to the sick. [T. L. C.]

THE DUBLIN JOURNAL OF MEDICAL SCIENCE.

September, 1902. (Third Series, No. 369.)

1. On Some Controversial Points in Preventive Medicine. SIR CHARLES A. CAMERON.
2. A Series of Cases Illustrating the Influence of Uterovarian Trouble in the Production of Intestinal Obstruction. JOHN STEPHAN M'ARDLE.
3. Treatment of Senile Hypertrophy of the Prostate. R. F. TOBIN.
4. Nitrous Oxide and Oxygen as an Anesthetic in General Surgery. VICTOR G. L. FIELDEN.

1.—In his article on some controversial points in preventive medicine, Cameron writes of the role of micro-organisms in causing, preventing and curing disease. He is of the opinion that the State should prepare prophylactics, such as vaccine lymph and the various antitoxins. They should be most carefully made, as they are not always to be found free from bacteria nor of uniform strength. On the subject of tuberculosis he thinks these advantages would be gained by a notification of the Board of Health of the existence of each case: (1) The patient or his family, or others residing with him, could be furnished with information as to the precautions to be taken to prevent him, so far as possible, from endangering the health of his co-residents; (2) spittoons and disinfectants could be supplied; (3) on the death or removal of the patient, his abode could be disinfected. He also takes up the question Is bovine tuberculosis transmissible to man? and says that he has a strong opinion that the popular prejudice against the use of flesh and milk of diseased animals is founded upon a true instinct. He expresses the belief that the condition of the soil is a factor in the causation of typhoid fever, and that shell-fish is the vehicle of zymotic poisons, and also that new clothes are a vehicle of disease. [T. M. T.]

3.—Tobin says that if certain views expressed in his article are correct, cases of the disturbance under consideration fall readily, both clinically and pathologically, into two classes, with the indications for treatment in each clear: (1) Those in which there is a true hypertrophy of the prostate, with increased activity of its functions; (2) those in which the enlargement is due to adenomatous or other nonmalignant formations under the pressure of which the prostate has disappeared, and with it what he has declared to be the uses of that gland. In the first class he believes that vasectomy and orchidectomy are applicable, and that these operations are efficacious as regards the urinary trouble, are safe and simple, and, when per-

formed on men of mature years, are followed by none of the changes that characterized them in the case of young subjects. For the second class he considers the operation of enucleation, as described by Mr. Freyer, to be an ideal procedure, and, as a rule, the shock and hemorrhage resulting are small. [T. M. T.]

4.—Fielden's article on **nitrous oxide and oxygen as an anesthetic** is summarized as follows: (1) A mixture of nitrous oxide and oxygen constitutes an excellent anesthetic for short, painful examinations, dressings and operations; (2) the dangers are practically *nil*; (3) the after-effects, if any, are very slight; (4) anesthesia is rapidly induced, and the recovery to perfect consciousness is even more rapid; (5) the patient is able to move about almost immediately, so that it is the best anesthetic to administer when one is desired in the surgeon's consulting-room. [T. M. T.]

October, 1902. (Third Series, No. 370.)

1. A Case of Continued Fever Resembling Enteric, due to the Bacillus Enteritidis of Gartner. JAMES CRAIG.
2. Note on a "Case of Continued Fever Resembling B. Enteritidis. ARTHUR H. WHITE.
3. Cholelithotomy. ARTHUR CHANCE.
4. Clinical Report of the Gynecological Department of the Rotunda Hospital for the year ending November 1, 1901. R. D. PUREFOY, P. C. CARTON and W. G. FITZGERALD.

2.—In view of any lingering doubts as to the nature of the infection White says we must remember the following points: (1) The great mutual susceptibility of the Gartner and typhoid bacilli; (2) that the illness in some of the outbreaks, in which the infection was proved to be due to eating unsound meat, lasted in some instances for several weeks; and (3) Sidney Martin has shown that the injection of toxic products of Gartner's bacillus has much the same effect, differing only in degree, as those which result from the injection of the toxic products of typhoid bacilli. [T. M. T.]

THE SCOTTISH MEDICAL AND SURGICAL JOURNAL.

September, 1902. (Vol. XI, No. 3.)

1. The Peripheral Theory of Nerve Regeneration with Special Reference to Neuritis. R. A. FLEMING.
2. The Treatment of Surgical Tuberculosis. DAVID MACEWAN.
3. Hemorrhage During the Later Months Pregnancy and Early Stages of Labor. ROBERT JARDINE.
4. On A Case of Jejunal Fistula. HENRY M. CHURCH.
5. Note on Rapid and Complete Mechanical Dilatation of the Cervix Uteri. A. R. SIMPSON.

1.—Fleming gives 2 theories of the above condition: (1) The old or central theory was that regeneration occurred only from the central end of a divided nerve, the nerve fibers growing downward into the peripheral segment either as (a) the result of the original nerve fibers themselves growing down, or (b) the result of the parent axis-cylinders, probably it was thought, from the first node of Ranvier above that part of the nerve fiber damaged by the lesion. (2) The second theory is stated as follows: (1) The peripheral segment of a divided nerve *completely* degenerates, beginning in a matter of a few hours and being nearly complete in 3 or 4 weeks; (2) the cells which act as phagocytes for the removal of debris of axis-cylinders and myelin are in the first instance mainly leukocytes, but later connective tissue cells and neurilemma nuclei, which latter proliferate inside the old neurilemma sheaths and form a varying number of cells with large oval nuclei and granular protoplasm. [T. M. T.]

2.—MacEwan in his article on the **surgical treatment of tuberculosis** states that excision of joints is now much less commonly resorted to, and in the case of the hip joint particularly. The weight of authority is against operation, unless in exceptional cases, and more in favor of the con-

servative method. Of the local nonoperative measures used he mentions 3 which at the present time are considered to be of pre-eminent value: (1) Rest, aided by necessary appliances to prevent or correct vicious attitudes and to relieve the part of its functions; (2) injections of iodoform and other antibacilliary substances; (3) the method of Bier, e. g., venous congestion. [T. M. T.]

October, 1902. (Vol. XI, No. 4.)

1. On the Fallacies of the Copper Reduction Test for Sugar in the Urine. F. D. BOYD.
2. A Mortality Curve for Phthisis. W. RAMSAY SMITH.
3. Some South African Experiences.
4. The Course in Medicine at the University of Pennsylvania. J. H. MUSSER.
5. Some Thoughts on the Reconstruction of the Present Method of Medical Education.

1.—In Boyd's article the following facts are brought out: (1) That only under the most exceptional circumstances can creatinin or uric acid cause any error in the copper reduction test; (2) the change in color caused by the bodies grouped under the term alkapton is so characteristic that there should be no difficulty in its recognition; (3) no reduction of copper is likely to occur except in the presence of glucose, if the observation be carried out at a temperature below boiling point; (4) if the urine and copper solution be boiled separately, the test-tube then removed from the flame, and after an interval of 30 seconds the urine be added to the copper solution, if glucose is present reduction takes place, but no reduction occurs from the presence of the less actively reducing bodies. [T. M. T.]

2.—Smith says that, in applying results and in estimating average durations of cases of phthisis to any particular community, the following facts must be carefully considered: (1) The general lengthening of the duration of the disease that one might expect from improved or selected climatic conditions, drug treatment being equal; (2) the number of cases imported into the community in various stages of the disease, which would diminish the average duration; (3) the number of cases cured, which would further tend to diminish the average duration, and in some instances in a very great degree. [T. M. T.]

THE GLASGOW MEDICAL JOURNAL.

August, 1902. (Vol. LVIII, No. 2.)

1. Recent Electrotherapeutic Work in Medicine and Surgery. JOHN MACINTYRE.
2. Chronic Suppurative Disease of the Middle Ear. J. KERR LOVE.

2.—Love advises that old-standing disease of the middle ear, in which the discharge cannot be stopped by palliative treatment, should be treated by operation, and by the radical mastoid operation if necessary; (2) that in performing the mastoid operation the routine treatment should consist of the removal of the entire posterior bony wall of the external auditory canal, splitting the soft parts into the bony wound, stitching the mastoid wound closely and conducting subsequent dressings through the split canal; (3) that there is no practical advantage in skin-grafting the tympano-antral cavity, except it be unusually large, but that in the latter case the proceeding is of great value; (4) that for rapid and certain healing the prime conditions are removal of every vestige of disease, and the reduction of the tympano-antral recesses to one plain-walled, bony cavity, every part of which is easily accessible from the split external auditory canal; (5) the radical mastoid operation does not usually further impair hearing. [T. M. T.]

September, 1902. (Vol. LVIII, No. 3.)

1. The New Electrical Pavilion of the Glasgow Royal Infirmary. JOHN MACINTYRE.

2. Gastroschisis in a Twin. JOHN LINDSAY.
3. Symphysiotomy: Report of a Case of Contracted Pelvis and Pregnancy, Terminated at Full Term by Symphysiotomy. WILLIAM GIBB DUN and A. W. RUSSELL.

3.—Dun and Russell give 2 modes of operation: (1) The open; (2) the so-called subcutaneous incision—the latter being available for cases in which great difficulty is experienced with the forceps alone, and serious injury to mother or child becomes likely. The authors also give 2 varieties of subcutaneous division: (a) In one a pointed tenotomy knife is introduced under the clitoris and pushed up in front of the symphysis to make track for a director. A probe-pointed curved tenotomy knife is then inserted, and the symphysis is cut through from above downward, a finger in the vagina and a sound in the urethra protecting the structures behind and below. (b) In the other a pointed tenotomy knife is introduced through the mucous membrane opposite the middle of the symphysis, and at once cuts downward through the joint and through the ligamentum arcuatum. The knife is then reversed and cuts upward. [T. M. T.]

THE EDINBURGH MEDICAL JOURNAL.

September, 1902. (Vol. XII, No. 3.)

1. On the Occurrence and Treatment of Lobar Pneumonia in Young Children. J. A. COUTTS.
2. Some Neuroses in Childhood. G. A. SUTHERLAND.
3. The Royal Surgical Clinic at Breslau. R. PURVES.
4. The Use and Abuse of Forceps in General Practice. M. DEWAR.
5. Pulsation in the Second Left Intercostal Space. C. C. GIBBES.
6. Two Cases of Obstruction of the Inferior Vena Cava. W. C. BOSANQUET.
7. Atresia of the Conus Pulmonalis. E. CAUTLEY.

1.—Coutts says the principal points in the active treatment of croupous pneumonia in children are comprised in the efforts to control the temperature when excessive, to alleviate pain, to produce sleep and to relieve the strain on the right heart. Very often the means used for the successful accomplishment of one of these purposes are effective in dealing with one or more of the others. [T. M. T.]

4.—Dewar believes that there is much greater safety to both mother and child by a liberal, judicious and careful use of the forceps than when the labors are allowed to linger on, by the instruments being withheld for a long time or not used till the woman is quite exhausted and her vital powers of resistance so lowered that she becomes extremely susceptible to the influence of pathogenic germs. [T. M. T.]

5.—Gibbes reports a case in which an impulse in the second left intercostal space and a heaving impulse at the apex were both preystolic in rhythm and were absent when compensation seriously failed. He believed that these movements were due to the systole of the right ventricle beginning while the left was in diastole, the position of the pulmonary portion of the reduplicated second sound confirming this view. In other words, a partial asynchronism occurs. [T. M. T.]

7.—Cautley divides congenital heart disease into 2 groups: (1) Cases due to developmental errors during the first 2 months of intra-uterine life, the most probable cause of such defects being inherited syphilis; (2) cases due to fetal endocarditis. Under this group are included all those cases of valvular lesions leading to adhesions, contraction or destruction of valves, and many instances of delayed closure of the foramen ovale and ductus arteriosus. [T. M. T.]

Special Article.

THE AIR OF FACTORIES AND WORKSHOPS.

The maintenance of the health of artisans, who are obliged to work in closed spaces, is one of the most important duties of the sanitarian, and one that cannot be brought about without strict supervision and strong, thoroughly enforced laws. To secure such legislation, carefully collected data are needed, and hence a recent contribution by Dr. J. S. Haldane (*Journal of Hygiene*, October, 1902) will be welcome. Dr. Haldane was connected with a committee appointed by the Home Secretary (Great Britain), and his paper is a preliminary publication of a portion of the report. After describing the methods of analysis, he states that it was deemed sufficient to take the proportion of carbon dioxide as compared with the outdoor air as an index of the ventilation. Some determination of micro-organisms were made, but the number and nature of these is subject to so much variation by the influence of the industry that they are not valuable as indications of mere ventilation. Further, the number of organisms in the outside air is very variable, so that it would be difficult to fix a standard. Dr. Haldane found, in open country, air containing about 3.0 parts of carbon dioxide per 10,000, a result which accords with those obtained by several observers. In crowded parts of the city the proportion was higher, of course, the maximum being that found during a fog, in London—6.5 parts per 10,000. The maximum proportion found in a workroom by day was 46.2 per 10,000, this being in a tightly closed spinning room, with an allowance of 10,169 cubic feet for each person. The temperature was 92° F. Burning gas makes a great increase in the proportion of carbon dioxide, but it has also a specially injurious action from the formation of sulphur dioxide. Air vitiated to the extent of 20 parts per 10,000 by combustion of ordinary gas becomes distinctly oppressive, while with good, clean, coal-oil lamps an increase of carbon dioxide to 75 parts per 10,000 did not produce a similar oppression. This difference, however, will not always be noted, for some kinds of burning oil contain notable amounts of sulphur. It is obvious that the use of incandescent mantles will be of much benefit, but the best system is the incandescent electric light. English conservatism is exhibited by the fact that in many mills very wasteful methods of using gas were observed. It is to be regretted, by the way, that builders have never utilized the gas burners systematically as aids to ventilation.

Dr. Haldane records some interesting facts as regards ventilation obtained without artificial means. Complete ventilation requires either forced draft or forced expulsion of air. This can be best accomplished by a fan so arranged as force in clean, warm and dry air. An exhaust fan is not so satisfactory. The natural openings of the rooms, windows, doors and crevices exercise more ventilating action than might be supposed. It was found that the air is

usually changed with more rapidity in crowded than in not crowded rooms after the rooms were emptied. Thus, in a room having less than 1000 cubic feet of space per occupant, the air was on an average changed in from 6 minutes to half an hour, while in a room with 5,000 cubic feet per occupant the air-exchange was so slow that the room would not purify itself over night. The efficiency of the natural methods will be less in proportion to the size of the room, since the surface increases as the square, while the contents increase as the cube. Hence a very large room with limited openings may contain a very foul air, although occupied by few persons. The investigating committee recommends that the ventilation in workrooms should be such as to prevent the carbon dioxide rising above 12 volumes per 10,000 when gas is not used, and above 20 per 10,000 when gas is used, except during fogs or in factories in which carbon dioxide is produced by other methods than fire and light.

JOURNAL DES PRATICIENS.

August 23, 1902. (16me. Année, No. 34.)

1. Late Syphilitic Iritis. ALBERT TERSON.
2. Gout. BOULOUMIE.

1.—**Syphilitic iritis** occurs in the transition or secondary period of the disease, as a rule between the fifth and twentieth months. It may rarely be found earlier or later. Terson reports 6 cases, in all of which syphilitic iritis appeared from 6 to 30 years after the primary lesion. All these patients had mercurial treatment in the beginning. As no other causes were found to explain the iritis, and injections of mercurial biniodide caused recovery, the condition, though late, was probably syphilitic. [M. O.]

2.—**Bouloumié** defines **gout** as a constitutional disease of nutrition, most often hereditary, characterized by a dyscrasia termed uricemia, causing a series of manifestations called arthritic, and inflammations, of the joints especially, with the deposit of uric acid at the spots affected. It depends upon some aberration of nutrition. It is distinctly constitutional, affecting the entire body, yet shows heredity, occurring, as it does, in families. Congestion develops easily, followed by the deposition of tophi, especially near the joints. The symptoms are described in detail, with a brief review of the etiology. It is noted both with arterial hypertension and hypotension. [M. O.]

August 30, 1902. (16me. Année, No. 35.)

1. Syphilitic Dementia. EDGARD HIRTZ.
2. Water Trefoil or Menyanthus. LIEGEOIS.
3. Phlebitis of the Ophthalmic Vein and Sinus, following Dental Abscess. N. COUDERC.

1.—**Syphilitic dementia** has nothing characteristic about it, except that it is due to syphilis. There may be incoherent hebetude, simple depression, paralyses of the cranial nerves, apathy, anemia, headache, clonic convulsions, eruptions or bony lesions. Dementia may follow partial, paralytic, aphasic or cephalalgic epilepsy; or it may occur without symptoms. Other signs of syphilis may or may not be found. Hirtz reports the case of a man of 33, who suddenly became comatose after eating. There were no signs of syphilitic infection, but when he recovered consciousness a syphilitic history was elicited and specific treatment given. He recovered rapidly. Another case follows, showing the variety of symptoms. [M. O.]

2.—**Water trefoil or menyanthus** has been used in dyspepsia, headache, migraine, neurasthenia, liver disease, fever, chlorosis, hydrothorax, pericardial effusion, etc. [M. O.]

3.—**Couderc** reports a case of **phlebitis of the ophthalmic vein and sinus**, in a man of 32, following dental abscess, with fatal result, in spite of incision and drainage. [M. O.]

Original Articles.

AMPUTATION THROUGH THE SHOULDER-JOINT AS A ROUTINE PROCEDURE IN AXILLARY CARCINOMA, SECONDARY TO MAMMARY TUMORS.*

By JOHN B. ROBERTS, M. D.,
of Philadelphia.

In 1897 I advocated before the Philadelphia Academy of Surgery** disarticulation of the arm at the shoulder joint as a routine method of treatment for all cases in which axillary carcinoma occurred secondary to excision of the breast for malignant disease. I then said that I had come to the conclusion that it was the only method which gave the surgeon opportunity thoroughly to eradicate the diseased lymphnodes and other tissues surrounding the great vessels at the apex of the axilla; that to do a less thorough operation was to fail to give the patient the best chance of prolonged comfort and life; that recurrence of the carcinoma in the armpit, with consequent pain and lymphatic edema of the upper extremity, was almost certain unless free access to the subclavian and axillary arteries and veins was afforded to the operator; and that the loss of the limb, which, if the disease returned, would soon be useless as well as painful, was unimportant. Permanent cure of the disease was deemed possible, in a certain proportion of cases, after this heroic procedure.

I mentioned a case in which I had obtained permission to operate in this manner, but in which I had, to my subsequent regret, decided to abstain from amputation because of the mutilation. This was an erroneous decision, because the disease returned in about six months and finally destroyed the patient.

It is to be observed that my proposition was quite different from the suggestion to remove at a later time the heavy lymphedematous arm, due to lymphatic involvement, in order to get rid of the weight of the useless member.

In 1899 I operated in accordance with my belief in the propriety of this manner of dealing with the relentless disease under consideration. The case was one in which there had been no previous operation on the breast, and the axillary involvement induced me to amputate the arm as a step in the primary attempt to extirpate the malignant disease.

DISARTICULATION OF THE ARM FOR CARCINOMA OF THE MAMMARY GLAND AND AXILLA.

Mrs. McC., aged 58 years, had had for several years carcinoma of the left mammary gland which had never been subjected to operation. When seen by me on March 13, 1899, the growth had ulcerated and there was a hard mass under the anterior boundary of the axilla. The chief complaint of the patient was the severe pain felt in the outer part of the arm and in the forearm and hand. The contiguous surfaces of the palmar aspect of the thumb and forefinger were especially painful and showed staining from iodine with which she had painted them to relieve pain. The pain must have been very severe, for she voluntarily suggested the amputation of the arm. There was no edema of the limb. The woman was pale and debilitated, but showed no evidence of disease of kidneys or thoracic organs. On account of the pain I determined to attempt extirpation of

*Read by title before The Medical Society of the State of Pennsylvania, September 18, 1902.

**Annals of Surgery, January 1898.

the mass to relieve pressure. The supraclavicular lymphatic glands were removed by an angular incision, the breast was excised and the axilla opened. It was then found that a hard growth encircled the brachial plexus and axillary artery and vein and extended up under the clavicle to the outer portion of the subclavian vessels. It was evident that the pain from which the woman suffered could not be relieved unless the portion of the brachial plexus encircled by the hard mass was excised. This could not be done without excising the axillary artery and axillary vein, which were included in the mass. Any attempt to dissect out the nerves would have left portions of the malignant growth and would almost certainly have resulted in injuries to the vessels which would have required their ligation. To excise a portion of the artery and vein and the nerve trunks would have given a paralyzed limb which would possibly have become gangrenous from interference with bloodsupply. It seemed to me, therefore, better to take the great risk of death from shock and bleeding, due to the prolongation of the operation, than to allow the woman to remain with the pain unmitigated or have the probability of a gangrenous arm to cause death at a later period. I, therefore, although her condition was bad, made a large flap on the outer side of the arm, to cover the space left by the excision of the mammary gland, and disarticulated the humerus. The vessels were temporarily tied above the site of the main involvement by a silk ligature encircling the whole mass. After the removal of the limb I ligated by means of an aneurysm needle the subclavian vein and artery underneath the clavicle. This enabled me to cut away the growth close to the point at which the hemorrhage had been temporarily controlled by the first ligature. I was enabled to remove nearly all the infected area, depending upon the ligature under the clavicle to control bleeding. One or two ligatures were used below the ligature mentioned, and the wound closed. A drainage tube was put in the axilla; but, as there was considerable oozing of venous blood, it was taken out and the axilla packed with sponges and gauze and the outer portion of the wound left unsutured. The flap from the shoulder covered the large wound on the chest satisfactorily. During the operation the woman's condition became bad and about a quart of normal salt solution was administered by intravenous injection at the right elbow. Other restoratives were given, but she died a couple of hours after operation, without reaction. A consideration of the case shows that it would have been better to have started with the intention of removing the limb and to have ligated the subclavian artery and vein above the clavicle through the wound made for removing the supraclavicular glands. This would have been done but for the fact that I hoped to be able to save the limb and yet relieve pressure on the nerves. If I had known the great extent of the nerve pressure, I would have begun the formal operation in the manner indicated. Some experimental work in the laboratory four or five years ago convinced me that this was the proper method to pursue in cases of removal of the arm for carcinoma of the axilla.

I subsequently found that Dr. Herman Mynter had in 1895 published, in the *Buffalo Medical Journal*, an account of a case in which he disarticulated the arm as a preliminary step to the thorough removal of a malignant mass in the axilla, secondary to cancer of the breast. This patient, according to a personal letter from Dr. Mynter, lived for nearly a year, when she died of cancer of the liver. A second patient of his, operated upon in the same way, died on the second day.

Attention is again called to this operation, because I am convinced of its propriety and value. Dr. Mynter had, in 1895, not heard of it being done except by himself. I, in 1897, felt that its reasonableness had probably led other surgeons to adopt it, but did not remember having seen his article. Many operators may have been similarly led to its performance in isolated cases.

The points which I now desire to emphasize are that it should be adopted as a routine measure in all cases of axillary carcinoma, secondary to malignant disease of the breast, and that the subclavian artery and vein should be ligated above the clavicle before the disarticulation is done. Then the arm should be cut off and the lymphnodes and other affected tissues removed. A flap from the outer aspect of the arm may be retained to cover the axilla and chest, if such integument be needed.

Those specially interested in this subject will find the paper of Mr. Clinton T. Dent, published in the *Medico-Chirurgical Transactions* for 1898, very suggestive and pertinent. He removed the arm, the scapula and part of the clavicle in a case of axillary carcinoma following operation for carcinoma of the breast. His communication was read before the Royal Medical and Chirurgical Society of London in March, 1898.

THE RADICAL CURE OF HERNIA.

WITH REPORT AND ANALYSIS OF 116 CASES.¹

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At no period in the history of surgery has the operative work for the cure of hernia been on a better basis than it is to-day. While it is true that steady advances have been made in this work, as in all other fields of surgery, since the adoption of the firm establishment of the Listerian principle of surgical cleanliness or a thorough aseptic technique; still it is the work of only the last ten years that may be said to have practically settled the question as to the possibility of curing inguinal and femoral hernia by operative methods. I think this is a fact that few will gainsay.

Previous to this time, although numerous methods, with ardent advocates for each one, had been tried along with the advantages aseptic surgery offered, still the results were not brilliant and many recurrences were noted.

The time has now come when we can justly use the much-disputed term "radical cure," and, moreover, operate upon almost every case of hernia not only without danger to the patient but also with an almost certain prospect of permanent success.

Two factors may be stated in a general way as the cause for this change and improvement: First, the marked decrease in the mortality attending operations, and second, the vastly improved results that have followed improved methods and improved technique.

Mortality of Operative Treatment.

According to the statistics, as published by W. B. Coley, ten years ago the mortality of operation for nonstrangulated hernia, in four of the largest London hospitals, was six per cent.—according to the statistics of Leisrunk 11½ per cent., and in his latter series of cases 9 deaths were due to sepsis. To-day in competent hands the mortality is less than one-half per cent. or, practically, nil in uncomplicated cases. This early mortality was sufficient

¹Read before the West Virginia State Medical Society, at Parkersburg, West Virginia, May 22, 1902.

alone to cause unwillingness on the part of patients to undergo operations. And then, too, added to the danger of the operation was the ever present fact that at least 40 to 50 per cent. of the cases operated upon were followed by recurrences. It was no wonder patients deferred and put off operative treatment as long as possible. To-day, with a mortality nil and the possibility of a relapse exceedingly slight, with an almost certain prospect of permanent cure, patients are more willing to submit to operative treatment and thus get rid of the inconvenience and irritation of mechanical devices and freed from the danger of strangulation, which is ever present.

No longer now, as was the history a few years back, are special cases selected for operation. The general practitioners as well as the surgeons are fully convinced now that the proper treatment for hernia is the operative treatment or the radical cure. With this assurance, more patients are each year willingly resorting to operative cure and not waiting for a strangulation to drive them to it, not having atrophy of the muscles at the hernial rings from the pressure of a truss worn for years, which of itself renders the operation, when ultimately resorted to, less liable to be a permanent success.

In spite of the improvements in the results and the decreased mortality, many patients, however, still seem to prefer to put up with all the inconveniences incident upon truss life and come for relief only when a strangulated and, possibly, a gangrenous hernia exists. Now the picture is changed, for the simple operation is necessarily converted into a life-saving one and oftentimes when all chances of recovery are against them.

So much for the mortality. Now a word as to the improved methods. In no department of surgery has more earnest and careful work been done than in the operative treatment of hernia. The methods of operation introduced in recent years are so numerous that no attempt will be made to describe them. So little do many of them differ that they do not merit a separate name. Most of them are based on a few general principles long since recognized. The operators whose names are connected with the methods that are most familiar would probably be Czerny, MacEwen, McBurney, Kocher, Bassini and Halstead. The greater share of credit, however, for the advance made must, undoubtedly, be given to Bassini, who, in 1890, introduced his method which involved a new principle in closing the canal, viz., transplantation of the cord—and which is to-day very largely and widely adopted, certainly in Boston, New York and Philadelphia. Still, much honor and credit are due to other men who have devised methods similar, if not superior.

What are the indications for operation in inguinal hernia? Ten years ago operations for hernia were restricted to well selected cases, such as large herniæ or to irreducible herniæ or those that were difficult to control by mechanical devices. The general health of the patient was most carefully considered. He was required to possess perfect functions of all his organs, free from heart, lung or kidney disease.

He should be under a certain age limit, or he would have been refused operation. Bull and Coley regarded the age of over fifty as a contra-indication for the operation (*Annals of Surgery*, 1898, p. 598).

Advanced age, chronic bronchitis, emphysema, tuberculosis, cardiovascular changes of marked degree, chronic nephritis and many other impaired physical conditions were classed as contra-indications to the operation, since they seemed to prohibit general narcosis or render inhalation methods of anesthesia inadvisable.

To-day such is not the case, and the indications for operative intervention are much wider in scope. Advanced age is no longer a contra-indication; we are justified in offering operation at almost any age. Nor are the other conditions I have just mentioned contra-indications, since we are able now to do these operations with perfect satisfaction under regional anesthesia or local cocainization, as well as the subarachnoid cocainization or spinal anesthesia.

I have used the subarachnoid anesthesia with success in four cases. One of special interest, in which the spinal cocainization was used (Case 58), was in a patient, aged 68, a confirmed alcoholic, with marked cardiovascular changes, chronic bronchitis and nephritis, suffering from a very large, irreducible hernia of twenty years standing. In this case, ether or chloroform seemed positively contra-indicated, or certainly inadvisable. No ill effects followed; he was taken from the operating room to the ward and enjoyed a comfortable dinner. This was done 18 months ago, and he is alive to-day and free from any evidence of relapse.

I have also used the local anesthesia with cocaine in a number of cases with excellent result. I will mention one case of special interest (case 82), patient 78, operated upon September, 1901; local anesthesia; general anesthesia contra-indicated; bad kidneys; confirmed alcoholic; large inguinal hernia and hydrocele; radical operation for hernia; radical hydrocele operation and appendectomy, the appendix found to be chronically inflamed and partly in the sac; this was removed and the stump was carefully inverted and turned into the cecum without pain. Cocainization of the appendix was not necessary.

It is surprising that handling the bowels, dissecting the flap, amputating the appendix and suturing the bowel should be unattended by pain. Any attempt to drag upon the bowel, however, caused pain.

A careful study of the anatomy and nerve distribution of the parts is absolutely necessary to the proper performance of the operation under local cocainization. The technique briefly is as follows: Infiltration of the skin with normal salt solution or Schleich solution is all that is necessary until the aponeurosis of the external oblique is reached; this is divided without pain, care being exercised here not to injure or cut the nerves which underlie it. The ilio-inguinal and iliohypogastric nerves now come into view and are cocainized (by the intraneural method) with a one or two per cent. solution of cocaine; this anesthetizes the entire hernial region or the region of distribution of these nerves and their terminal branches. This method is very

satisfactory, but the method of choice is unquestionably that of general narcosis.

One of the chief contra-indications to operation for inguinal hernia in the adult is the very large irreducible scrotal hernia. Operations in these cases are difficult and attended with risk, because the abdomen is not accustomed to carrying the intestines or omentum which make up the contents of the sac; they have made their habitat in the sac or scrotum, in some cases for years; often there is no room for them in the abdomen and this militates against a permanent cure. Frequently the contents are made up largely of omentum adherent to the sac; in these cases one can frequently do an operation with success by removing an immense quantity of the omentum, thereby diminishing the amount to be withheld in the abdomen and thus diminishing the tension brought about in the abdominal walls and enable the patient to carry in the abdomen what he has for years carried in the scrotum.

Indications for Operative Intervention in Children.—In reference to this I will quote Dr. Coley, as he has had an experience of at least 500 hernia operations.

"The indication for operative intervention in children requires separate consideration. When I published my first paper upon the radical cure of hernia in children, with a report of fifty cases, in 1893, the criticism was made by some surgeons that hernia in children should not be operated upon, inasmuch as it could always be cured by mechanical means. As a reply to this criticism I made an analysis of upward of 15,000 cases of hernia in adults observed at the Hospital for Ruptured and Crippled in New York, with a view of ascertaining as nearly as possible how many gave a history of hernia in infancy and childhood. A careful study of these cases warranted the conclusion that at least one-third of all infants and children under fourteen with inguinal hernia is not cured by mechanical treatment, and hence the employment of operative methods in hernia occurring in children is entirely justified, provided these methods are free from risk. The only death I have had in upward of 500 hernia operations in children was due to double pneumonia following ether. Therefore, it may safely be stated that the risk is not appreciable.

"Since the publication of the paper referred to, there has been a constant tendency to extend, more and more, radical cure methods to children, until at present we are regarded at the Hospital for Ruptured and Crippled as ultraconservative. Instead of operating upon the majority of children and infants of all ages, as is recommended by many of the French surgeons and is the practice of not a few American surgeons, our plan is to operate very rarely under the age of four years. Most patients with inguinal hernia under the age of four years may be cured with a truss, and it is well to give them the trial. After the age of four years and up to fourteen years we advise truss treatment for one or two years, at the end of which time, if the hernia still comes down and the ring is large, we believe there is little to be gained by waiting and advise operation. Among dispensary patients it is often difficult to provide the proper care at home in the management

of the truss necessary to success, and in such cases the question of operating earlier may be left to the judgment of the surgeon.

"Adherent omentum, though comparatively rare in children, is occasionally met with and, when present, operation should be performed without delay. Reducible hydrocele or fluid in the hernial sac is more frequently seen, and this condition precludes the hope of cure by truss treatment and calls for operation."

Methods Employed.—I shall not attempt to describe the various methods employed or discuss their relative value. Little is to be gained in a theoretical discussion of the value of the various methods. In a recent article, published by Coley in the *Annals of Surgery*, July, 1901, on the Radical Cure of Hernia, with a report of 845 cases, he speaks very strongly and enthusiastically for the Bassini method. In fact, I know of no stronger advocate for this method than Dr. Coley. He speaks of the method as superior mechanically to any hitherto described and claims that the practical results seem to bear him out in this statement. Furthermore, he claims that, out of 776 cases of inguinal hernia operated upon by Bassini's method, 8 relapses had been noted out of 500 cases traced. Out of 18 cases of inguinal hernia operated upon without transplantation of the cord, prior to the adoption of Bassini's method, six relapses followed. These latter 18 cases were operated upon between the years 1891 to 1893, and are markedly in favor of Bassini's method. In this same article Dr. Coley quotes the results obtained at the Clinic of Professor Carle, between the years 1889 and 1899 as confirming his belief in the superiority of Bassini's method, which is as follows: "During these ten years there were 1400 operations for the radical cure of hernia performed, with but two deaths. Bassini's method was employed in 1120 cases, Kocher's in the remaining 280 cases. Out of 840 cases traced, 792, or 94.29 per cent., remained perfectly sound, while 48, or 5.71 per cent., showed a recurrence." These figures undoubtedly speak strongly in favor of Bassini's method, which, according to the International Text-Book of Surgery, is more generally employed than any other method. I, however, have had no experience with his method further than seeing it used by other operators, so I will simply describe briefly the method I have personally and uniformly employed in the entire list of cases I have to report. I prefer it, as I am convinced it obliterates more completely the hernial canal and makes a more perfect closure and gives a firmer barrier to the intra-abdominal pressure. It is very similar to the Halstead operation, differing only in the fact that the internal oblique and transversalis muscles are not cut. The skin incision extends from a point about 5 to 6 centimeters above and external to the internal abdominal ring to the spine of the pubes, running parallel to Poupart's ligament and just over the canal. The skin and soft parts underlying are divided by a free incision down to the aponeurosis of the external oblique muscle, which is now exposed clearly, and the external abdominal ring freely uncovered. The aponeurosis of the external oblique muscle is now cut through

from the external abdominal ring to well above the internal abdominal ring. The so-called neck of the sac now vanishes and the cut edges are freely separated and retracted and the pillars are dissected free from the sac on both sides down to the pubes. The sac, with the cord, which is always posterior, is freely separated all around. The sac is now opened and its contents replaced and held within the abdomen by a bit of gauze: separation of the cord from the sac is now completed and the cord, reduced in size by ligating some of the larger veins, if necessary, is held out of the way with a hook. The sac is freed all around well up into the abdomen and sutured off with a continuous suture of fine silk and then cut away down to the sutures. This row of sutures closes off the peritoneal cavity. The cord is transplanted as high as possible without cutting the arched fibers of the internal oblique and transversalis, and the buried mattress sutures, which consist of silver wire, are now placed. These begin at the pubes and pass through the aponeurosis of the external oblique and through the internal oblique and transversalis muscles and transversalis fascia, on the one side, and through Poupart's ligament and the fibers of the aponeurosis of the external oblique muscle, on the other. Four sutures are generally enough below the cord, and one or two above the cord. The ones above the cord simply pass through the aponeurosis of the external oblique into the internal oblique muscle and out through the other cut edge of the aponeurosis. The stitches are carefully placed around the cord in order not to constrict it. The sutures are now twisted, beginning generally below and turning in the twisted ends, which are buried by whipping over, with a continuous suture of fine silk, the edges of the aponeurosis of the external oblique muscle. The cord is now brought down over this row of sutures, just below the skin, and the skin closed with a subcutaneous suture of silver wire, without drainage. The dressings are now applied, consisting of silver foil, sterile gauze and cotton, and over the cotton are placed strips of thin board and the spica bandage applied. In this way the wound and the groin are immobilized. The dressings are not changed for 10 days or two weeks, when the wire is removed and the dressings left off. The patient is systematically kept on his back three weeks from the day of operation and then allowed to get up, with careful instructions that no truss or support of any kind is to be worn.

Results of Operations.—Ninety-five per cent. is usually given as probably a conservative estimate of cures. The exact proportion of permanent cures cannot be estimated, as no definite limit of time can be laid down beyond which relapses may not occur. A careful study of the relapsed cases, however, shows that over 80 per cent. of the relapses occurred during the first year after operation; 64.5 per cent. during the first six months following operation, while but 11.9 per cent. occurred after a period of two years had elapsed. From these facts we are justified in concluding, in a general way, that, if a rupture is sound at the end of one year after opera-

tion, there is a reasonable prospect of permanent cure, while, if it remains well for two years, the chances of relapse are exceedingly small. Still, they have been known to occur ten to twenty years after operation.

My record shows one hundred and sixteen cases of hernia—composed of *inguinal*, *femoral* and *umbilical* varieties.

Brief Analysis of Table of Cases.—Of the 95 operations for inguinal hernia, as to position, there were 60 right inguinal and 35 left inguinal. As to sex, 83 cases out of the 95 were inguinal hernia in the male, 12 inguinal hernia in the female. As to variety of sac formations, 24 cases of the congenital variety and 71 cases of the acquired.

Age of Patients.—Table shows all ages from infant, 11 months old, up to 83 years of age. At both extremes I had patients with strangulated hernia, and both of them recovered.

In all cases of the strangulated hernia the effort has always been made, when the case justified it, not only to relieve the strangulation but continue the operation on to a radical cure, and I have generally been successful, except in the few cases of gangrenous hernia in which an effort was made to resect and restore the bowel or make an artificial anus.

Wound Healing.—Perfect primary union should be regarded as the most important factor in the success of any method. Wound infection means infection of buried sutures, whether of absorbable or non-absorbable material, which is followed by tardy recovery and often by relapse. In only two of my cases, and these were very early cases, has there been wound infection. In one of these the buried wire suture had to be gone after and a delayed recovery was the outcome. This case has not been traced, as he was a British seaman. Since these two cases, primary union has been obtained in all my cases. No drainage is ever used; I attribute the success of obtaining primary union largely to the thoroughly dry wound and freedom from tearing and bruising tissues, as well as to the use of rubber gloves, worn by not only myself, but all assistants. I failed to mention one other wound infection that happened to Case 53, a young girl, aged 8, who had gonorrhea at the time I operated. I was not aware of it. An infection occurred; the wound healed, however, without the buried silver wire sutures giving trouble. This was two years ago and I have heard nothing of her having trouble, so I fancy she is still well.

Recurrences.—I have not been able to trace all my cases, but have not found a single recurrence in any of the cases followed.

Suture Material.—In all but two cases I have used nonabsorbable sutures, silk and silver wire. Silver wire has been uniformly used for buried sutures in all but the first four or five cases, in which silk was used. In the two cases in which absorbable sutures were used the material was kangaroo tendon.

These cases did well; I simply used it as an experiment, but I did not like it and have since continued using silver wire, which I infinitely prefer to any other material. My experience with it so far has been entirely different from that of Drs. Bull

and Coley, who persistently condemn its use, citing cases of late sinus formation and delayed union, etc. These, I grant, occur occasionally, when wound infection and deep suppuration follow operation. This should be avoided. As to the absorbable sutures, I am not at all convinced that they remain unabsorbed sufficiently long to secure thorough union of the parts. As to silkworm-gut as a suture material, I do not use it. Drainage I think unnecessary, as I think it tends to invite infection.

Cases of Unusual Interest: Properitoneal or interstitial hernia. Four of my cases were of the properitoneal or interstitial variety of hernia, and, as is very common, two of these cases were associated with undescended testicles, and in the other two cases strangulation existed when I was called. There was no lump to be found. The symptoms were those of acute intestinal obstruction, with pain in the inguinal region. In one there had been a slight protrusion of the bowel, according to the physician in attendance, which he thought he had reduced and fancied all would go well. I was called 48 hours afterwards and found symptoms of intestinal obstruction. Vomiting had been continuous and excessive during the entire time. I opened the abdomen through right rectus sheath and found the hernia still existing with gut gangrenous. (Case No. 34.) Patient died of peritonitis. In the other case of this variety (Case 44) I was called to it as a case of intestinal obstruction, no lump at the hernial ring existing, nor had there been. I opened the abdomen in the same way and found the strangulated bowel at the internal ring on the right side. Patient made an excellent recovery.

Sac and Contents Reduced Into Abdomen, Strangulation Still Existing: This case shows the disadvantage of forcible taxis. Case No. 34.

Case of Ruptured Bowel: With immense fecal abscess. Recovery. Case No. 79. The case is of unusual interest, so I will briefly give the history. Last August I was called to Shepherdstown, W. Va., to see a young married woman who was desperately ill, and I obtained the following history: She was about 35 years of age, had suffered for some years with a left inguinal hernia for which she had worn a truss. About ten days prior to my visit it got down and became strangulated; her local physicians could not reduce it, so sent to Baltimore for a surgeon, who used taxis and thought he had succeeded in getting it reduced, since he had got the protusion pushed up so that the lump disappeared. Everybody was happy but the patient: the vomiting which she had did not subside; pain continued for several days, at the end of this time the patient became very weak, but the vomiting all of a sudden stopped and they hoped improvement would follow. In a very short while, however, a large doughy mass made itself apparent in the left inguinal region, rapidly extending until the whole side around to the back was one big fluctuating mass; the limits of this mass extended from the midline in front to the midline in the back, from the ribs above to well below Poupart's ligament and around below the great trochanter of the femur. This huge area became red and inflamed and so boggy in the back that the local physicians made an opening in the back, allowing the escape of several quarts of feces. This was the condition I found her in; horribly septic; very high temperature, with a very rapid and shocking pulse. In other words, it was a case of a strangulated hernia which had not been reduced, the pinched bowel remaining in the canal became gangrenous and gave way, and this huge mass was simply an enormous fecal abscess which had dissected up all the tissues of the abdominal wall and extended around to the back. Her condition was so critical that I refused to do anything for her at her home and had to bring her to Baltimore to the University Hospital and, under cocaine, I opened this abscess in every direction and came down upon the pinched bowel which was lying in the canal perfectly gangrenous. Her condition did not warrant any further interference at that time. She soon picked up and recovered from the sepsis, and after she recovered I was able to attend to the restoring of the bowel.

Large Umbilical Hernia: Due to fibroid, weighing 48

pounds. Operation under cocaine. (Case No. 64.) Patient made an uninterrupted and excellent recovery.

Femoral hernia is more common in the female than in the male in about the proportion of 4 to 1.

Of 100 persons ruptured McCready gives the following distribution:

Male inguinal 83.5%.

Female inguinal 8.5%.

Male femoral 2.1%.

Female femoral 5.9%.

Femoral hernia in the female is less frequent than inguinal. This is contrary to the general impression.

Method of Treatment of Umbilical Hernia in Children: This I consider one variety of hernia that seldom calls for operative interference, certainly not until careful mechanical devices have been long tried and proved unsuccessful. I will give briefly the plan of treatment I resort to in these cases. It is a very simple device and gives most excellent results. It consists of a broad strip of adhesive plaster, about 2 inches in width, long enough to encircle the body, in which is placed a thin circle of wood the size of a half dollar, or what answers equally as well, is an ordinary poker chip. This is placed immediately over the protusion and the recti muscles are pushed together and held together by the adhesive strip passed around the body and made fast. This the child can't get away from and it is left in place or worn night and day continuously, being changed about every ten days or two weeks and a fresh strip applied. The skin becomes irritated at first but soon gets tolerant so that it is worn without much discomfort. The pad is perfectly flat and the plan of treatment very simple and answers better than any other device that I know of. I think every case of umbilical hernia in children should be given the benefit of this device before any operation is thought of, as I have had many cures follow this method of treatment.

In the following table the cases have been taken as they have come for operation, and accordingly they have been tabulated with only brief data relating thereto and classified into inguinal, femoral and umbilical.

I wish to call attention to the fact (which the table will show) that the mortality has been *nil* in all of the operations for the radical cure in the nonstrangulated varieties.

TABLE OF HERNIA CASES.—No. 116.

Nonstrangulated, 73 cases. No deaths.	
INGUINAL HERNIA. Number of cases, 95.	No. 1. Case 1. Died of peritonitis from gangrenous gut.
	No. 2. Case 4. Died of shock from resection of gangrenous gut.
	No. 3. Case 34. Died of peritonitis which existed when operation was performed. Properitoneal variety.
	No. 4. Case 81. Died. Peritonitis, volvulus of entire omentum.
	No. 5. Case 91. Peritonitis existing at time of operation. Ruptured gangrenous gut.—Resection not resorted to.—Gut left open in wound.
Strangulated, 22 cases. Number of deaths, 5.	
Nonstrangulated, 2 cases. No deaths. Radical operation	
FEMORAL HERNIA. Number of cases, 12.	Strangulated, 10 cases. Number of deaths, 1.
	Case 97. Male. Resection of gangrenous gut. Death in 48 hours from shock and peritonitis existing at time of operation.
Nonstrangulated, 5 cases. Radical operations. No deaths.	
UMBILICAL HERNIA. Number of cases, 8.	Strangulated, 3 cases. Number of deaths, 1.
	Case 9. Death—peritonitis. Radical operation on very large strangulated ventral hernia.

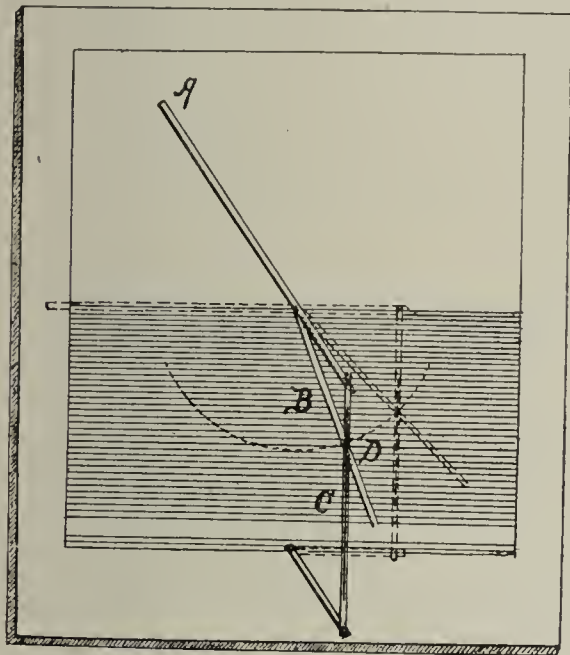
One case of strangulated Littre hernia with a gangrenous and ruptured bowel. Duration of strangulation—14 days. Died from emphysematous gangrene due to the bacillus aerogenes capsulatus.

MODELS FOR DEMONSTRATING THE ELEMENTARY PHYSIOLOGY OF VISION.*

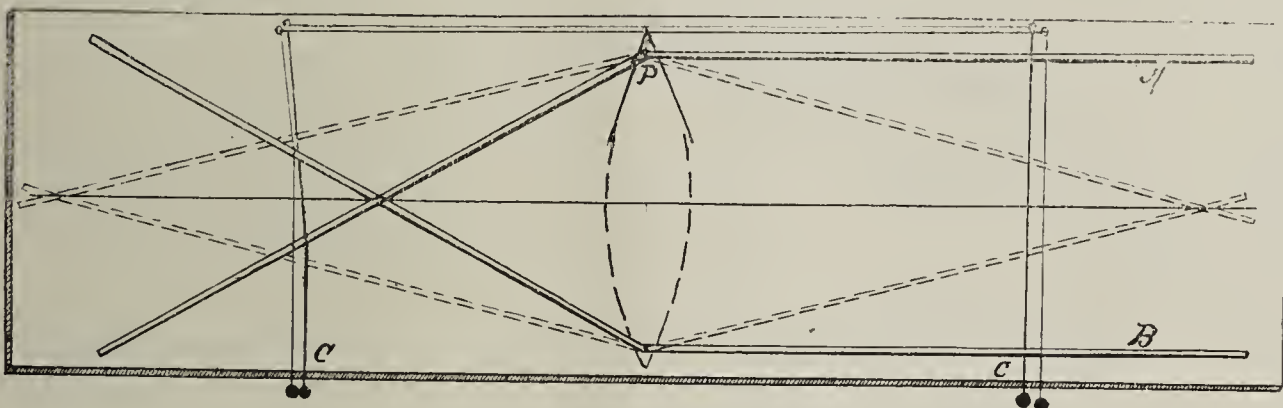
By B. ALEX. RANDALL, M. A., M. D.,
of Philadelphia.

Clinical Professor of Otology in the University of Pennsylvania.
Eye and Ear Surgeon to the Children's Hospital, etc.

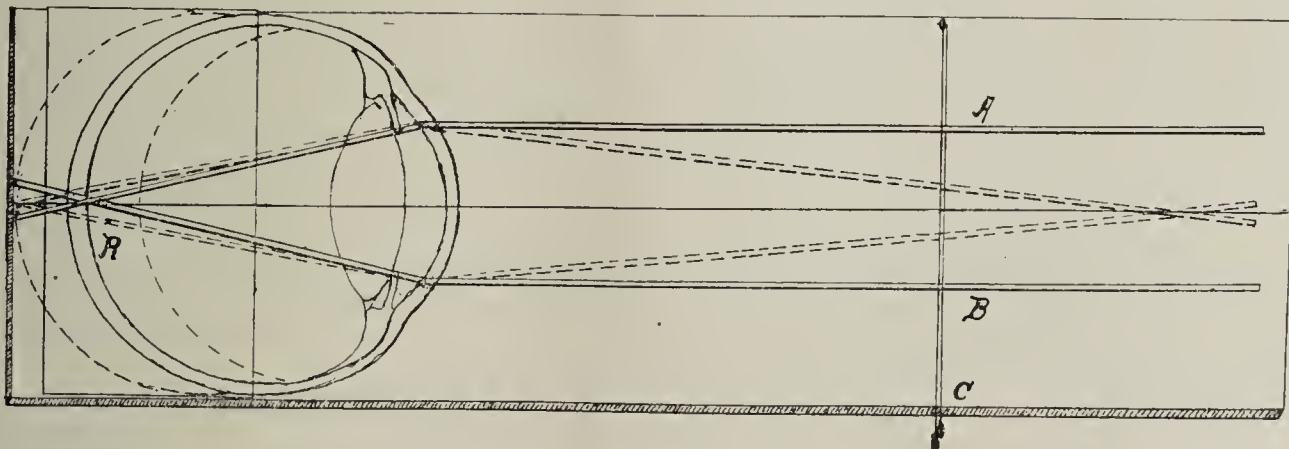
The value of models as a means of demonstrating various problems of the physiology of vision was brought to my notice by some apparatus of Gariel's which I saw in Paris in 1884, and which I copied and



No. 1.



No. 2.



No. 3.

their availability, after eighteen years, that I think it well to invite attention to them and the value of models in general.

The working model has the great advantage over diagrams for demonstrating optical matters, that it avoids the confusion of multiplied lines indicating the primary and secondary directions of rays of light and approaches, with gain in simplicity, the fulness of demonstration made with actual light-beams and lenses, while the size can be whatever is desired to make it readily discernible in the largest class-room. My effort has been to keep the apparatus in its simplest form, such as I myself constructed it and as any colleague can do for himself at minimum expense; for it has been my unfortunate experience that these appliances in the hands of instrument-makers almost invariably gain hugely in cost and complexity at the expense of their efficiency. Yet I will advise that any intended for persistent employment should be constructed in a little more durable fashion than some of mine.

The first model is that of Gariel (Fig. 1), demonstrating the refraction of a ray of light at the border surface of two unequal media; in the simplest manner it demonstrates the path of the incident and refracted ray, whether passing from the rarer or from the denser medium, as also the critical angle and the total reflection, and all on

modified for a course of instruction in the University of Pennsylvania that year. One or two of these have been recorded, as have some appliances devised by Priestly Smith, Howe and others, but not often in a connected series attempting to illustrate

the basis of the geometrical construction of the cosine, so that it is as accurate as it is simple.

The second model (Fig. 2) shows refraction by prisms, and the virtually prismatic nature of the lens, and makes unmistakably clear the principal

most of the cardinal problems. This year, when I gave the instruction in ophthalmology in the University of Pennsylvania, in place of the lamented Wm. F. Norris, I furbished up my old models for renewed demonstration and was so well pleased with

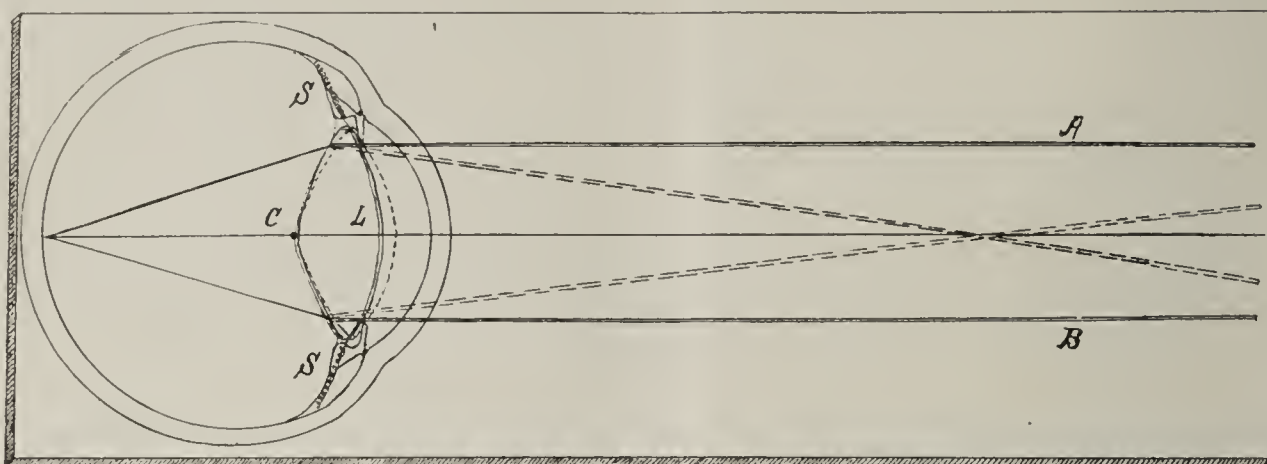
foci and the matter of the conjugate foci of the convex lens, on the secondary axes as well as the principal, with the formation of the inverted image.

The third model (Fig. 3) presents the eye in its variations of axial length, and the formation of clear images or of diffusion circles upon the retina in the various forms of refraction, and for parallel, con-

*Read before the American Ophthalmological Society, July 18, 1902.

vergent or divergent rays. The static refraction of an eye being thus shown to depend upon the relation of its refractive media to its axial length, the need becomes evident of a power of accommodation or focussing.

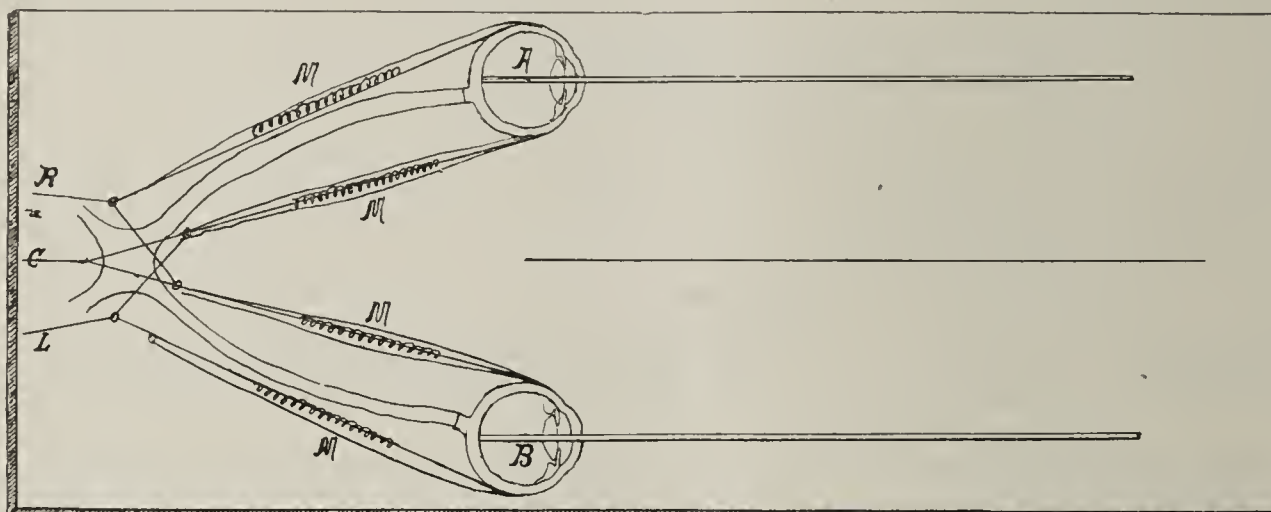
comitant strabismus, and its correction by effort within the region of relative accommodation and convergence. Although complex, this last model, which was reported in the *Ophthalmic Review* some 15 years ago, seems to serve a very useful purpose



No. 4.

The fourth model (Fig. 4) seems an improvement upon those of Howe and of Smith for demonstrating the Helmholtz theory of accommodation; and, with no exaggeration of the proportions of the eye, shows the adequacy of the ciliary action to produce the extreme changes of accommodative effort.

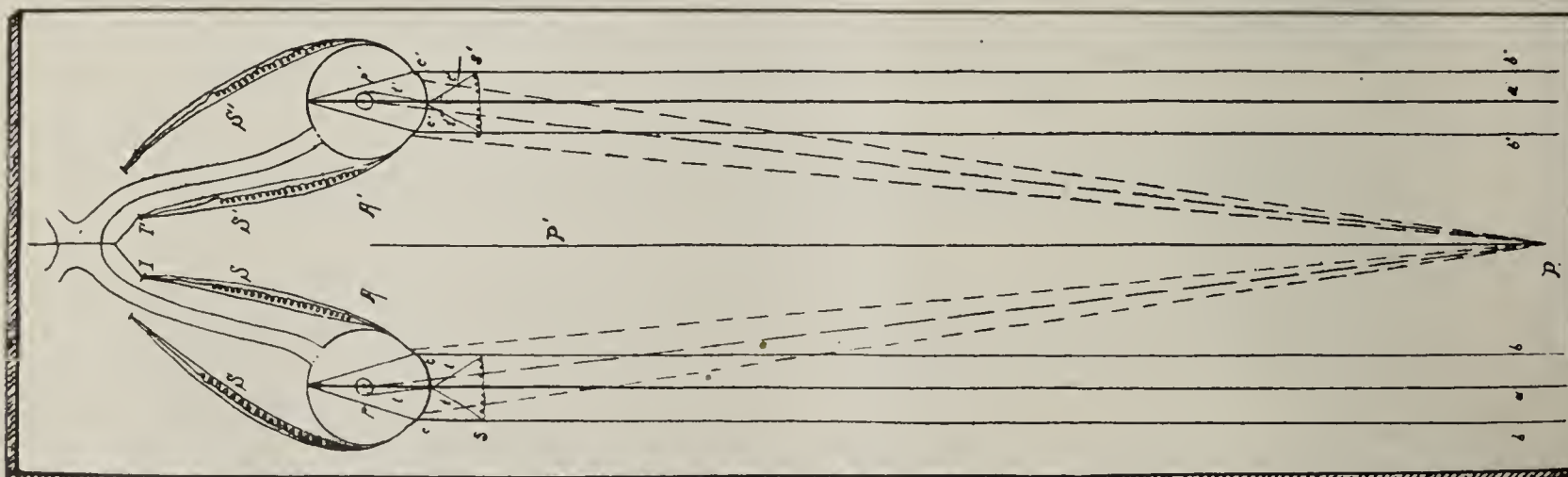
in clearing up what is to many students an extremely difficult field and reduces to mere mechanical principles a series of problems which are often regarded as mysterious and are confused rather than clarified by the transcendental explanations too frequently published.



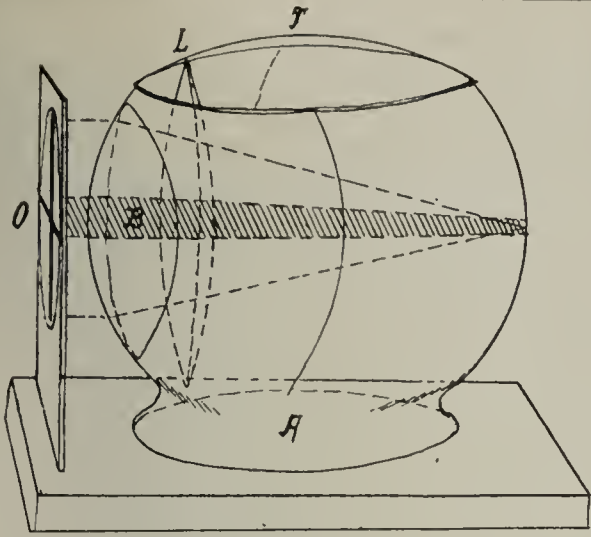
No. 5.

The fifth model (Fig. 5) gives the relations of lateral movements of the eye in convergence or in consensual rotation, while the sixth (Fig. 6) undertakes to demonstrate the co-relation of accommodation and convergence, with the production of con-

One more model (Fig. 7) gives a simple demonstration of the astigmatic eye and serves to illustrate the toric curves of the astigmatic cornea and the correction or aggravation of the aberration by the astigmatic crystalline lens, and this with appar-



No. 6.



No. 7.

atus so simple that each student could readily construct it for himself. It needs only a common glass globe and some convex cover-glasses, easily obtained, in order to give us the most perfect demonstration of the astigmatic eye with which I am acquainted. It consists of a wide-mouthed gas-globe, preferably of clear glass, upon the inner surface of which is cemented a plane glass to form a cell which can be filled with water or other fluid, or the space can be merely filled with balsam. This gives us a planoconvex lens of which the outer surface is toric, its horizontal radius being that of the horizontal plane of the globe, while the vertical is so much shorter that, with water filling the cell, there is astigmatism of four diopters, which in many models is in the form of simple hypermetropic astigmatism. A crystalline lens, constructed by apposition of two convex cover-glasses, such as are used for covering oval miniatures or photographs, forms a toric bi-convex lens some five diopters astigmatic when filled with water, and, when placed in the proper position within the astigmatic eye, with its long axis vertical, I have found this exactly to correct the corneal astigmatism and to furnish an emmetropic or simply myopic eye. When this lens is rotated through a quadrant, it doubles the previous astigmatism, giving us a mixed astigmatism of about five diopters, myopic and hypermetropic. This is most readily demonstrated by filling the globe with smoke and throwing a parallel beam of light through it, employing a cross-stenopaic slit of which one element is colored. The demonstration of the astigmatic pencils of the cornea and of the lens is easy and complete, and the correction or doubling of the astigmatism by the positions of the astigmatic crystalline is at once easy. Even without any preparation the globe, as found in the shops, forms an excellent model of the astigmatic cornea and makes clear to the most casual observer the difference of its curves and foci.

A Foreign Body in the Rectum.—Preindlsberger (*Wiener klinische Rundschau*, September 7, 1902) reports the case of a Bosnian farmer, who, noting a large rectal prolapse after unworked exertion, tried to replace the prolapsed bowel by sitting upon a stick. He fainted, but realized, upon regaining consciousness, that the stick had disappeared in the rectum. The piece of wood could be palpated 8 cm. inside the rectum, on his arrival at the Sarajevo Hospital. By operation, a forked piece of wood, 33 cm. long, with its shorter arm 30 cm. long, was removed. Recovery followed rapidly.

[M. O.]

A CASE OF EXOPHTHALMIC GOITER PRESENTING SOME UNUSUAL FEATURES.

By CHARLES S. POTTS, M. D.,

of Philadelphia.

Instructor in Nervous Diseases at the University of Pennsylvania. Neurologist to the Philadelphia Hospital.

Summary.—A man, aged 39 years, in addition to most of the usual symptoms of exophthalmic goiter, showed a marked ankle clonus, which disappeared as his condition improved, and suffered from attacks of either partial or complete unconsciousness, marked improvement following the use of sodium phosphate and the treatment of a chronic hypertrophic rhinitis.

History.—A. T., aged 39 years, has worked in the coal mines for the past 27 years. The family history is negative. He had typhoid fever (25 years ago) and numerous attacks of rheumatism. With the exception of the excessive use of tobacco, his habits are good. He is the father of four healthy children and has always worked very hard. Five years before coming to the University Hospital (in April, 1900), he began to suffer from flashes of heat, followed by profuse sweats and sometimes by a chill. In April, 1899, he was seized, without known cause, with a violent attack of diarrhea. Similar attacks have occurred at intervals since. About this time also, he began, especially after extra hard work, to have spells which he described as a feeling of intense weakness, with black specks floating before the eyes and violent sweating. On two occasions, in July, 1899, during these attacks, in addition to the above symptoms, he had intense nausea and vomiting, then fell to the ground and was unconscious for an hour or more. In addition to the attacks just described he has had a number of others, in which, while he is apparently unconscious for a half hour or more, he knows what is going on about him, but cannot speak or move. These attacks usually come on while he is sitting in a chair, and he does not fall. After the attacks of complete unconsciousness in July he was excessively weak for some time and then first noticed trembling of the hands and legs, at this time these were very violent, they then improved some, but have continued with greater or less severity ever since. From this time on he also began to lose weight, and when admitted to the hospital his weight was 80 pounds less than normal. On examination the patient showed evidences of having been a large, well-developed man, his clothing, which once fit him well, was now much too large for him. His expression was somewhat staring, but there was no exophthalmus. When stripped, the body was covered with sweat, which ran off of him in streams. On the back there was a considerable eruption of acne and a number of pigmented scars. The thyroid gland was considerably enlarged and soft to the touch. There was considerable pulsation of the carotids and in the epigastric region. The heart sounds and the area of cardiac dulness were normal, the pulse was regular, weak and rapid (120). When sitting there was a rapid tremor of the legs; this was much increased when he stood, the patient stated "that the calves feel as if there was a ball of lead in them." When he started to walk the tremor disappeared and the gait was normal; if, however, the patient attempted to walk any distance, the legs frequently gave way under him. When at rest no tremor of the hands was noticed, but when the arms were extended a rapid and rather coarse tremor was observed. The knee jerks were active and *ankle clonus was present*. This was not easily exhausted, but was persistent. His other reflexes were normal. There were no other motor or sensory symptoms. The temperature ranged from 97° to 100° and the blood count showed: Red cells, 4,060,000; white cells, 6800, and hemoglobin, 88%. He passed large quantities of normal urine but drank large quantities of water and had a voracious appetite. Examination of the eyes by Dr. Mellor showed no gross changes, but hysterical color fields as shown by their reversal.

Under treatment by rest, cold over the cardiac region and suprarenal extract, he did not improve; in fact, he became much worse, although this may be dated from a severe fright that he received which

sent his pulse-rate from 90 to 130, where it remained for several days, and was associated with increased weakness and loss of weight. He was then placed on sodium phosphate, gr. xv. t. i. d., in place of the suprarenal extract; in the course of a week he stated that he felt better, and his pulse-rate began to decrease. Three weeks after being placed on this treatment it was noted that the tumor was much less, the goiter was hardly visible and the pulse-rate 80. At this time treatment for a hypertrophic rhinitis, from which he had suffered for a long time, was begun. Shortly after this the improvement became more marked, and the patient stated that this was coincident with the improvement in the nasal condition. From this time his improvement was constant until his discharge, on October 15, 1900, at which time the pulse-rate was normal, the goiter and tremor were not perceptible. No ankle clonus was present on the right side, and a very slight one on the left. Two months after this the patient was again seen, his condition being about the same as when discharged, with the exception of a gain in weight of 12 pounds. On October 25, 1901, about one year after leaving the hospital, he was last heard from; at that time he wrote that his weight was 190, as against 130 pounds when he came to the hospital, his pulse-rate was 80, he was able to work and had recently been duck-shooting. He stated that he was all right so long as "he did not get into any arguments." He had been taking no medicine (sodium phosphate) for a month.

This case seems to be of special interest for these reasons: The patient was a man; as is well known this disease is much less common in the male sex. In 200 cases analyzed by Eshner, 161 were females. The existence of an ankle clonus, which was marked and not easily exhausted as is the case with the spurious clonus sometimes seen in hysterics, and which disappeared as the patient improved, was an unusual symptom. I have been unable to find it mentioned as a symptom anywhere excepting in the monograph of Möbius¹, who says that during the development of the disease ankle clonus may be noticed; after some time this may disappear again.

Oppenheim², while he does not specify the possible existence of an ankle clonus, says that the *deep reflexes* may be *increased* or *diminished*.

This case would seem to show that we may have a well-developed ankle clonus present in cases in which there is not organic disease of the cord. In reference to its occurrence in functional disease, notably hysteria, there has been some discussion among neurologists, some denying that a persistent clonus ever occurs in functional disease, although practically all admit that we may have a weak, easily exhausted clonus, and that even this is rare. It is not thought that in this case the clonus was of hysterical origin, although evidently due to some functional disturbance of the cord, probably caused by the poison of the disease.

The occurrence of attacks of apparent uncon-

sciousness. Exophthalmic goiter may be rarely complicated by either hysteria or epilepsy. The hysterical character of the attacks in this case seems evident from their description, and this is further emphasized by the presence of other hysterical stigmata, i. e., reversal of the color fields. While his attacks in the main were hysterical in type, it is interesting to note that two of his attacks were attended with complete unconsciousness, lasting for a considerable period of time, and that they came on after undue exertion and were followed by more active symptoms of the disease. In this connection the following quotation from Möbius³ is of interest. He says: "Many authors believe that in some cases epileptic attacks occur in the course of Basedow's disease. In most cases these attacks are either complications or hysteroid; in some cases, however, it is probable that they are caused by the *poison* of Basedow's disease. No absolute judgment is possible from the material available."

The marked improvement which ensued from the use of sodium phosphate, and especially the correction of disease of the nasal mucous membrane. Cases of exophthalmic goiter following extranasal disease have been reported by a number of observers⁴, in which treatment of the latter caused improvement in the former. The condition of the nose and throat should certainly be investigated in all cases of exophthalmic goiter.

The exacerbation of the symptoms after a fright is of interest in view of the possible influence of such emotional disturbance in the etiology of the disease.

Since writing the above, a letter, dated August 25, 1902, has been received from the patient. In it he says that he is feeling well, his pulse ranging from 70 to 80, weight 184, and he is working as a miner every day. The only symptom present is some enlargement of the neck. He has had no treatment for nearly a year.

WHAT CLASS OF PULMONARY PATIENTS DO WELL IN COLORADO?

By W. A. CAMPBELL, M. D.,
of Colorado Springs, Colorado.

"No pathologist of repute will dispute the assertion that tuberculosis is present in two-thirds of mankind. It is universally conceded that two-sevenths of mankind succumb to tuberculosis of the lungs alone. Including cases of intestinal, bone, joint and gland infection, it would be perfectly safe to raise the limit that minute amount which would bring the fraction to two-sixths. We will say, therefore, to be within the limits of perfect safety, that two-thirds of mankind are affected with tuberculosis, and one-third dies of the disease."

The foregoing statement was made by the late Dr. Jas. T. Whittaker in a paper read at the medical section of the American Association, in Denver, in 1898. Many of those who heard the paper thought the statement an extreme one. When we stop to

1. H. Nothnagel, *Specielle Pathologie und Therapie*, Band XXII.

2. Oppenheim, *Diseases of the Nervous System*.

3 Loc. cit.

4. Gordon, contributions to the study of exophthalmic goiter, *Philadelphia Medical Journal*, Volume 5, page 1425.

consider what it says and means, we are confronted with one of the most serious propositions before the medical profession to-day and in days gone by. Ravages of the plague, smallpox and cholera dwindle into insignificance when compared with those of tuberculosis in its manifold forms. It enters our household like a thief in the night, and takes from us the fairest of the number. Those attacked are not always responsible for the invasion of the destroyer. It may come as an inheritance; it may come from environments beyond the control of the individual having it; it may come as the result of devotion to science; or it may come when caring for a loved one. No difference how it comes, it is an unwelcome and dangerous guest.

Often those attacked are able to battle successfully with the intruder and come out victors. They do not always know of the presence of the enemy. That there are many unrecognized and cured cases of tuberculosis occurring in the practice of every medical man cannot be denied. Recognizing this fact, and in confirmation of it, Knopf has compiled a table which shows that of all autopsies of those dying from causes other than pulmonary tuberculosis, healed tubercular lesions were found in the lungs of 25 per cent.

It is not our purpose to enter further into the consideration of the prevalence of tuberculosis. Enough has been said to suggest, if not to prove, the prevalence of the malady, both recognized and unrecognized. Such being the facts, does it not behoove thoughtful physicians, in whose hands the life and health of this country are placed, to study well the proposition as to what to do with these suffering millions? We are pleased to note that the physicians and the public benefactors are recognizing the importance of giving this subject their most profound thought. Sanatoria are being established in many of the eastern states, and the disease treated with much more success than it can possibly be done in a private home. Our great western sanatorium, the eastern slope of the Rocky Mountains, holds out great inducements to the stricken ones. Its altitude; its beautiful mountain scenery; its pure air; its sunshine and its dryness, all beckon them to come. The sick are ever ready and eager to try something new that bears the promise of benefiting them. This desire on the part of the pulmonary tubercular subject is more noticeable than in any other disease. Many who come to our state would do very much better and have been much more comfortable at home than they were by coming. Hence the necessity of studying the character of the patients sent to Colorado, and "What class of pulmonary patients do well in Colorado?"

I know no better way to work out this problem than to analyze a series of cases sent to Colorado by the physicians of the great Mississippi Valley. In doing this I do not want you to consider for a moment that I am criticising you as physicians for sending many of these subjects to Colorado. Many of you are at sea where to send these patients, who are clamoring for relief and demanding that you do something or send them somewhere. There-

fore, if what I show you will, in a degree, help you in this ordeal, my paper will not be for naught.

As I wish to show you the character of the patients on arrival in Colorado, and, as nearly as possible the outcome of the cases, I have excluded all except those who had recently arrived in our city. Adhering strictly to this classification or assignment of cases, my percentages are slightly at variance with those of physicians who consider in their statistics all cases coming under observation. In my effort to be terse I fear that I may not at all times make my language clear.

Of the 250 cases which I report to you, 129 were in males and 121 females. The benefited in the males were 60 per cent.; in the females, 50 per cent. The apparent better results obtained in the males can be accounted for by the fact that of all first-stage cases 65 5-7 per cent. were males and only 34 2-7 per cent. females. In the first-stage cases the benefited reached 92 per cent.

The average weight was 118 pounds. The average age was 29 4-5 years. There were 21 who were 20 years and under, in whom the mortality was 51 per cent.; 120 who were between 20 and 30 years, and 109 were 30 years and over. There were 125 married and 125 single. Social conditions made no material difference in the disease or results. Twenty-nine states and five foreign countries furnished the cases. They were as follows: Illinois 47, Missouri 28, Ohio 27, Iowa 23, New York 17, Pennsylvania 11, Indiana 11, Massachusetts 8, Nebraska 7, Michigan 7, Kansas 4, New Jersey 2, Kentucky 7, Rhode Island 6, Wisconsin 5, Texas 4, Minnesota 4, Vermont 3, Delaware 2, North Carolina 1, Louisiana 2, California 1, Mississippi 1, Alabama 1, Indian Territory 1, Arkansas 1, Maine 1, Oregon 1, Colorado 1, England 5, Canada 7, Ireland 2, Austria 1 and Sweden 1.

One hundred and fifty came from families having a tubercular history. Of this number 51, or 34 per cent., are known to have died; 53 per cent. were benefited by coming; the remaining 13 per cent. are those who have not improved or of whom we have no history. Most probably the latter class are doing poorly or are dead. It is composed of those who are far advanced in the disease, are restless and drift on of their own accord, or are advised to do so by their physician on account of complications that unfit them for high altitudes. This class has to be considered in all my percentages.

Of the 100 who had no family history of tuberculosis, 30, or 30 per cent., are dead; 59 per cent. were benefited, and 11 per cent. are of the unimproved and those with no history. We note that the percentage of deaths is greater in those of tubercular history, and the percentage of those benefited less.

There were 21 in whom the first evidences of the disease had not existed longer than three months. Of this number 73 per cent. were benefited, 19 per cent. died and 8 per cent. were of the unimproved and those with no history.

There were 84 in whom the disease had existed longer than three months and less than one year.

Of this number 56 per cent. were benefited, 35 per cent. died and 9 per cent. were of the unimproved and those with no history.

There were 145 in whom the disease had existed for one or more years. Of this number 52 per cent. were benefited, 33 per cent. died and 15 per cent. were of the unimproved and those with no history. We note that, as the length of time of having the disease increases, the percentage of those benefited decreases.

The left lung was involved alone in 64 cases. Of these, 66 per cent. were benefited, 20 per cent. died and 14 per cent. were of the unimproved and those with no history.

The right lung was involved alone in 88 cases. Of these, 68 per cent. were benefited, 22 per cent. died and 10 per cent. were of the unimproved and those with no history.

Both lungs were involved in 98 cases. Of these, 28 per cent. were benefited, 50 per cent. died and 22 per cent. were of the unimproved and those with no history. It will be noted that the percentage of those benefited is slightly in favor of the right lung. Also that the right lung is more frequently affected than the left. Further we note the high percentage of deaths when both lungs are involved; also the low percentage of those benefited and the large number of unimproved and those with no history. The latter is due to the sending away from the high altitude of those of greatly diminished lung capacity; hence we lose their history.

There were 70 in the first stage of the disease. Of these, 92 per cent. were benefited, 1 3-7 per cent. died and 6 4-7 per cent. were of the unimproved and those with no history.

There were 110 in the second stage of the disease. Of these, 54 per cent. were benefited, 32 per cent. died and 14 per cent. were of the unimproved and those with no history.

There were 70 in the third stage of the disease. Of these, 13 per cent. were benefited, 62 per cent. died and 25 per cent. were of the unimproved and those with no history.

We note the rapid decline in the number benefited as the disease advances, falling from 92 per cent. in the first stage to 13 per cent. in the third stage.

Of the total number of cases 17 3-5 per cent. were cured. There are no symptoms whatever of the former disease except a diminution of vesicular murmur and in some cases a slight dulness in the former consolidated area; 38 2-5 per cent. were benefited. In 90 per cent. of those who are classified as benefited two years or more have elapsed since they came to Colorado. This was formerly considered the average duration of the disease. If at the end of two years our patients are living and in a better condition than on arrival, they can be counted with those who are benefited. This rule is the one followed in this paper. These people are now able to live in comfort, and many of them are engaged in gaining a livelihood. A portion of this latter number will no doubt continue to improve and will later be classed with the cured. The total number benefited by coming to Colorado is 56 per cent. This is a lower percentage than is usually given for all

classes of cases, but I have not put into this classification those who have done well for a time, and then gotten worse. The latter are classed with the unimproved and those who have no history, and constitute 12 per cent. Death has claimed 32 per cent.

The only complication that I shall call your attention to is hemorrhage. There were 98, or 38 per cent., who had hemorrhages. Of this number 16 per cent. were cured, 32 per cent. improved, or a total of 48 per cent. benefited. Of the 155 cases without hemorrhages, 19 per cent. were cured, 41 per cent. improved, or a total of 60 per cent. benefited. We note that hemorrhage made the chances of recovery slightly less in this series of cases. This fact has been observed in the east as well. The percentage of recoveries is no less at a high altitude than at sea level. With you in low or intermediate altitudes the question arises as to whether you should send your hemorrhagic cases to Colorado. The answer should be yes, other complications not interdicting. Experience has shown that hemorrhagic cases do well in Colorado when the hemorrhage occurs early in the disease. Patients from the east often start for Colorado and have a hemorrhage in Kansas City or Omaha. They fear to continue their journey, having been told that high altitudes conduce to hemorrhages, and accordingly return home or proceed on their journey with fear and trembling. This is all a mistake, and should not be encouraged by the profession. As they proceed to a higher altitude, physiological changes take place. The heart may act more rapidly, but the arterial tension is lowered. The diminished atmospheric pressure has caused a dilatation of the external capillaries over the surface of the body, thus with more blood distributed to the peripheral capillary circulation and with a diminished intravascular tension, the vessels of the diseased tissue are not under so great a tension and the chances of hemorrhage are less.

You will note that 54 per cent. of those in the second stage of the disease and 13 per cent. of those in the third stage are benefited. Although this improvement may be only temporary, two years or more, it holds out a hope for those who have delayed their coming to Colorado. Life may be a burden, but at the same time they want to put off the final hour as long as they can. When the home physician has done all he can for them, and no longer has a new remedy to stimulate their hopes, they naturally look to the last resort and make a change of climate. Their lives may be prolonged, even in those cases which finally end in death in a few months, but it is often a question whether this prolongation is justifiable when we consider how they are deprived of home and all it signifies. These are the cases in which a physician has to do good work. It is plain to him that all first-stage patients are benefited with but few exceptions. But to be able to advise in advanced cases he must use good and tried judgment. It is better, perhaps, to err in sending cases that should not come, than to keep from sending cases that ought to have come.

In selecting cases for high altitudes, do not send

those with acute miliary tuberculosis. Do not send phthisis florida cases. Those with excessive nervousness, irregular and rapid hearts and high temperatures do not do well. Let them remain at home for a time until the acute attack has subsided. Cases well advanced with rapidly breaking down of lung and high temperature should not come. Those having cardiac dilatation or acute endocarditis or myocarditis should not come. A cardiac murmur is no contra-indication if there be no dilatation or if compensatory hypertrophy has taken place. Those having Bright's disease should not come. Advanced laryngeal cases or advanced intestinal cases do not do well. Advanced fibroid cases do not do well, as a rule. They suffer from dyspnea owing to want of lung elasticity and the rarefied air.

It is important that those coming have sufficient means to support themselves for a time after arrival. After they become acclimated and their improvement is well established, it is well for them to have some light, properly selected employment. In this way their minds are engaged, and they, in a degree, overcome their homesickness, which is one of the most depressing things we have to meet. When it is husband or wife, father or mother, that is coming, the whole family should come if their finances will permit. Do not send them to Colorado with the promise that they can return home in two or three months, cured. Neither should you send them weighted down with numerous prescriptions, one for every symptom they have or may be likely to have. Such things are absurd. Tell them to go to Colorado, select the place they like best, choose their physician, and follow his directions closely. If you will do this, the physicians of Colorado, aided by the best climate in the world, will show you their best results.

In conclusion, allow me to make an appeal in behalf of the tubercular subjects that will come to the members of this association in the future. From the study of the first-stage cases under consideration to-day, we find 59 per cent. were cured and a total of 92 per cent. benefited. Compare, if you please, these percentages with those who come in the later stages of the disease, or after the disease has existed for many months, or when they have delayed in coming until both lungs were affected, and your duty is very apparent. Be ever alert and on the lookout for the first evidences of tuberculosis. Make a thorough investigation, both physical and microscopical, and if still in doubt use the serum. As soon as convinced of the existence of tuberculosis, advise them to go to a sanatorium arranged for the proper treatment of this disease, or to the great western sanatorium where the Master has arranged for their cure. We all know, only too well, the futility of trying to treat these patients successfully in their own homes. Let your watchword be: Early detection and early protection.

MENTAL SYMPTOMS OF NEURASTHENIA.*

By W. K. WALKER, M. D.,
of Dixmont, Pa.

First Assistant Physician to the Western Pennsylvania Hospital for the Insane.

Of the manifold symptoms of neurasthenia the most characteristic are the psychic or mental. It has been said that insanity is but an advanced and grave form of neurasthenia in which the cerebral involvement predominates. The vast majority of cases of neurasthenia, however, never develop into well defined mental disease, though there are few cases of the latter which do not, in their early stages, present the familiar symptoms of nerve-exhaustion, or in which there cannot be obtained a history of neurasthenic involvement at some previous time in their lives. Increasing knowledge of the etiology and pathology of disease of the central nervous system emphasizes the intimate relations existing between these conditions, and it is no exaggeration or mere form of statement to say that insanity is but a different phase and further development of the same morbid processes which lie at the root of neurasthenia. Heredity is the chief predisposing cause of both conditions, which develop under the common inciting or determining causes of overwork, emotional excitement, worry and loss of sleep—more briefly, under stress and strain, and the various intoxications, either from poisons engendered within the body or those introduced from without. Many authorities now believe that all causes which I have included in the general term of "stress," act principally through metabolic changes and consequent autointoxications which they entail.¹

That disturbance of function is the result of alteration in structure, is true of the nervous as of other systems and organs; although our present knowledge of the changes in the tissues involved will not always allow of our bringing them into definite relation with the clinical symptoms, we know they are intimately associated with nutritive disturbance in the nerve cells; whether this disturbance is due to protracted functional activity, or to acute and subacute poisonings, it is, in the early stages, capable of being repaired, but if the hurtful influence is prolonged the nutritive disturbance is aggravated and the lesion becomes more profound and even irreparable.²

The time limit of this paper precludes any exhaustive consideration of the varied and interesting mental symptoms of neurasthenia. I have thought it best, therefore, to dwell upon the more important and characteristic phases, tracing as far as practicable the "mechanism" or order of psychic involvement.

Present, then, in every case of neurasthenia, though varying widely in intensity and degree, the mental symptoms are to be regarded as evidence of involvement of the most complex part of the nervous system and are manifested in impairment of its highest psychic functions—thought, feeling, memory and will—with lessened ability to fix the attention and proportionate incapacity to perform ac-

*Read at a meeting of the Allegheny County Medical Society Jan. 21, 1902.

customed duties, either in the way of habitual tasks, or the complex relations of social life.

Just as the laws of general pathology are operative in the organ by which mind is made manifest, so certain principles are applied in elucidation of the order and sequence in which the mental functions are involved as a result of the defective, perverted or diseased functioning of the underlying nerve-cells; the first are, as a rule, the latest developed and most complex intellectual faculties. We, therefore, find associated with the manifold evidences of physical fatigue which characterize these cases, a set of subjective cerebral symptoms; of mental exuberance, it may be, though with diminished directing power or capacity for continuous thought—irritability and excitability which may or may not be associated with other hyperesthetic states; or impairment of memory, sluggishness in the processes of thought and weariness after intellectual work which, later, may develop into incapacity for effort or positive mental inertia. If encountered in one whose work requires complicated and finely co-ordinated movements, these subjective symptoms present the objective phase of impairment of the finer adjustments and consequent lack of precision in the performance of complicated muscular movements; tremulousness and weakness result in defective work and, finally, it may be, absolute incapacity for its further performance as evidenced in the occupation neuroses; the frequent origin of these in anxiety or emotional stress well illustrates the close connection of the mental with the physical symptoms.

As a result of this conscious diminution of directive power through weakening of the higher controlling centers, anxiety becomes prominently manifested and there is added to the sense of fatigue a general sensation of depression with all possible degrees of apprehension and anxiety, i. e., of emotional states represented in the extreme by fear. These depressive emotions expend themselves internally and not only modify and interfere with the various bodily secretions, but further tend to diminish action. Irresolution now becomes the characteristic mark of their condition and furnishes the basis for the development of the most constant and characteristic symptoms of cerebral neurasthenia, namely, morbid fears, the aboulias and obsessions; these present themselves in varied and diverse ways; in simplest form they consist of certain ideas which obtrude themselves upon the consciousness of the patient; at first only occasionally experienced, they recur again and again, eventually entirely dominating him. These phenomena, usually difficult to elicit because of extreme reticence on the part of the patient to admit of their existence, become easy of comprehension when considered as "manifestations of the general pathogenic factor—loss of will control." Their essential nature and origin are so clearly set forth by Berkley that I take the liberty of quoting him at length. "Nearly every one has experienced an irresistible desire, after the gas has been turned out, to go back and try the cock, not once, but repeatedly, or to see if the fire has been properly extinguished, or the door locked, a half dozen times before retiring, although we are perfectly well aware

that everything is right in the house. Despite this knowledge, if we force ourselves to abstain from these acts, we experience a vague sense of disquiet that may last for an hour or two afterward. Similarly the dreads, those of void places and crowded assemblages, and various other strange fancies, have for the main part their prototypes in the natural fears of childhood. Few children like to remain by themselves in a vacant room, or to be left in the dark or in a crowd, no matter how stable their nervous systems; and under such circumstances they quickly become anxious, and then either depressed or excited, according to their inherited disposition. Fear is a natural tendency of mankind, and when there is a pathogenic strain in the blood, any unusual incident may set up a reflex thought-train that is irresistible. These imperative conceptions are recognized by the adult patient as absurd, as an evidence that their ideas are not traveling in the beaten channels, but to resist them only produces a mental distress, while to yield is to increase their power over the unhappy individual."³

The aboulias result from impairment of the will which arises from this unfounded sentiment of fear. In simplest form they are encountered as peculiar notions and fixed ideas in persons easily worried and worked up about nothing. Again, we have involuntary mental questionings, which besiege the patient under the form of hesitations and indecisions of all sorts, and which he anxiously attempts to solve; they are found in the overscrupulous individual, as well as the "timorous" whose besetting fear is of committing some indelicate action or of unintentionally carrying away something of value: The "counters" whose doubts are manifested under the form of irresistible enumerations. Fear of objects or contacts; of dirt or defilement; of virus and poisons; of thunder and lightning and other infinitely variable forms. Any idea arising within the consciousness, whether it refers to abstractions, words, figures, persons or things, or any object whatever, may become fixed in the mind of a neurasthenic and consequently be the origin of an obsession. "The number of these is, therefore, unlimited, and we may say that there exist as many varieties of obsessions as there are thoughts occurring in the human mind."⁴

In other cases, representing a greater defect or degree of involvement of the mental faculties, we have the same instability of intellect, but, in addition, a greater participation and prominence of the feelings or emotions; they are most frequently met with in well-marked cases of mental disease but occur, as well, in patients who must be classed with the neurasthenics. The most exaggerated instances of these are homicidal and suicidal impulses which often arise to the heights of emotional crises and may be either consciously or automatically carried into execution.

Just as between the most silly or trivial acts and the most dangerous there is only a quantitative difference, so the character of the predominating impulse—intellectual, emotional or instinctive—becomes an index of the extent of involvement of the psychic centers. With the higher inhibitory and controlling power impaired or abolished, the in-

instinctive inclinations dominate and are given full sway. Thus, erotic and perverted sexual tendencies, dipsomania, kleptomania, pyromania, etc., are considered to-day as being different manifestations of psychological instability and lack of co-ordination varying with the peculiar idiosyncrasy of the patient in mental and physical constitution. The important feature of these symptoms is not so much the particular form in which they are manifested—but rather their significance as signs or stigmata of a constitutional neuropathy.⁵ Ribot says: "Not every one can have fixed ideas and obsessions; for their development a primordial condition—the neurasthenic constitution—is requisite. The latter may be inherited, or it may be acquired. Persons of the one class are the offspring of degenerate parents to whom they are indebted for the sad legacy of degenerative organs. These are by far the most numerous. The others have been exhausted by circumstances and mode of life; physical and intellectual fatigue, emotions, strong passions, sexual or other excesses, anemia, debilitating diseases, etc. Finally by both roads the same result is reached. And so the fixed idea, even in its simplest form—is nevertheless not a purely internal phenomenon. Quite the contrary. The organic symptoms by which it is accompanied indicate neurasthenia; symptoms such as headache, neuralgia, feelings of oppression, perturbation of motility, of the vasomotors or the sexual functions, insomnia. These psychic or mental phenomena are but effects, among many, of one and the same cause."⁶

From the foregoing it will appear that, occasionally, cases of neurasthenia present the profound psychic symptoms so commonly seen in the insanities having well-known anatomical basis, such as, paralytic dementia and syphilitic insanity. Further than this, it commonly happens that the earliest symptoms of these organic forms are those we habitually regard as functional. Almost invariably, in the forms I have named, is there elicited a history of vague nervous symptoms extending over a longer or shorter period of time; such as headache, sleeplessness, unpleasant dreams, loss of ability to do accustomed work, irritability, defects of memory, emotional facility, vague fears, etc. At the present time I have under my care two cases of paralytic dementia which were treated throughout their first year as neurasthenia and hysteria respectively. It is not my intention to deal with the differential diagnosis between these conditions; I refer to them because their closer study has helped to a clearer appreciation of the fact that the fundamental nature of neurasthenia lies in the nutritive disturbance in the cells which form the basis of the highest psychic functions. In organic cases the earliest phenomena of disturbed functions may be regarded as due to exhaustion of the nerve-cells from diminution in their food supply because of damage to bloodvessel walls: the progressive pathological change in the walls of conducting nutrient channels further interferes with their food supply and the cells eventually undergo destruction beyond all hope of reparative change. In the functional cases, or neurasthenias, we have to deal with nutritive disturbance in the cells of the controlling centers resulting from exces-

sive functional activity, anemia or toxemia which, under prolonged rest and limitation of their output of energy, correction of causal toxic conditions and provision of an easily assimilable and abundant food supply, may, and usually do, regain their normal state; even these cases, when based upon a more marked hereditary defect, may recover but incompletely, and certain peculiarities persist.

A knowledge of the wide variations in the cerebral manifestations of neurasthenia must impress upon us the fact that the essential thing, after all, is to recognize the foundation upon which they arise.

In closing I would emphasize the following points: Every case of neurasthenia presents mental symptoms in some form. The difference between neurasthenia and certain forms of mental disease is largely one of degree: in fundamental nature they are the same, i. e., a pathological lowering of the psychic functions—having the same etiology and, so far as we have yet been able to ascertain, the same underlying pathology of nutritive change in nerve-cells. Viewed in this light the mental symptoms assume greater significance, in many cases leading us to anticipate a greater degree of defectiveness to follow, depending upon duration and virulence of exciting causes, the peculiar nature of causal poisons and vulnerability of individual tissue; and when they are encountered in one of previous known mental weakness, instability or eccentricity, or in one of insane ancestry, they should lead to energetic measures—not only remedial and reconstructive, but to the ultimate regulation of the environment and conduct of the patient in order that more serious development may be prevented.

REFERENCES.

- 1 and 2. Ford Robertson. Pathology of Mental Diseases.
3. Berkley. Mental Diseases, P. 460.
4. Regis. Practical Manual of Mental Medicine.
5. Ribot. Diseases of the Will.
6. Ribot. Psychology of Attention. P. 83.

The Late Results of Nephropexy.—Duret (*Journal des Sciences Médicales de Lille*, September 6 and 13, 1902) has recently reported the case-histories of 4 patients upon whom he performed nephropexy for movable kidney, showing the late anatomical and clinical results achieved. The autopsy findings in a woman of 38, operated upon 6 months before death from phthisis, and the clinical condition in 3 other patients, operated upon years before, are described. While these cases were all successful, it is possible that the fixation of the kidney may be incomplete, yet accompanied with an amelioration of symptoms; sufficient functionally, yet allowing the lower end of the kidney to swing; or the kidney may remain mobile in spite of the operation. He concludes that, when nephropexy is well done, the permanent results are satisfactory as regards anatomical fixation and function. In cases of total enteroptosis, the operation often gives but imperfect results. [M. O.]

Sublingual Granuloma in a Child with Pertussis.—Bernheim-Karrer (*Wiener klinische Rundschau*, September 7, 1902) reports the occurrence of a sublingual granuloma in a boy of 9 months, who had had whooping cough for 8 weeks. He was very rachitic, showing bilateral craniotabes, bowed long bones, enlarged epiphyses, etc. Fracture of the right femur occurred without cause. First an ulcer, then a tumor appeared under the tongue in the median line. Upon applications of a 2% solution of argentic nitrate, the granuloma gradually disappeared. A review of the literature follows. [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the weeks ending November 8 and 15, 1902:

SMALLPOX—United States.			C.	D.
CALIFORNIA:	San Francisco....	Oct. 18-26.	1	
COLORADO:	Denver.	Oct. 18-25.	1	
ILLINOIS:	Chicago.	Oct. 25-Nov. 1.	2	
INDIANA:	Indianapolis.	Oct. 25-Nov. 1.	1	
IOWA:	Ottumwa.	Sept. 27-Nov. 1.	2	
KANSAS:	Wichita.	Oct. 24-Nov. 1.	1	
KENTUCKY:	Covington.	Oct. 18-Nov. 1.	22	
	Lexington.	Oct. 25-Nov. 1.	12	
MAINE:	Biddeford.	Oct. 25-Nov. 1.	1	
MASSACHUSETTS:	Boston.	Oct. 25-Nov. 1.	18	4
	Cambridge.	Oct. 25-Nov. 1.	1	
	Everett.	Oct. 25-Nov. 1.	1	
MICHIGAN:	Detroit.	Oct. 25-Nov. 1.	13	
	Grand Rapids.	Oct. 25-Nov. 1.	8	
NEW HAMPSHIRE	Nashua.	Oct. 25-Nov. 1.	23	
NEW YORK:	Binghamton.	Oct. 25-Nov. 1.	1	
	New York.	Oct. 25-Nov. 1.	1	1
OHIO:	Cincinnati.	Oct. 24-31.	3	
	Cleveland.	Oct. 25-Nov. 1.	11	8
	Dayton.	Oct. 25-Nov. 1.	1	
	Youngstown.	Oct. 18-Nov. 1.	1	1
PENNSYLVANIA:	Altoona.	Oct. 25-Nov. 1.	4	
	Erie.	Oct. 25-Nov. 1.	3	
	Johnstown.	Oct. 25-Nov. 1.	6	
	McKeesport.	Oct. 25-Nov. 1.	3	1
	Pittsburg.	Oct. 25-Nov. 1.	18	6
Two imported.				
SOUTH CAROLINA	Charleston.	Oct. 18-25.	2	
WISCONSIN:	Milwaukee.	Oct. 25-Nov. 1.	10	1
SMALLPOX—Foreign.			C.	D.
AUSTRIA:	Prague.	Oct. 4-11.	8	
BELGIUM:	Antwerp.	Oct. 11-18.	1	
	Ghent.	Oct. 11-18.	2	
CANADA:	Amherstburg.	Oct. 18-Nov. 1.	3	
	Quebec.	Oct. 25-Nov. 1.	1	
ECUADOR:	Guayaquil.	Oct. 12-19.	3	
FRANCE:	Paris.	Oct. 11-18.	1	
	Rheims.	Oct. 12-19.	1	
GREAT BRITAIN:	Liverpool.	Oct. 11-25.	21	
	London.	Oct. 11-18.	4	
INDIA:	Bombay.	Sept. 30-Oct. 7.	7	1
RUSSIA:	Moscow.	Oct. 4-11.	3	1
	Odessa.	Oct. 11-18.	1	
	St. Petersburg.	Oct. 4-18.	8	5
STRAITS SETTLEMENTS:	Singapore.	Sept. 6-20.	5	
TURKEY:	Constantinople.	Oct. 12-19.	1	
YELLOW FEVER.			C.	D.
COLOMBIA:	Panama.	Oct. 13-27.	12	1
ECUADOR:	Guayaquil.	Oct. 12-19.	1	
CHOLERA.			C.	D.
CHINA:	Hongkong.	Sept. 20-Oct. 4.	5	4
EGYPT:	Alexandria.	Oct. 4-11.	72	71
INDIA:	Bombay.	Sept. 30-Oct. 7.	7	2
	Madras.	Sept. 20-Oct. 3.	3	3
JAPAN:		To Sept. 30, 11,228	6302	
KOREA:	Seoul.	Sept. 27, between	50	
		and 250 deaths		
STRAITS SETTLEMENTS:	Singapore.	Sept. 6-20.	15	
PLAGUE.			C.	D.
INDIA:	Bombay.	Sept. 30-Oct. 7.	7	112
	Karachi.	Sept. 28-Oct. 5.	27	22
JAPAN:	Yokohama.	Sept. 27-Oct. 4.	4	1
SMALLPOX—United States.			C.	D.
CALIFORNIA:	San Francisco.	Oct. 26-Nov. 2.	6	
COLORADO:	Denver.	Oct. 25-Nov. 1.	3	
FLORIDA:	Jacksonville.	Nov. 1-8.	1	
	Lamont.	Oct. 18-Nov. 8.	4	
	Mayport.	Oct. 18-Nov. 8.	1	
	Pensacola.	Oct. 18-Nov. 8.	1	
ILLINOIS:	Chicago.	Nov. 1-8.	3	1
	Freeport.	Nov. 1-8.	4	
INDIANA:	Indianapolis.	Nov. 1-8.	2	
KENTUCKY:	Lexington.	Nov. 1-8.	13	
MASSACHUSETTS:	Boston.	Nov. 1-8.	8	1
	Cambridge.	Nov. 1-8.	1	
	Medford.	Nov. 1-8.	1	
MICHIGAN:	Detroit.	Oct. 25-Nov. 8.	20	
	Grand Rapids.	Nov. 1-8.	4	
MISSOURI:	St. Louis.	Nov. 2-9.	19	
NEBRASKA:	Omaha.	Nov. 1-8.	1	
NEW HAMPSHIRE	Manchester.	Nov. 1-8.	2	
	Nashua.	Nov. 1-8.	20	
NEW YORK:	New York.	Nov. 1-8.	4	1
OHIO:	Cincinnati.	Oct. 31-Nov. 7.	4	
	Cleveland.	Nov. 1-8.	12	5
	Hamilton.	Nov. 1-8.	1	
	Toledo.	Oct. 4-Nov. 8.	14	2
	Warren.	Oct. 25-Nov. 1.	1	

			C.	D.
PENNSYLVANIA:	Altoona.	Nov. 1-8.	1	
	Erie.	Nov. 1-8.	8	
	Johnstown.	Nov. 1-8.	5	1
	Philadelphia.	Nov. 1-8.	3	
	Pittsburg.	Oct. 25-Nov. 8.	52	8
SOUTH DAKOTA:	Sioux Falls.	Nov. 1-8.	1	
UTAH:	Salt Lake City.	Nov. 1-8.	1	
WISCONSIN:	Milwaukee.	Nov. 1-8.	20	

SMALLPOX—Foreign.

AUSTRIA:	Prague.	Oct. 18-25.	8	
BELGIUM:	Antwerp.	Oct. 18-25.	1	1
BRAZIL:	Bahia.	Sept. 27-Oct. 18.	4	
CHILE:	Pisagua.	Oct. 13.	6	
ECUADOR:	Guayaquil.	Oct. 18-25.	3	
GREAT BRITAIN:	Bristol.	Oct. 11-18.	1	
	London.	Oct. 18-25.	1	1
	Manchester.	Oct. 18-25.	1	
RUSSIA:	Moscow.	Oct. 11-18.	3	
	Odessa.	Oct. 11-18.	1	
SWITZERLAND:	Geneva.	Oct. 11-18.	1	

YELLOW FEVER.

COLOMBIA:	Panama.	Oct. 27-Nov. 3.	6	
COSTA RICA:	Port Limon.	Oct. 25-Nov. 1.	2	2
ECUADOR:	Guayaquil.	Oct. 18-25.	2	
MEXICO:	Progreso.	Oct. 17-24.	1	1
	Tampico.	Oct. 26-Nov. 2.	5	
	Vera Cruz.	Oct. 25-Nov. 1.	7	5

CHOLERA—Insular.

PHILIPPINE ISLANDS:	Manila.	Sept. 14-20.	49	33
	Provinces.	Sept. 13-20.	3,853	2,454

CHOLERA—Foreign.

EGYPT:		July 12.	38,083	32,377
		Oct. 25-Nov. 1.	225	22
JAPAN:	Alexandria.	Oct. 11-18.	58	55
	Kobe.	Oct. 4-11.	49	22

PLAGUE—United States.

CALIFORNIA:	San Francisco.	Oct. 28.	1	1
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PLAGUE—Foreign.

INDIA:	Karachi.	Oct. 5-12.	13	8
RUSSIA:	Odessa.	Oct. 18-25.	45	16

REVUE DE MEDECINE.

August 10, 1902. (22 me. Année, No. 8.)

1. The Psychological Element in Hysterical Hemianesthesia. BERNHEIM.
2. Castor Oil and Its Medicinal Use in Ancient Egypt. V. LORET.
3. Some Reflections on the Pathogenesis of Phlebitis. CENSIER.
4. Concerning Anguish. P. LONDE.
5. The Pathological Forms of Emotive Blushing. P. HARTENBERG.

1.—Bernheim has shown, in a previous publication, that hysterical anesthesia is purely psychical, and that it has the same characteristics as the anesthesia produced by suggestion. He has also shown that organic hemianesthesia of capsular origin may last longer than the lesion, and be preserved by autosuggestion. He reports 2 cases to illustrate his former statements. The cases show that crossed amblyopia, with narrowing of the visual fields, so frequently demonstrated, is not always an hysterical phenomenon, but may be due to a lesion of the sensory decussation. This amblyopia is not a direct symptom of a lesion of the optic paths in their intracerebral course, but it is due to a lesion of general sensibility. Ocular anesthesia, due to a lesion of the sensory root of the trifacial nerve, which is in the internal capsule, may produce amblyopia, either by nutritive disorders of the retina of vasomotor origin, or by insufficient irrigation of the retina due to arterial spasm. [J. M. S.]

3.—Censier reports a case of phlebitis of the external saphenous vein following traumatism, applied to the region of the hip. [J. M. S.]

4.—Will be abstracted when finished.

5.—Hartenberg reports 3 cases of emotive blushing which appeared to be pathological. [J. M. S.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8

VOL. X. NO. 22

NOVEMBER 29, 1902

\$5.00 PER ANNUM

The Present Status of Brain-Surgery.—For some years there was such a reaction against the enthusiasm for brain-surgery that elective operations on the cranial contents seemed to have become almost unpopular. That this reaction went too far; that, in other words, it was injudicious and even unscientific, is now rather self-evident. There remains, and there always will remain, a distinct field for elective brain-surgery. It would, indeed, be most unfortunate if this special field of surgery, in which have been won some of the most signal triumphs of experimental physiology as well as of operative skill, were to be abandoned.

We have pleasure in presenting in this number a very interesting paper by Dr. Charles K. Mills on some of the newer aspects of brain-surgery. Dr. Mills has always identified himself with the practical application of the work of Ferrier and the other localizationists, to the surgery of the brain. It is highly appropriate that he should seek to revive and sustain an interest in this whole subject.

Dr. Mills' paper, contrary to what might be expected of a paper by a neurologist, has to do largely with the purely surgical aspects of this subject. In devoting himself so particularly to surgical topics, we believe the author has been wise. These cases of brain tumor present themselves in a rather different way to the neurologist than to the surgeon, and the surgical judgment of the neurologist, gained by much and careful observation, is often of great value. The points emphasized especially by Dr. Mills are the needs for exact localization, both cerebral and cranial (for these two problems are entirely distinct), and for a more rapid and more effective technique.

Dr. Mills advocates the osteoplastic flap, instead of the older method by the trephine and the rongeur. He is especially critical of theallet and thelist—a method by which much harm may be done to the brain by reason of the concussion. The osteoplastic flap admits of a more perfect closure of the wound and, as made by the Stellwagen instrument, admits of a quick procedure. These two points are greatly in favor of this method and this

instrument. We refer the reader to the author's paper.

The precise delimitation of the field of operation on the cranium is a subject about which not a few surgeons are sometimes at a lamentable loss, and it is one, moreover, in which some (not all) of them look for assistance from the neurologist. Dr. Mills has fully emphasized and illustrated this subject.

The Report of the Surgeon-General of the United States Navy.—The occurrence of the war between Spain and the United States did much to create in the minds of recent graduates in medicine a renewed interest in the Army and Navy medical service. We believe, however, that the government service has not the attraction now for a medical man which it once had, and this we think is due to the fact that it offers so little opportunity for professional advancement and for perfection in any one branch of medicine. It is, of course, true that certain men will attain distinction for professional work wherever they be and whatsoever their surroundings, but the average man needs both a stimulus and an opportunity.

The report of the Surgeon-General of the Navy shows a realization of this fact, and in the report will be found a remedy in the form of a number of suggestions to Congress. There is the most urgent need of an increase in the number of medical officers in the navy. It is stated that hospitals with twice as many patients as in 1897 now have fewer surgeons to care for them, and that much the same disproportion is noticed on the vessels and at the shore stations. The hope of young medical men entering the navy for future advancement and distinction has been so little realized that the resignations for the year 1901 numbered five, nearly one-quarter of the number taken into the service in the same period. The reasons for these resignations are traced to dissatisfaction with the opportunities for purely professional work and advancement offered by a service overworked and undermanned.

It is to be hoped that Congress will enact a law

increasing to the desired strength the medical corps of the navy, since only in this way can the medical officers have an opportunity of keeping up with the advancement made in their profession and of doing some individual work. Much is demanded of a man in this service, and it is the duty of the Government to provide every means and opportunity for study and for professional advancement. At present, the service is so overcrowded that it is impossible to allow the medical officers an opportunity of pursuing the proper and promised amount of work on land after a sea service of more or less length.

Ambulance and hospital ships are strongly recommended. A plea is also made for women nurses in naval hospitals. Women nurses have proved so satisfactory in the army hospitals that it seems but proper and right that the navy should also be allowed the benefit of experienced women nurses.

In the report is embodied an account of the various operations which have been done and which show most excellent results. The body of the report is made up of accounts of the condition of the various ships and naval hospitals by the medical officer in charge. The Surgeon-General has made a good report, asking only what is reasonable and right, and we hope that Congress will come to his support.

The University of Pennsylvania Medical Bulletin.

—It is not sufficient nowadays for a medical college to trust merely to the fame of its faculty, or to the satisfaction of its students; there must be some visible and tangible evidence that actual progressive work is being accomplished in its laboratories and hospital wards, if it would retain its position in the front rank of such institutions. For this purpose it has been customary to issue from time to time various forms of publications which contain articles, monographs, etc., by members of the teaching force. In a few cases regular medical journals are issued, and among the very best of these may be reckoned the *University of Pennsylvania Medical Bulletin*.

Since the early days of this publication, under the name of *University Medical Magazine*, it has passed through many transitions until now it is an imposing-looking quarto of considerable bulk. The latest issue, that for November of the current year, will probably be considered one of the most notable medical magazines perhaps ever published. It comprises a series of contributions from the Pathological Department of the University of Pennsylvania, and their character and variety prove two things: First, that very strenuous and varied ac-

tivity exists in that department to-day, and, second, that it is in the forefront of experimental research, because some of the subjects which have been undertaken are a little in advance of anything of a like nature done elsewhere. It is difficult to say which is the most important article.

The Pathology of Lymphotoxic and Myelotoxic Intoxication, by Professor Flexner, is an exceedingly interesting contribution to the subjects of cytotoxins, and no series of investigations upon this subject has been carried out with anything like the thoroughness or carefulness that has distinguished this one. Vaccination and Serum Therapy Against the Bacillus of Dysentery, by Dr. Gay, is fraught with the possibility of the conquest of another disease condition, and it is by such thorough-going experimental studies that such a conquest is rendered possible. The various hemolysins, agglutinins, precipitins and coagulins in the blood of cold-blooded animals, either existing normally or produced by immunization, have not hitherto been studied excepting in the most desultory manner. Neguchi has subjected the blood of a considerable number of the cold-blooded vertebrates to a careful examination from this point of view, and has accumulated some most interesting information, which represents a distinct addition to our knowledge of the subject. He has further made some interesting investigations upon the interaction of bloodserum, milk, cholesterin, etc., upon agaricin and tetinolyisin, and in association with Professor Flexner presents a further communication upon the constitution of snake venom, paying particular attention in this, as in other papers, to that field which may be said to be the newest in pathology: the ferment-like bodies in the blood and organic poisons.

The same line of research practically, though from a considerably different standpoint, is presented by Longcope, who has studied the bacteriolytic serum complements in disease. Among the interesting papers, that is to say, those presenting unusual pathological subjects, are: The Leptothrix Infection in Animals, by Dr. Pearce, and a brief communication upon Thrombi Composed of Agglutinated Red Bloodcorpuscles, by Professor Flexner, from which he concludes that the agglutination of red bloodcorpuscles intravenum is not uncommon, and is probably due to poisons that destroy the corpuscles. We congratulate the University, and particularly the pathological department, upon this series of articles.

Measles on the Arctic Coast.—A recent Associated Press despatch from San Francisco informs us

that news has been brought by a whaling steamer of a severe and fatal outbreak of measles among the natives of the Arctic coast. At least twenty-five per cent. of the natives of Hershel Island and neighboring districts have died during the present epidemic, and there seems to be nothing to check this great death-rate. The spread of civilization northward has caused the appearance, among the natives, of the various maladies to which the white man is subject, and the mortality-rate has proven terrific among these people to whom the diseases were previously unknown. This recalls to our mind the sentence which G. A. Reid in his work on Alcoholism has done well to italicize. He says, "it is most significant that every race is resistant to every deadly disease strictly in proportion to its past experience of it." Reid calls attention to the fact that West African negroes are much more resistant to malaria than Englishmen, who, on the other hand, are comparatively immune to tuberculosis when compared to Australian blacks.

The history of medicine has given ample evidence that the appearance of a disease among people previously unaccustomed to it will prove highly destructive to its new victims. Dr. William Russell has called to mind that through the agency of vaccination and hereditary immunity the average European has an excellent chance to recover from smallpox, while the Esquimaux will perish even from vaccinia. Through many generations a natural immunity has been acquired against prevalent diseases, so that those maladies which at one time had a high death-rate have come to be comparatively mild. This is merely the doctrine of the survival of the fittest. Unfortunately for the Esquimaux there is small comfort for him in this fact, and everything in the way of medical assistance which can be sent should be sent to these afflicted people. The natives know nothing of the methods of caring for themselves in this strange epidemic, hence their susceptibility to disease in general is said to be greatly increased by their overindulgence in the white man's whiskey, another of the benefits of our civilization which travelers in these districts have introduced.

The Tuberculosis of Cattle is a subject of more than ordinary importance for several reasons, among which are the following: (1) This disease is rather common among cattle, upon which we depend for a large and indispensable part of our food-supply; (2) the study of natural and experimental tuberculosis among animals helps to illuminate the subject of the tuberculosis of man; (3) the economic losses from the tuberculosis of cattle are so great as to constitute a heavy burden upon herd owners.

For six years the State Live Stock Sanitary Board has been engaged not only in the practical work of repressing this disease on farms, but it has also sustained a laboratory and some important research work for the purpose of testing and improving its methods. The several papers on tuberculosis by Dr. Ravenel have issued from this laboratory. We publish in the *Journal* today a paper from the same laboratory by Drs. Pearson and Gilliland on the immunization of cattle against tuberculosis. It appears that these experimenters have succeeded, by a process somewhat similar to anthrax vaccination, in greatly increasing the resistance of cattle to tuberculosis and, perhaps, in conferring a serviceable degree of immunity. It is their purpose to continue these experiments on a larger scale. It is gratifying to know that the Governor and Secretary of Agriculture have seen the immense possibilities of this work and are giving it their cordial support.

The Magnetic Healers.—We have, in common with most persons, such a high respect for the Supreme Court of the United States that we do not engage lightly in a criticism of that august tribunal. We cannot, however, reconcile its recent decision in the case of the "Magnetic Healers" with any principle of justice or common sense.

According to the *Philadelphia Press* one of this gentry—

"agreed to heal those who answered the circular sent through the mails by "absent treatment," thinking about them fifteen minutes a day at \$5 a case. He was taking in \$2500 a day and was agreeing, therefore, to give 125 hours of thought daily. This was one fraud. The other fraud, on which the Post Office Department acted, was that magnetic healing itself is a sham."

According to the Supreme Court this practice is all right and proper, and the use of the U. S. mails by this man is legal. Mr. Justice Peckham, who delivered the opinion of the court (from which two of the Justices dissented), said:

"There are many believers in the truth of the claims set forth by complainants (the magnetic healers), and it is not possible to determine as a fact that these claims are so far unfounded as to justify a determination that those who maintain them and practise upon that basis obtain their money by false pretenses."

That a man who promises to give 125 hours of work a day is not a fraud, has now been decided by the Supreme Court of the United States, and must be accepted as a principle of law. By the same principle, a coal miner or any other laborer may do the same thing (if his union will let him) and draw wages accordingly. The Supreme Court of the United States will doubtless support him. This throws new light on some of the labor questions of the day.

That Mr. Justice Peckham believes that the

claims of the magnetic healers are not founded on false pretense, would be of not much consequence as his individual opinion, but as an authoritative statement by the Supreme Court of the United States it confirms our belief that the law as an exact science is on the same level as "Magnetic Healing."

Dr. Walter Reed.—The death of Dr. Reed, from appendicitis, at Washington, D. C., on the 23d inst., is greatly to be deplored. It is all the more to be regretted in view of the fact that it occurred from a disease which modern science has done so much to deprive of its former great mortality. The members of the medical profession will deeply regret that this accomplished army surgeon, who has done much to advance the cause of scientific medicine, was destined to succumb to a malady which in so many cases is well within the control of scientific treatment. Dr. Reed's death, however, was doubtless inevitable, as he enjoyed all the advantages of skilled attendance.

Dr. Walter Reed was a good representative of that constantly enlarging group, both in the army and navy, who win distinction for these services by their valuable scientific work. His contributions to the study of the causation of yellow fever will alone assure for his memory a wide and permanent recognition.

The Temple of Aesculapius.—The *Lancet* announces (on what authority it does not state) that this long-sought-for shrine has been discovered at last. The fact is of great archeological interest, and of equally great interest to the medical world.

It seems that Dr. Rudolph Herzog is the lucky man, and that the discovery was made under an ancient Byzantine church in the island of Cos, in the Aegean Sea—an island which, as is well known, was the seat of the cult of Aesculapius and the birthplace of Hippocrates. The discovery seems to be authentic. The columns of the temple have been found, and an inscription in Greek to the effect that "sundry elders from different states have decided by vote to carry on the holy asylum of Aesculapius." A statue of Hygeia also has been found, and an image of a serpent, the well-known symbol of the healing art. Excavations are being made and further discoveries of interest are anticipated.

To Abolish Coroners.—They are really in earnest in New York about abolishing the office of coroner. As will be seen from a clipping, published in another column, there has been some concerted action in the matter by an influential medical body. We imagine the most active opposition will come from

the politicians, for these gentlemen naturally regard the office of coroner as one to be filled by their supporters.

In New York the plan is to transfer the more purely scientific functions of the office to the Board of Health, and the judicial functions to a magistrate. There is something to be said in favor of this plan. A well-constituted Board of Health could discharge admirably many of the duties of the coroner, and could do it without making its members ridiculous. A Board of Health is a scientific body. It has to do constantly with questions affecting life and death. It has prestige and equipment in its favor. The ordinary coroner has neither.

The office of coroner should either be abolished, or it should be occupied by a medical man of approved attainment. The functions of the office are largely of a medical character. The ordinary occupant of the office is unfitted for the discharge of such functions.

Post-Prandial Oratory.—At the banquet given in Philadelphia recently in honor of Dr. William W. Keen and Dr. Horatio C. Wood, the generally high character of the after-dinner speaking was favorably commented upon. There was some pleasantries, mingled with some pathos, and in the main the speeches were rational, intelligent, in a moderate vein, and thoroughly enjoyable. There was also a commendable absence of any overt attempt to be funny for the mere sake of raising a laugh. We think this is noteworthy. In our observation medical men, as a rule, are not great wits, but they are often good talkers, and they are at their best when they talk sensibly and do not strive overmuch to set the table in a roar.

Of all the products of our civilization we think the professional diner-out and post-prandial orator is often the most melancholy. At banquets of medical men the sin of anecdotage is sometimes committed by speakers who probably regret it the next morning. To an audience with full stomachs and in a halo of cigar smoke, a rational and interesting speech may be just as acceptable as one that constantly makes an overdraught on the faculty of laughter.

Current Comment.

SELFISH INVALIDS.

In all my experience as a physician I have not seen more than a dozen men or women who have been improved morally by long-continued suffering. Acute illness and illness which brings the patient close to death often has a beneficial effect upon the disposition, but I cannot agree with the assertion which we frequently hear made in the

pulpit that suffering is usually the means of refining. I have seen a few isolated cases in which this was so, but it is not the rule by any means. The chronic invalid is almost invariably selfish and peevish, and it is a hard task to find a nurse who can stand the strain of such a service.

—Dr. S. Weir Mitchell in a Recent Lecture.

EXPERT TESTIMONY.

Expert testimony should be governed and restrained by the State; it has become a public scandal that highly paid experts in handwriting, or chemistry or medicine are invariably to be found in any required number to testify in any direct contradiction to one another on scientific points; it has become proverbial that juries usually ignore expert evidence, which ought to be in fact the surest and most valuable of all classes of testimony; it may be necessary for the courts (not the prosecuting attorneys) to engage, pay and superintend the work of specialists when such evidence is necessary.

—The Outlook.

TO ABOLISH CORONERS.

At a meeting of the New York State Medical Association of New York county last week in the New York Academy of Medicine it was voted to appoint a committee to investigate and report upon the advisability of abolishing the Board of Coroners in this city. The committee is to confer with the Committee on Legislation of the New York State Association and other committees representing medical societies so that the general opinion of the medical profession may be reached. The medical associations have interested themselves in the abolition of the office of coroner for several years. The office is now no longer a constitutional one and can be abolished by the legislature. The doctors favor the splitting up of the coroner's power between the Health Board, in so far as it relates to pathological matters, and to the magistrates in other affairs.

—The Medical News.

KEEP WOMEN OUT FOR THEIR OWN SAKES.

Professor Zimmer, of Berlin, has been investigating the causes of insanity among women, and has come to the conclusion that if women are admitted into competition with men the inevitable result will be a tremendous increase of insanity among the women. He finds that the percentage of women teachers who become insane is almost double that of the men teachers. Inquiries were also made about women employed as telegraph, sales clerks, and in the telephone service, and, furthermore, with regard to women engaged in the Swiss watchmaking trade. These inquiries showed that in the occupations mentioned a far larger proportion of women than men succumb to mental disorders.

—The Medical Times.

Correspondence.

THE BIBLIOGRAPHY OF CARDICENTESIS.

By A. ROBIN, M. D., of Newark, Del.

To the Editor of the Philadelphia Medical Journal:

As bearing on the bibliography of cardicentesis it may be interesting to note the following data: The operation of cardicentesis seems to have been first introduced as a legitimate surgical procedure by Dr. Westbrook in 1882 (*Medical Record*, December 23.) In 1883 Cheesman (*Medical Record*, January 20) contributed a brief paper, commenting on Dr. Westbrook's case and expressing himself against the operation. Objection to the operation was also raised by the *Medical News* in its issue of February 3, 1883. To

these objections Dr. Leuf replied in a paper contributed to the *American Journal of the Medical Sciences*, January, 1885, claiming that the operation is safe and should be performed in suitable cases. The *Journal of the American Medical Association*, in its issue of April, 1885, also expresses itself in favor of the operation. In a paper which appeared in the *Medical Record*, November 14, 1885, Dr. Cheesman repeats his objections to the operation on the ground that it is dangerous and may prove fatal. He cites a case observed in the Bellevue Hospital, in which an accidental cardicentesis was performed in an effort to aspirate the pericardium, and the patient died 6 hours later from slow hemorrhage. He also objects to naming the procedure "Westbrook's operation," as done by Leuf, on the ground that cardicentesis was performed by Roger in 1872, and Hulke, sometime later. Dana's cases, mentioned by Leuf, occurred, one in 1877 and the other in 1878. In reply to Cheesman's criticism, Dr. Leuf (*Medical Record*, December 19, 1885,) disposes of some of the former's objections and reasserts the advisability and safety of the operation, claiming that "cardicentesis properly performed is simpler and less disheartening to the patient than the ordinary phlebotomy." He also argues in favor of Dr. Westbrook's priority in formally introducing the operation which has been hitherto performed accidentally. In an editorial in the *Medical Record*, October 31, 1885, Dacre's case (reported in the *Medico-Chirurgical Journal*, 1885) is commented upon and the following statement made: "Cardicentesis is a novel procedure, and one of which little is yet known. So far, the operation has not established itself in any wise as one which will help when all other resources are exhausted. It appears, in fact, probable that phlebotomy is better and as efficient. Still, on the other hand, experience so far shows that cardicentesis is not dangerous." In 1887 Bruhl (*Le Progrès Médical*, Nos. 52-53) presents the history of the operation, with reports of cases, concluding that it is practicable and, in most cases, not dangerous. Commenting on this paper, the *Medical Record*, January 28, 1888, says that "M. Rendu, however, is cited as stating that 'a wound of the heart is so great a responsibility to assume that one should avoid it at any price.'" Such a caution, continues the journal, may be wisely kept in mind, though numerous facts attest the harmlessness of puncturing the heart with needles.

Reviews.

Syphilis: A Symposium. Special contributions by L. Duncan Bulkley, A. M., M. D., Follen Cabot, Jr., M. D., Louis A. Duhring, M. D., Professor Fournier, M. D., Eugene Fuller, M. D., E. B. Gleason, M. D., William S. Gottheil, M. D., Robert H. Greene, M. D., Norman B. Gwyn, M. D., Orville Horwitz, M. D., Edward L. Keyes, M. D., D. J. McCarthy, M. D., Thomas G. Morton, M. D., Boardman Reed, M. D., A. Robin, M. D., and J. D. Thomas, M. D. E. B. Treat & Company, New York, 1902.

The monograph under consideration is a collection of articles published in one of the special numbers of the *International Medical Magazine*. In the introduction, the publishers describe the book as having been contributed to by distinguished authorities upon syphilis, who have drawn upon their special knowledge and large experience in this branch of medicine. The first article, by Robin, discusses the etiology of syphilis. He makes short references to the various organisms brought forward in recent times as the specific cause of this disease, but evidently considers that none of them is entitled to serious consideration as the true cause. He suggests that the disease may be spread by the bites of suctorial insects. Fournier contributes an article on the clinical characteristics of syphilitic chancre.

which was translated, whether with or without the author's permission is not said, from the *Journal des Sciences Médicales de Lille*. Gottheil's papers treat of the unrecognized chancre and of the curability of syphilis. The author says that the disease exists or has existed somewhere in the blood strain of almost every family; to which may be attributed the increasing mildness of the general phenomena of the malady; a statement that would bring forth an indignant denial from many families. Gwyn's contribution treats of syphilis of the lungs and pleura; McCarthy's, of syphilis of the nervous system; Bulkley's, of unrecognized syphilis in general practice, in which he describes the general characteristics of syphilitic gastric ulcer and chronic syphilitic gastritis. Thomas tells how to diagnose syphilis in a wet-nurse; Cabot discusses the diagnosis and management of syphilis; Gleason describes syphilis of the nose and throat; Fuller discusses the management of syphilis; Greene contributes an article on the treatment of syphilis, and the other contributors answer 6 questions. The papers on the treatment of the disease are the least satisfactory reading; the others are good, though necessarily short. [J. M. S.]

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine; Issued Monthly, Under the Editorial Charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, Vol. IX. Physiology, Pathology, Bacteriology, Anatomy. Pathology, Edited by W. A. Evans, M. S., M. D., Professor of Pathology, College of Physicians and Surgeons, Chicago. Bacteriology, Edited by Adolph Gehrman, M. D., Professor of Bacteriology, College of Physicians and Surgeons, Chicago, August, 1902. The Year Book Publishers, 40 Dearborn street. Price, \$1.25.

After reading this sumptuous heading one is quite disappointed at the small volume of some 203 pages representing the "year's progress" in 4 of the most important branches of the medical sciences. It is all well and good to aim at brevity and feed that dyspeptic infant—the general practitioner—on predigested food, put up in an attractive and condensed form, but to collect a number of abstracts and call it a year book, or a part thereof, is hardly fair. With the exception of the very well written section on physiology, the other sections are nothing but abstracts, good, bad and indifferent, loosely stitched together under some sort of a classification. The only way to achieve the end sought by the publishers and editors would be to give critical reviews of the progress in the respective subjects, utilizing only so much of the recent bibliography as is necessary, in the judgment of the reviewer, for a lucid representation of the subject. The year book should stand between the journal and the text-book, filling in the gap between them. The world (we mean the journalistic world) is already full of abstracts, and who wants more? We have no doubt that the distinguished editors are fully capable of presenting such critical reviews as would give the busy practitioner a good insight into the recent progress of the medical sciences and stimulate his desire for a more intimate acquaintance with the facts elucidated. [A. R.]

Bullettino Della Reale Accademia Medica Di Roma. Compiato Dai Consiglieri Accademici Delegati Per La Stampa Prof. G. Sergi e Prof. L. Concetti. Anno XXVII Fascicoli IV, V, VI, VII e VIII. Anno XXVIII, Fascicoli I, II e III. (3 Volumes). Roma Tipografia Fratelli Centenari Via degli Avignonesi, 30-31, 1901.

The Bulletin of the Royal Academy of Medicine of Rome for the years 1900-1901 and 1901-1902 is now before us. These volumes have been edited by Prof. G. Sergi and Prof. L. Concetti. Among the noteworthy contributions we might mention that by Dr. G. Gorini: A Study of Vac-

cinia; that of Dr. F. Schupfer, on Some of the Nervous Manifestations of Malaria. R. Roselli has contributed an interesting report of a retrobulbar melanoma as well as a case of sarcoma of the lower lid. Prof. E. Postemski reports a series of 219 cases of spinal cocainization. Space does not permit us to comment upon these papers nor to mention many more of interest. We cannot close without calling attention to the contribution of Prof. R. Alexandri: Experimental Researches on the Cause of Pancreatic Fat Necrosis. This study is published merely as a preliminary note. There are a number of excellent plates, many of them colored, illustrating the various papers. [T. L. C.]

Leitfaden der Elektrodiagnostik und Elektrotherapie für Praktiker und Studierende, von Dr. Toby Cohn, Nervenarzt in Berlin. Mit 6 Tafeln und 39 Abbildungen im Text. Zweite vermehrte und verbesserte Auflage. Berlin, 1902. Verlag von S. Karger, Karlstrasse 15. Preis M. 5.

The second edition of Dr. Toby Cohn's guide to electrodiagnosis and electrotherapy has been considerably enlarged and in part rewritten; the work takes up briefly a description of electrophysics, presents a comprehensive study of electric reactions as obtained in the human body. It further discusses the conditions in which electrotherapy is indicated and the technique of its application. The work concludes with a brief but satisfactory description of the various forms of electric apparatus. A feature of the book consists in the clever arrangement of the several colored plates. The various parts of the body, deprived of the skin and the tissue overlying the muscular structure, are shown, while over this is the tracing of the same part, appearing as in life. The muscles in the underlying plate are carefully marked by name and their nerve points indicated. In the thin paper tracing over the place the nerve points are shown in red color. We believe that this scheme has practical value in localizing the nerve points. [T. L. C.]

Medical News Visiting List for 1903. Lea Brothers, Philadelphia.

The Medical News Visiting List for 1903 shows the same valuable features that its predecessors possess. There is a very complete table of doses, of poisons and their antidotes, and of appropriate remedies for almost all common diseases. No doubt it will be welcomed by the physicians who are in the habit of using it. [J. L. S.]

Detachment of the Retina.—Thilliez and Bonte (*Journal des Sciences Médicales de Lille*, September 13, 1902) report a case of detachment of the retina treated by subconjunctival injection of a saturated solution of sodium chloride, with excellent recovery. In giving the injections, they used one cc. of the concentrated sodium chloride solution, to which 3 drops of acoine had been added to prevent pain, repeated every few days until vision returned, or at least until the arrest of the increase in visual activity. The patient must remain on his back throughout the treatment, and for some days after cicatrization. The details of the technique of the treatment are given in full. [M. O.]

Unilateral Absence of Pectoralis Major and Minor Muscles.—Kopfstein (*Wiener klinische Rundschau*, August 17, 1902) reports a rare case of congenital absence of both pectoral muscles of the left side, in a girl of 10. In place of them was a long, triangular reduplication of skin, extending from the first to the fourth ribs, to the internal bicipital groove, and from the shoulder to the internal condyle of the humerus. Both layers of skin were movable. As this limited the motion of the arm, Kopfstein performed a plastic operation, with successful result. Since the wound healed, motion in the arm has been normal. [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Pediatric Society.—At the next meeting, to be held December 9 at the College of Physicians, Philadelphia, Dr. Abraham Jacobi, of New York, will deliver an address. Later in the evening a reception will be given to Dr. Jacobi at the Hotel Stenton.

Children's Hospital, Philadelphia.—At the annual donation day, November 19, \$1100 were received from friends of the institution. While some of the subscriptions were \$100, the great majority of the donations were smaller amounts.

Society Meetings Next Week.—The following societies will meet next week, at the College of Physicians, Philadelphia, at 8.15 P. M.: Monday evening, December 1, Academy of Surgery; Tuesday evening, December 2, Mütter Lecture on Poisoned Wounds by Implements of Warfare, by Major L. A. LaGarde; Wednesday evening, December 3, College of Physicians, and Thursday evening, December 4, Obstetrical Society.

Lancaster General Hospital.—The corner-stone of the new building was laid November 23. The building will be 80 by 90 feet, of Indiana limestone, in Colonial style, 3 stories high. It will contain rooms for patients, operating rooms, wards, pharmacy, sun parlor, offices, nurses' quarters, dining rooms, kitchen and X-ray department.

Smallpox in Pennsylvania.—There are 87 points in the State where smallpox now exists, an increase of 50% for every month since August. The State Board of Health has asked for an appropriation of \$50,000 to form an emergency fund for the treatment of epidemics. Most of the cases are in the Western and Southern counties of Pennsylvania. Cases due to cats having carried the contagion have been noted in Huntingdon.

Bryn Mawr Hospital.—Plans are being prepared for improvements, at the Bryn Mawr Hospital, which nearly 6 months ago was doubled in size by the erection of a children's ward and private rooms. It is now proposed to build a new laundry and an addition to the servants' apartments.

Infectious Diseases in Philadelphia.—During the week ending November 22, all infectious diseases except scarlet fever showed a decrease. There were 128 cases of typhoid fever reported, 83 of scarlet fever, 50 of diphtheria and one of smallpox. The last case was found in West Philadelphia, in a man who had been sent from Wilmington, ill with the disease.

Chester County Hospital.—Injunction proceedings have been commenced, to prevent the erection of a contagious building or ward on the grounds of the Chester County Hospital, West Chester.

Dr. Lorenz in Philadelphia.—A telegram has been received from Dr. Adolf Lorenz, of Vienna, stating that he will arrive in Philadelphia about December 1. He will give at one clinic, at the Jefferson Hospital, before medical men who will come from almost every city along the Atlantic coast from Connecticut to North Carolina, and before the 200 students of the senior class. The exact date of this clinic has not yet been announced.

Infectious Diseases in Schuylkill County.—Several cases of smallpox have appeared in Schuylkill Haven, where there have also recently been deaths from diphtheria and typhoid. Cases of typhoid fever are reported at the Pottsville Hospital, and there are also several cases of diphtheria in Pottsville.

NEW YORK AND NEW JERSEY.

Brooklyn's Public Schools.—Since the opening of the school term 1611 children have been excluded because of contagious eye disease and 3205 because of parasitic disease of the scalp. These are the results of the medical examinations of the pupils of both the public and parochial schools, undertaken this year for the first time. During last week alone, 676 pupils were excluded from the schools on account of disease. There has been a steady increase since

October 1 in the cases of contagious eye diseases and parasitic diseases of the scalp.

French Hospital, New York City.—M. Cambon, the French Ambassador to the United States, laid the corner-stone of the new French Hospital in West Thirty-fourth street, November 18. The hospital is being erected by the French Benevolent Society. Speeches were made by the president of that society, the French Ambassador and the new French Consul-General to New York. A dinner was given in the evening.

Smallpox on La Gascogne.—The French steamship *La Gascogne*, which reached New York November 23, from Havre, was detained in quarantine a day, owing to the occurrence of a case of smallpox among the steerage passengers. The disease developed when the steamer was one day out, in a boy of 17, who was at once isolated. The steerage passengers were transferred to Hoffman's Island.

Cold in Consumption.—Dr. M. A. Veeder, in a paper on the Open Air Treatment of Consumption, read at the New York State Conference of Charities and Corrections, at Albany, November 19, spoke of the good effects of cold air upon tuberculosis. Fresh, cool air breathed, destroys tubercle bacilli in the lungs and increases the resisting powers of the body.

Smallpox in New Jersey.—Several more cases of smallpox have occurred in Camden during the past week, and one public school was closed on this account. Other cases are reported in South Vineland, and in Woodbury.

New York Juvenile Asylum.—Work has just been begun upon 15 cottages to be erected at Echo Hills, Westchester county, N. Y., for boys, on the large estate to which the asylum is to move. Each of the cottages, of which there are to be 40 eventually, will accommodate 20 boys, and there will be 20 cottages for 15 girls, each to cost \$15,000. Altogether there will be 75 buildings on the estate. There are at present over 900 children in the institution.

Too Many Autopsies.—One of the coroner's physicians in New York states that the young physicians and students in Bellevue Hospital are too anxious to have autopsies performed. He believes that many cases are sent to him for autopsy without good reason. He contends that only those cases which have signs suspicious of foul play should be sent to the coroner's physician for autopsy.

The Extermination of Mosquitoes.—The committee for exterminating mosquitoes in South Orange, N. J., report that by the use of oil alone the mosquitoes were reduced at least 50%. They have been further reduced by adding drainage to the oil work. By these 2 means together the supply of mosquitoes has been cut down fully 75%.

NEW ENGLAND.

Smallpox in New England.—Smallpox still exists in Webster, Mass., 41 cases having been reported up to November 17. There are also cases at South Weymouth, Dudley and Worcester, Mass.; Claremont and Nashua, N. H., and at Eustis and Waterville, Me. A number of cases are also reported among the lumber camps in Maine.

Harvard Medical School.—Mr. James Stillman, of New York, has given \$100,000 for the endowment of a professorship in comparative anatomy.

Pneumonia at Newport, R. I.—A medical board is now investigating the cause of the 40 cases of pneumonia which have occurred among the 1200 Naval apprentices at the Naval Training Station. There have been 4 deaths in the past month from pneumonia. Among the causes suggested was walking over the concrete floors of the barracks without shoes. It was also suggested that the condition may have been caused by the material used in their underwear.

WESTERN STATES.

Lorenz Hospital, Los Angeles, Cal.—It has been announced that a resident of Los Angeles will supply funds for establishing a hospital, to be known as the Lorenz School and Hospital for Deformed Boys and Girls, the chief use of which will be the treatment of deformities by the Lorenz method. All treatment will be given without charge.

Akron City Hospital, Akron, Ohio.—The corner-stone of this new hospital, which will cost \$100,000, was laid Novem-

ber 23, by Dr. W. A. Belt, of Kenton, Ohio. The Hospital is the gift of O. C. Barber and G. T. Perkins.

Northwestern University.—Students of the College Department, who have not been vaccinated recently, have been excluded from their classes until they have complied with the regulations making revaccination compulsory.

Dr. Lorenz in St. Louis.—Dr. Lorenz held several clinics in the hospitals of St. Louis last week before returning to Chicago, where he received the degree of LL. D. from the Northwestern University, November 28.

Diphtheria Epidemic at Wausau, Wis.—Diphtheria has appeared in this city, several children being seriously ill. One adult died from the disease November 17.

Southern Surgical and Gynecological Association.—At the annual meeting held at Cincinnati, Ohio, November 11 to 13, Dr. J. W. Bovée, of Washington, D. C., was elected president and Drs. B. Saunders, of Fort Worth, Tex., and C. Tompkins, of Richmond, Va., were elected vice-presidents. Dr. W. B. Haggard, of Nashville, Tenn., was re-elected secretary and treasurer.

A Coming Meeting.—The Indian Territory Medical Association will meet December 2 and 3, at Muskego, I. T. Dr. R. A. Crahill, of McAlester, I. T., is secretary of the association.

SOUTHERN STATES.

Physiological Effects of Meat Preservatives.—Experiments were begun this week by the Chemical Bureau of the Agricultural Department, Washington, on 12 young men, upon whom physiological effects of meat preserved by borax and other chemicals are being tested.

Medical and Surgical Faculty of Maryland.—At the semi-annual meeting, held at Laurel, November 18, Dr. G. J. Preston, in a paper on Almshouse Cure of the Insane in Maryland, advocated State care of the insane as the only remedy. Dr. W. S. Thayer appealed for co-operation in the work of collecting information concerning tuberculosis patients in Maryland. The following papers were read: The Causes and Conditions Underlying Dipsomaniacal Attacks by Dr. W. L. Howard; Diagnosis and Prognosis of Mental Depression by Dr. S. Paton; Prognosis of Chronic Otorrhea by Dr. H. O. Reik; Rheumatism by Dr. J. E. Gichner; Rupture of the Uterus by Dr. R. Winslow; Methods for Increasing or Diminishing Body Weight by Dr. J. C. Hemmeter; Physiological Chemistry by Dr. G. C. Hill; Uterine Myoma During Pregnancy by Dr. J. H. Branham; Wounds of the Chest by Dr. R. I. Trimble; Angina Ludovici by Dr. E. D. Sanger; Infantile Hemiplegia by Dr. R. Reuling; Cancer of the Uterus by Dr. T. S. Cullen, and Paracentesis Abdominis by Dr. E. J. Dirickson. Dr. H. C. Earle was president and Dr. J. W. Lord secretary. The address of welcome was delivered by Dr. W. E. Taylor, of Laurel.

Smallpox in Virginia.—Cases of smallpox are now reported from 11 counties in the State. A rigid quarantine against the disease has been established at Strasburg, Shenandoah county.

Coming Meetings.—The American Public Health Association will meet at New Orleans, La., December 8 to 12. Dr. C. O. Probst, Columbus, O., is the secretary.—The Seaboard Medical Association will meet December 15, at Wilson, N. C. Dr. J. R. Bagby, of Newport News, Va., is the secretary.

Death of Dr. Reed.—Dr. Walter Reed, Surgeon-Major, U. S. A., died at the General Hospital, Washington Barracks, Washington, D. C., November 23, from appendicitis, aged 51 years. An operation was performed November 17. Dr. Reed was a graduate of the Medical Department of the University of Virginia and Bellevue Hospital Medical College, New York City. He was appointed assistant surgeon in the Army in 1875. In 1893 he was appointed curator of the Army Medical Museum, Washington. During the Spanish-American War he was a member of the board which investigated typhoid fever in the Army. He was afterward on duty in Havana, where he made a particular study of yellow fever. After many experiments, during which the life of one member of the board was lost in 1901, the fact was announced as proved that yellow fever is conveyed by a certain variety of mosquito, being introduced into the blood of non-immunes by the bite of this species of mosquito. Since

Dr. Reed's discovery, the mosquitoes have been destroyed and yellow fever has not re-appeared in Havana. Dr. Reed received an honorary degree from Harvard last June.

CANADA.

(From our Special Correspondent.)

Toronto's Vital Statistics.—For 1902, up to November 1, the total number of births has been 4095, as compared with 3579 for the corresponding 10 months in 1901. The deaths numbered 2685, as compared with 2882 in 1901. The large increase in the birth-rate is probably due to the more stringent requirements which have now been made compulsory by the registrar.

Municipal Consumption Sanatorium.—The Anti-Consumption League drew up a petition, signed by a great number of persons, asking for a municipal grant of \$50,000, promising to raise an equal sum by private subscription. The medical health officer at Toronto, however, pointed out to the Board of Health that Toronto is now perfectly able to treat its own consumptives properly. No tuberculosis patients are refused admission to any hospital in Toronto, and since last June the Gravenhurst Free Hospital for Consumption has received 27 incipient cases from Toronto on orders from the city.

Tuberculosis Cases Reported.—The Board of Health of Hamilton, Ontario, have decided that all cases of tuberculosis coming under the attention of the city's physicians must be reported to the Medical Officer of Health.

Montreal Maternity Hospital.—At the fiftieth annual meeting, held recently, it was announced that \$1000 had been given by Mrs. Ross toward the building fund of a new and modern hospital, making this fund \$65,000. Of this amount, \$25,000 have already been expended for securing the site. The building will be erected as soon as \$100,000 have been collected. During the past year 239 patients have been treated, with 3 deaths.

Consumption Sanatorium, Nova Scotia.—A building will soon be erected at Kentville, King's county, of wood, 2 stories high, with approved modern conveniences and accommodations for 50 patients, for use as a consumption sanatorium. A medical officer, appointed by the Governor of the province, will be in charge.

Ross Memorial Hospital, Lindsay, Ontario.—This new hospital, the gift of Mr. James Ross, of Montreal, in memory of his mother, was opened to the public November 20.

New Scarlet Fever Serum.—Dr. G. A. Carleton, Rockefeller fellow in pathology, working under the direction of Professor Adami, of McGill University, has published preliminary notes upon an antistreptococcus serum, employed in severe cases of scarlet fever, in the *Montreal Medical Journal*, for October, 1902. Of 15 cases treated at the Montreal Civic Hospital, 13 made prompt recoveries without complications.

No Bubonic Plague in Canada.—Through the vigilance of the quarantine officers on the Pacific coast, bubonic plague has thus far been kept out of Canada. Not a single case has been reported at the William Head Quarantine Station, on Vancouver Island. The Canadian Pacific authorities inspect all passengers boarding their vessels at Hong Kong, particularly Chinese passengers.

New Children's Hospital, Montreal.—A new hospital for children, to be called the Children's Memorial Hospital to Queen Victoria, will soon be built near Mount Royal, to serve as an annex to both the General and Royal Victoria Hospitals, Montreal. There will be accommodations for not less than 15 patients, preferably the tuberculous and those with deformities of the extremities and spine. The physicians in charge will be Drs. F. J. Shepherd, A. D. Blackader and H. B. Cushing.

Notre Dame Hospital, Montreal.—At the annual meeting, held recently, it was stated that a new hospital, modern in all equipments, would be erected next spring in Lafontaine Park. During the past year 2132 cases were under treatment, 91 of them dying. Of these 45 were brought into the hospital moribund. 1813 were discharged as cured or improved, and 185 were discharged as unimproved.

MISCELLANEOUS.

Cholera in the Philippines.—The Philippine Commission cabled, November 21, that the number of cases of cholera

had decreased to 5 a day, instead of 34 daily the week before. It is believed that the Mariquina watershed, which furnishes the water-supply of Manila, will not be contaminated. The disease is, however, spreading among the Moro towns on the West coast of Mindanao, where there is much destitution among the people.

Consumption in the United States.—Washington statistics show that the highest death-rate for consumptives was found in the District of Columbia. During the last census year, 109,750 deaths occurred from consumption in the United States, 56,124 of them in females. In 1900 the death-rate per 100,000 from consumption was 187.3; in 1890 it was 245.4. The death-rate among the negroes last year was 490.6; among white people, 173.5. Persons born of native parents are much less susceptible than those foreign born.

Yellow Fever.—There are several more cases of yellow fever reported in Port Limon. The Sanitary Board of Lima, Peru, has directed that all vessels from Panama must be quarantined as long as yellow fever exists there.

Deaths in Buenos Ayres.—The death of 2 professors in the Buenos Ayres medical school recently occurred: Dr. A. Castro, professor of surgery and Dr. M. Gonzales de Solar, professor of hygiene.

Bubonic Plague in Honolulu.—The amount of indemnity to be paid Chinese residents of Honolulu, for the losses incurred through the burning of the section of city in which they live, in order to stamp out bubonic plague, is \$800,000, one tenth to be paid at once, the balance within a year.

Obituary.—Dr. Andrew G. Clark, at Parkersburg, Ky., November 7, aged 79 years.—Dr. Carl Pesold, at St. Louis, Mo., November 6, aged 44 years.—Dr. John M. Cunningham, at Mailington, W. Va., November 20, aged 30 years.—Dr. P. P. Du Val, at Richmond, Va., November 20, aged 76 years.—Dr. Frederick E. Pottor, at Portsmouth, N. H., November 18, aged 63 years.—Dr. Frank Livermore, at New York City, November 18, aged 61 years.—Major Walter Reed, at Washington, D. C., November 23, aged 51 years.—Dr. William Price, at Philadelphia, Pa., November 22.—Dr. Charles P. Leonard, at Philadelphia, Pa., November 24, aged 44 years.—Dr. Edwin Granville, at Kansas City, Mo., November 24, aged 59 years.—Dr. S. A. Suloff, at Lewistown, Pa., November 24.

GREAT BRITAIN, ETC.

Memorial to Virchow.—The British Committee, of which Lord Lister is chairman, met November 21, in London, and elected honorary officers for the collection of subscriptions or the erection of the memorial to the late Professor Virchow in Berlin.

Infants in Schools.—Dr. Newsholme, medical officer of health at Brighton, has recently pleaded for the exclusion of children under 5 years of age from the public schools. He states that there are 3,253 children between 2 and 3, 105,744 between 3 and 4, and 418,742 between 4 and 5, on the rolls of the infant schools in England and Wales. In 1900 they constituted 10.9% of the elementary classes, while in Scotland only 2.2% are under 5 years of age. In commenting upon this, the *British Medical Journal*, November 8, 1902, says that the facts seem to point to the advisability, not so much of ending the school attendance of young infants, as of mending the methods of dealing with them, by their subdivision into smaller groups and the improvement of the hygienic conditions of the class rooms.

Nobel Prize in Medicine.—News from London states that Major Ronald Ross, principal of the Liverpool School of Tropical Medicine, will probably be awarded the Nobel Research Prize in Medicine, amounting to \$40,000. Major Ross conducted several expeditions into the mosquito breeding districts of West Africa, and has published extensive researches upon the etiology of malaria. The Nobel prize will be awarded in December next.

Society for the Study of Disease in Children, London.—A special meeting will be held in December for discussing tuberculous peritonitis. Articles upon this important subject will be read by Drs. Cautley; Barr, of Liverpool; Fisher, of Bristol; Sutherland; Guthrie and Watson Cheyne.

CONTINENTAL EUROPE.

Virchow Memorial.—The Committee which, on the occasion of Virchow's eightieth birthday, collected subscriptions for the Virchow fund, has undertaken the collection of subscriptions for a memorial to be erected in some public place in Berlin, in memory of Rudolf Virchow. The American Committee, consisting of Drs. F. Billings, 100 State street, Chicago, Ill.; T. D. Coleman, 505 Greene street, Augusta, Ga.; A. Jacobi, 19 East Forty-seventh street, New York City; W. W. Keen, 1729 Chestnut street, Philadelphia, and W. H. Welch, 935 St. Paul street, Baltimore, Md., is anxious and ready to receive contributions for this monument fund. Professor Waldeyer, of Berlin, is chairman, Professor Posner, secretary, of the German Committee.

Fourteenth International Medical Congress.—The American committee, of which Dr. J. H. Huddleston, 126 West 85th. street, New York City, is secretary, announces that blank forms of application addressed to the Bureau des Logements, Madrid, forms of applications for those who desire to read papers at the congress, as well as other literature bearing on the subject, may be obtained upon request from the secretary.

Odessa Free From Plague.—Under date of November 22, Odessa has been officially declared free from plague, and export trade from that port has again been permitted.

Smallpox in Lisbon.—Virulent smallpox appeared in Lisbon, Portugal, early in November. Under date of November 19, 200 new cases were reported in one day. The hospitals are full and wooden sheds are being constructed to accommodate the sufferers.

University Notes.—**Athens:** Dr. G. Phokas, of Lille, has been appointed professor of surgery.—**Berlin:** Dr. Fürbringer, professor of internal medicine, will resign his position as director of the medical department of the Friedrichshain Hospital, which he has held for 17 years, April 1 next.—Dr. J. Boas celebrated his seventieth birthday November 2.—A polyclinic for internal diseases has been arranged in the Charité Hospital for Dr. Schweninger, formerly Bismarck's physician, who already is the director of a hospital, lecturer on general pathology and therapeutics, and instructor in the history of medicine.—**Berne:** Dr. Karl Emmert, professor of medical jurisprudence, has just been retired.—**Breslau:** Dr. Hinsberg, of Königsberg, has been appointed professor of otology, laryngology and rhinology, in the place of Dr. Kümmel, who has been called to Heidelberg.—Dr. Grempler celebrated the anniversary of 50 years as a physician, October 27, when he received the honorary title of professor.—**Graz:** Dr. Franz Chvostek, of Vienna, has been made professor of internal medicine in Dr. Kraus' place.—It is rumored that Dr. Kreibisch will succeed the late Dr. Jarisch, his former chief, as professor of dermatology.—**Halle:** Dr. Braunschweig has received the honorary title of professor of ophthalmology, and Dr. Sobernheim that of professor of hygiene.—**Heidelberg:** Dr. Kümmel, of Breslau, has been appointed director of the otological clinic, succeeding Dr. Passow, who has been called to Berlin.—**Kasan:** Dr. Nikolai Kotowschtschikow, professor of therapeutics, celebrated the completion of 30 years as a teacher on October 6.—**Kiel:** Dr. E. von Düring, professor of dermatology in Constantinople, has been appointed director of the newly erected dermatological clinic.—**Lausanne:** Dr. Roudi has been appointed professor of anatomy.—**Moscow:** In memory of the late Dr. Koshechnikow, professor of psychiatry and president of the Neuropathological Society of Moscow, a neuropathological institute will soon be founded in a street, the name of which is to be changed to Koshechnikowstreet.—**Prague:** Dr. Victor Rothmund, of Leipzig, has been appointed professor of physiological chemistry in the German University.—**St. Petersburg:** Dr. A. J. Moissejew has been appointed professor of pathological anatomy and histology.—**Vienna:** Dr. Gussenbauer, professor of surgery, celebrated his sixtieth birthday, October 3 last. His present and former pupils presented him with a portrait of himself.—**Warsaw:** Dr. A. Grigoriew has been appointed professor of medical jurisprudence.

Obituary.—Dr. Ferdinand F. Fuhr, professor of surgery in the University of Giessen, well known from his excellent work upon the treatment of goiter, died in Giessen, November 3, in his fiftieth year.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

November 8, 1902. (No. 2184.)

1. An Operation for Gall-Stones with the After-history of a Series of Cases Operated Upon.
RUTHERFORD MORISON.
2. A Discussion on the Treatment of Chronic Enlargement of the Prostate. P. J. FREYER, ALEXANDER, WILLIAM MACEWEN, JORDAN LLOYD, PARKER SYMS and REGINALD HARRISON.
3. Purse-string Suture in Gastrorrhaphy for Gunshot Wounds: An Experimental Contribution. N. SENN.
4. The Diagnosis of Urethral Diseases.
FRED. C. VALENTINE.
5. Thirty Cases of Gastro-Enterostomy for Nonmalignant Affections of the Stomach. T. K. DALZIEL.
6. Renal Decapsulation versus Nephrotomy, Resection of the Kidneys and Nephrectomy. G. M. EDEBOHL'S.
7. Value of Blood Counts in Abdominal Diseases.
C. N. LONGRIDGE.
8. Union of Intestine. E. S. BISHOP.
9. A Case of Resection of the Stomach: Patient Well 18 Months Later. A. W. MAYO ROBSON.
10. The Removal of Deformities of the Nose by the Subcutaneous Injection of Paraffin.
WALKER DOWNIE.
11. A Case of Complete Excision of the Urinary Bladder.
A. W. MAYO ROBSON.
12. The Radical Cure of Femoral Hernia.
JAS. H. NICOLL.
13. Rodent Ulcer: Its Pathology and Treatment.
J. M. MCFEELY.
14. Three Cases of Hour-Glass Contraction of the Stomach Treated by Operation. HASTINGS GILFORD.
15. Two Cases of Urethrectomy for Traumatic Stricture.
J. LYNN THOMAS.
16. Modified Vulliet's Nephropexy Simplified by the Use of a Swivel-Tenotome. J. LYNN THOMAS.
17. A Series of Cases Illustrating the Complications of Gall-Stone Disease. G. A. MOYNIHAN.

1.—Morison advocates a **transverse incision for exposure of the biliary apparatus**. The incision begins one inch below the tip of the last rib and extends to a point situated at the upper part of the middle one-third of a line drawn from the ensiform cartilage to the umbilicus. All the layers of the abdominal wall including the rectus are divided. A gauze pad is packed into the abdomen under the lower flap of the wound and over the colon and omentum, shutting off access to the general peritoneal cavity, and on the inner side and in front of the stomach is protected by gauze packing. The wound may be more thoroughly opened by making the ilio-costal space of the right side convex, and this is accomplished by pushing the hips and shoulders to the left. A table giving the after-histories of 43 cases is included in the paper. Of the 43 patients, 7 complained subsequent to operation, due to stones left or stones re-formed. Four of the cases presented a hernia in the region of the scar; in one of these the incision was longitudinal and in the other 3 the hernia was due to defective suturing. [F. T. S.]

2.—Freyer reports 7 additional cases of **suprapubic enucleation of the prostate**. He has abandoned the employment of any cutting instrument for incising the mucous membrane over the prostate; he penetrates this layer with the sharpened finger nail, the prostate being steadied with a finger of the other hand in the rectum. He has thus far performed the operation 21 times. In 19 cases an absolute and complete cure has ensued. The remaining 2 patients died, one from acute mania and one from heat-stroke. Alexander, MacEwen, Syms and Harrison favor perineal prostatectomy. [F. T. S.]

3.—Senn, as a result of experiments on dogs, concludes that the **purse-string suture for gunshot wounds of the stomach** compares favorably with ordinary methods of suturing, besides being easier in application and consuming less time. The wound in the posterior wall of the stomach may be closed by everting the posterior wall through the anterior wound, and placing the purse-string suture around the posterior wound from the mucous membrane side.

[F. T. S.]

5.—Dalziel reports 30 cases of **gastro-enterostomy for nonmalignant affections of the stomach**. Eighteen of these cases presented a well-marked intrinsic contraction of the pylorus. In 8 cases the obstruction was due to causes outside of the pylorus, 2 of these being the result of adhesions subsequent to a peritonitis originating from old tuberculous glands behind the pylorus. In 3 cases the posterior wall of the stomach was found adherent to such an extent as to interfere with its muscular action. In one case there was marked dilation of the stomach without any apparent physical cause. Gastrolysis has proved to be an unsatisfactory procedure, and in cases in which the trouble depends on perigastric adhesions it is better to put the stomach at rest by the performance of a gastro-enterostomy. With 4 exceptions all the operations have been posterior gastro-enterostomies, the anterior being performed in one case by selection, and in the others it was made necessary by the presence of extensive posterior adhesions. As soon as the nausea of anesthesia has passed, water and barley water are given freely by mouth. Eighteen of the cases are completely cured, 3 are greatly improved and the remaining cases suffer occasional attacks of indigestion. [F. T. S.]

6.—Edebohls states that because of the comparative innocuousness of the procedure, the lessened danger of hemorrhage, the greater simplicity of the after-treatment and the avoidance of urinary fistula and its sequelæ, he prefers **renal decapsulation** to nephrectomy, resection of the kidney and nephrotomy whenever it will answer the purpose equally well or better than the last named operations. He presents a preliminary report of 6 cases in which renal decapsulation has been performed for conditions other than chronic Bright's disease. They are as follows: (1) Acute pyelonephritis and miliary abscesses of both kidneys, complicated with chronic Bright's disease; right nephrectomy and decapsulation of the left kidney. (2) Acute right pyelonephritis with miliary abscesses; decapsulation of the right kidney. (3) Acute hemorrhagic nephritis; decapsulation of both kidneys. (4) Intermittent hydronephrosis of the right kidney associated with chronic Bright's disease; decapsulation and fixation of the right kidney. (5) Intermittent right pyonephrosis and chronic interstitial nephritis; decapsulation and fixation of the right kidney. (6) Polycystic degeneration of the kidneys and chronic diffuse nephritis; decapsulation of both kidneys. All of the patients made satisfactory recoveries. [F. T. S.]

7.—Longridge gives the differential blood-counts of 36 cases of appendicitis and of 13 cases exhibiting other abdominal affections. [F. T. S.]

8.—See *Philadelphia Medical Journal*, Vol. 10, No. 11, page 345.

9.—Robson reports a case of **resection of the stomach for sarcoma (?)**, all of the stomach excepting a small portion near the esophagus being removed. The patient is well at the end of 18 months. [F. T. S.]

10.—Downie reports 6 patients in whom **deformities of the nose** have been removed by the **subcutaneous injection of paraffin**. Fifteen minutes before operation he paints a band of celloidin across the nose at the level of the eyes and down each side of the nose at its junction with the cheeks; this contracts as it dries and helps to prevent the paraffin from passing into the cellular tissue beneath the eyes. Paraffin is made fluid by immersion in boiling water. To prevent the paraffin solidifying in the needle, the needle is kept hot by a fine platinum wire which is

wound around it and which is connected with a storage battery. Before the needle is withdrawn a piece of gauze soaked in cold water is placed over the nose to cause the paraffin to set and so prevent its escape when the needle is removed. Nine months have passed since the earlier cases were done and still the nose remains as shapely as it was after injection, and there has been no evidence of absorption nor of migration of the paraffin.

[F. T. S.]

11.—Robson reports a case of complete **excision of the urinary bladder for carcinoma**. After removal of the bladder, catheters were inserted into the divided ureters and secured in position by catgut stitches. The ureters were then implanted into the vagina, the catheters passing out of the vulva into two bottles. The patient died on the thirteenth day from uremia. [F. T. S.]

12.—Nicoll describes a new operation for the radical cure of femoral hernia. The sac is bisected longitudinally in the middle line, cleared of its contents and separated from the parts surrounding its neck for a distance of one inch. One-half of the sac is pulled through an aperture made in the other half near the neck and the whole sac is reduced into the extraperitoneal space previously cleared for it. The pubic ramus is cleared internal to the femoral vein, and 2 holes are drilled near its upper margin. These holes serve for the passage of catgut sutures which draw Poupart's ligament down to the bone, thus absolutely closing the femoral ring. The operation is completed by uniting the detached margin of the pectineal origin and the pubic portion of the fascia lata to the anchored Poupart's ligament. [F. T. S.]

13.—McFeely treats **rodent ulcer** with pure formalin. In cases in which bone is involved or in which tissue destruction is great, the patient is anesthetized, the diseased tissue removed by the curette or knife, suprarenal extract applied to stop bleeding and then formalin used. The slough resulting is allowed to separate spontaneously. Three cases are reported. [F. T. S.]

14.—Gilford reports 3 cases of **hour-glass contraction of the stomach** treated by the Heinike-Mikulicz gastropasty. Two of the patients made satisfactory recoveries, but the third died at the end of a month from a giving way of part of the wound in the stomach. [F. T. S.]

15.—Thomas reports 2 successful cases of **urethrectomy for traumatic stricture of the urethra**. He resects the stricture completely and anastomoses the urethra by passing catgut sutures down to, but not through, the mucous membrane, so that the knots are situated outside of the urinary canal. The fascia is next sutured and finally the skin closed. No drainage is employed and instrumentation of the bladder is not resorted to. The patients are allowed to empty the bladder voluntarily. [F. T. S.]

16.—Thomas has performed **nephropexy by the Vulliet method** 10 times with satisfactory results. Vulliet's nephropexy consists in the fixation of the kidney by means of a detached strip of the tendon of the erector spinæ passed through the parenchyma of the kidney. Thomas suggests the use of a small swivel fixed to a long delicate handle for the purpose of facilitating the separation of the fasciculus of tendon. He makes 2 longitudinal incisions in the fibrous capsule of the kidney, one near the outer border of the organ, and one near the hilum; the capsule is then freed from the parenchyma by blunt dissection, and the split tendon of the erector spinæ is passed beneath the separated capsule from without inward, the ends being secured in a wound near the spine. A few sutures are passed through the capsule and the fascia lumborum. [F. T. S.]

17.—Moynihan reports a series of 14 cases illustrating the following **complications arising from gall-stone disease**: (1) Impaction of stone in the cystic duct, followed by hydrops, empyema and cystoduodenal fistula. (2) Sloughing of the gall-bladder and formation of a fistula between it and the stomach. (3) Perforation of the gall-bladder and for-

mation of a fistula between it and the stomach. (4) Impaction of stones in the hepatic and common ducts. (5) Impaction of stones in the common duct. (6) Impaction of stones in the ampulla of Vater. (7) Primary carcinoma of the gall-bladder. When the surgeon opens the abdomen for gall-stone disease he must be prepared to meet and deal with any complication, and complications are met in from 20 to 30% of all gall-stone operations. Owing to the absence of risk to life in uncomplicated operations and to the assurance of complete clearance of the biliary passages of stones, patients should be subjected to operation at an early period of the disease. [F. T. S.]

LANCET.

November 8, 1902.

1. The Bradshaw Lecture on Intraperitoneal Hemorrhage Incident to Ectopic Gestation.
CHARLES J. CULLINGWORTH.
2. Clinical Remarks; Round-About Constipation.
JAMES F. GOODHART.
3. Four Lectures on the Nature, Causes and Treatment of Cardiac Pain. Lecture II.
ALEXANDER MORISON.
4. An Analysis of a Series of 500 Consecutive Operations for Primary Cataract Performed in Five Months in the Government Ophthalmic Hospital, Madras.
R. H. ELLIOT.
5. Tapeworms as a Possible Cause of Diabetes.
JOSEPH EDWARD JUDSON.
6. A Case of Large Dermoid Cyst Complicating Labor.
BRYCE J. MACAULEY.

1.—Cullingworth discusses **intraperitoneal hemorrhage incident to extra-uterine pregnancy**, including both the limited and the unlimited effusions of blood due to this cause. If the hemorrhage is considerable and takes place rapidly, the blood escapes into the general peritoneal cavity and remains diffused among the abdominal viscera. This condition is accompanied with all the symptoms of concealed hemorrhage associated with extreme tenderness of the abdomen. The diffuse or encysted variety of hemorrhage constitutes the so-called **pelvic hematocele**. This is ordinarily characterized by irregular uterine hemorrhage and by attacks of abdominal pain, often accompanied with vomiting. No symptom is more misleading than the vomiting. It is constantly accepted as proof that the mischief is in the appendix vermiformis, or at any rate that it is intestinal. Taylor describes the process of rupture in the tubal sac and the changes that take place in the tubal wall during ectopic pregnancy. [W. A. N. D.]

2.—Goodhart contributes an address entitled **round-about constipation**. In his clinical remarks he discusses at some length the various causes of constipation, the symptoms and signs of this condition, and details of the reports of several cases. [F. J. K.]

3.—Abstract will appear when lecture is concluded.

4.—Elliot presents an analysis of a series of **500 consecutive operations for primary cataract**, performed between June 22 and November 2, 1901, a period of 19 weeks, in the Government Ophthalmic Hospital, at Madras. All but 36 of these operations were done on the Saturdays of this period, making an average of 27 operations for each operating day. On an average of from 12 to 16 patients were operated upon in an hour. In making a section in the sclerocorneal margin, the author endeavors to graduate the section according to the size of the lens. Each patient was inspected and dressed daily after the operation. As little interference with the parts as possible is made after operation. Atropine is used as a routine measure on the third morning after operation, provided there is no contra-indication: the sound eye is unbound on the fifth morning, the eye operated upon is released on the seventh day if all is going well, and the patient is discharged at this time to report as an out-patient. Stress is laid on the importance of treating any complication that may be present prior to operation. This applies even to slight congestion of the conjunctiva. The author presents an interesting analysis of the complications and of the results obtained in these cases, and closes with the

warm commendation of McKeown's irrigating apparatus, which, he states, reduced the vitreous losses in this series to 2%; by emptying the capsule and chamber of debris it has minimized the need for subsequent capsulotomy and has enabled the author to dispense with the introduction of instruments into the eye after the escape of the nucleus; it is of great value in clearing the chamber of fluid; by gently and evenly replacing the iris, it has been most valuable and it has expedited recovery, inasmuch as it has left behind so little cortex to be absorbed; another advantage which it possesses is that of rendering operation possible in very immature cataracts. [J. H. G.]

5.—Judson contributes an interesting report of 2 cases of diabetes associated with tapeworms and suggests that the tapeworms may have acted as a cause of the diabetes. He points out that the head of the tapeworm might enter the pancreatic duct, and in this way inflammatory changes might occur in the pancreas with the production of a pancreatic form of diabetes. [F. J. K.]

6.—Macauley records the case of a large dermoid cyst complicating labor, in a primiparous woman, 27 years old. The child was stillborn, and the patient succumbed on the sixth day from peritonitis. [W. A. N. D.]

MEDICAL RECORD.

November 22, 1902.

1. Repeated Ectopic Gestation. BROOKS H. WELLS.
2. Typhoid Fever, Symptomatology and Clinical Diagnosis. CHARLES E. NAMMACK.
3. Monoplegia Disturbances of Sensibility in Cortical Paralysis. SOL. G. KAHN.
4. A Clinical Report on the Use of Argyrol (Silver Vitelline) in Diseases of the Nose, Throat and Ear. M. D. LEDERMAN.
5. Relation of Consciousness to the Nervous System. AXEL E. GIBSON.

1.—Wells reports a case of repeated ectopic gestation. The patient was operated upon for a ruptured ectopic pregnancy; after an interval of one year and three days a second abdominal section was performed on the same patient and the second gravid tube removed. Wells presents a résumé of the literature of this condition. He states that it is probable that the most frequent etiological factor leading to the abnormal implantation of the ovum is a mild infection of the tube which, causing a change in its epithelial lining, increases the time occupied in the passage of the fertilized ovum through the tube. [T. L. C.]

2.—Nammack discusses the symptomatology and clinical diagnosis of typhoid fever. He groups the cases as follows: (1) Ordinary typhoid fever with marked enteric lesions, this includes the immense majority of all cases. (2) Typhoid septicemia, a general infection with the bacilli without local manifestation. At the bedside these cases present the picture of a severe intoxication with high fever and delirium. (3) Typhoid fever with localization other than enteric, clinically the typhoid fever will be masked by the predominance of symptoms referable to the lungs, kidneys, meninges or spleen. (4) Mixed infections, not double infections as with the bacillus tuberculosis, etc., but conditions induced by one organism which favor the growth of other pathogenic forms, thus causing secondary infection with the colon bacillus, the streptococcus, staphylococcus or the pneumococcus. [T. L. C.]

3.—Kahn reports a case of depressed fracture of the right parietal bone. A monoplegia resulted with disturbances of sensibility. The patient made an uninterrupted recovery after operation. This patient suffered from a lesion of the motor area in the region of the anterior and posterior central convolutions and, as the wound in the skull bore evidence, the lesion was over the center for motion of the upper extremity. Not only paralysis, but also an anesthesia of the paralyzed limb resulted. Kahn observed that this case demonstrates the correctness of the view that the motor area of the brain cortex is also the center for skin sensibility of the same part. [T. L. C.]

MEDICAL NEWS.

November 22, 1902. (Vol. 81, No. 21.)

1. Obsessions; Fixed Ideas; Indecisions; Imperative Conceptions; Abulias; Phobias. THEODORE DILLER.
2. The Significance of the Terms Acute and Chronic. ALLEN J. SMITH.
3. Neurasthenia. JOSEPH M. AIKEN.
4. A Study of Sex-Production in Man. LUIS KOLIPINISKI.
5. General Remarks on Nasal Obstruction. JOHN A. DONOVAN.

1.—Diller's paper is designed to include a group of mental symptoms more or less allied, occurring in various psychological states, which have been called by various writers fixed ideas, impulses, abulias, besetments, imperative conceptions and phobias. Obsessions are divided by the author into (1) of doubt; (2) of fear; (3) of impulse; (4) of miscellaneous ideas; (5) abulias. The treatment must be more mental than medicinal and must be adapted to each individual case. Efforts must be directed toward maintaining the physical tone, and no measures are here so generally useful as the simple rules of hygiene, the use of hydropathy, massage and electricity. [T. M. T.]

2.—Smith defines the term *acute*, as applied to a pathological process; it indicates of such a disease that it runs a fairly regular and limited course, such course being frequently, although not necessarily, attended with severity of symptoms, and the limitation being possibly in recovery. Chronic may be applied in conditions presenting no definite duration, more or less irregularly in the presentation of symptoms, a variable severity of symptoms, and ordinarily limited only by the death of the patient. [T. M. T.]

3.—Aiken advises drugs in the following order in cases of neurasthenia: Iron, usually in some form of the peptonates which is most acceptable to the stomach and assimilative organs. Gentian or any of the bitter drugs, combined with strychnine and glycerine are the most useful tonics. Alkalis are of great service in this condition. The glycerophosphates of lime and soda have given good results in the author's experience. Fluid extract of aqueous solutions should be used to avoid the alcohol. If stomachic fermentation be present, hydrochloric acid with pepsin is indicated. For hypnotics trional and the bromides, given in hot milk or broth, are the most useful. Opium and its derivatives with alcohol in every form are to be avoided. Constipation is best treated by gradually decreasing doses of salines with increased ingestion of water. [T. M. T.]

4.—The following interesting facts are mentioned in Kolipinski's article: (1) That there are born more males than females. According to the tables accompanying the article there were born 594 boys to 576 girls, or 103 to 100. (2) Twin births occur once in 80 to 90 single births; more twin boys than twin girls, and mixed twins more numerous than either. In the 1,170 births, twins occurred 15 times, or 1 to 78; boys 6; girls 5; mixed 4. (3) That older fathers produce more boys, and that wives older than their husbands produce more girls. (4) That prostitutes give birth to boys. (5) That Jews produce more boys than the people of the race or the nation with whom they live. (6) That male drunkards produce boys. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

November 22, 1902.

1. Ten Instructive Cases for the General Practitioner in Medicine, with Remarks Upon the Detection and Relief of Eye Strain. AMBROSE L. RANNEY.
2. The Prevention of Intestinal Diseases in Infants During the Summer. CHARLES GILMORE KERLEY.
3. Rubber Gloves. ROBERT T. MORRIS.
4. A Special Type of Crooke's Tube for Therapeutic Applications of Röntgen's Rays to the Cervix of the Uterus. E. W. CALDWELL.
5. Three Cases of Shark Bite. J. A. GUTHRIE.

1.—Ranney reports 10 selected cases of eye strain, each one of which illustrates some special type of manifestation in consequence of reflex disturbances upon the nerve centers. These case-histories, which are reported in full, prove that scientific investigation and correction of eye strain can cure apparently hopeless cases. In 3 of the cases organic diseases of the brain or spinal cord have been diagnosed. Chronic diabetes may be excited by eye strain alone, which, when relieved, may cause the total disappearance of glycosuria. The relationship between eye strain and laryngeal spasm, neuralgia, epilepsy and the persistent reflex spasm of a localized group of muscles is well illustrated. These cases prove that careful, long-continued investigation of errors of refraction and anomalies of the adjustment of the eye muscles should never be omitted when the eye strain is suspected. [M. O.]

2.—From June 1 to October 4, 1902, the mortality from intestinal diseases in children under 5 years in the Borough of Manhattan was 1892. In Greater New York it was 3,988. Out of 278 children in the New York Infant Asylum, 92 had gastro-intestinal attacks. Two of these died of enterocolitis. Prostration was slight in 18, moderate in 48 and marked in 26. There were vomiting and diarrhea in 21, diarrhea alone in 71. Abstinence from milk, in the 90 patients who recovered, lasted one day in 26, 2 days in 34, 3 days in 19, 4 days in 6, and 5, 6, 7 and 8 days in one case each. In the 2 fatal cases the illness lasted 2 and 3 days. Beside repeating the treatment which Kerley has already detailed in several articles, Kerley and Hughes lay great stress on country homes, floating hospitals, etc., in the prophylaxis of summer diarrhea. For the disease is preventable by administering clean, suitably prepared and properly cared-for milk. [M. O.]

3.—Morris objects to rubber gloves in all operations, because the sense of touch is not so acute beneath them. They are, however, of use in long operations, in operations upon diabetic patients, and in operating after cases of septic peritonitis. He objects to their use by young surgeons, also. [M. O.]

5.—Guthrie reports 3 cases of shark bite, occurring in the Philippines. In one patient the wound was so extensive that amputation was performed in the middle third of the left thigh. The other 2 patients, in whom the wounds were not so severe, recovered rapidly. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

November 20, 1902. (Vol. CXLVII.)

1. Barber-Surgeons. FREDERICK W. TAYLOR.
2. Tetany in Gastric Disorders.

LAWRENCE W. STRONG.

3. Notes on the Diagnosis and Treatment of Early Miscarriage. L. V. FRIEDMAN.

2.—To be abstracted when concluded.

3.—Friedman in his notes on the diagnosis and treatment of early miscarriage mentions: (1) Pain associated with uterine bleeding suggests miscarriage; (2) not rarely do the symptoms of miscarriage simulate those of a bleeding extra-uterine pregnancy. The author gives the following points suggestive of extra-uterine pregnancy: (a) Palpation of a tender mass at the side of the uterus or in the fossa of Douglas; (b) the discharge from the uterus of a decidua graviditatis without chorionic villi; (c) disproportion between the severity of pain and the size of the uterus; (d) disproportion between blood lost and a pulse which indicates hemorrhage; (e) in extra-uterine pregnancy the uterus does not present the globular enlargement of pregnancy and does not increase beyond the size of a ten-weeks' uterus; (f) its enlargement is longitudinal only, never anteroposterior or transverse. (3) The question of threatened or inevitable miscarriage must remain always one of personal judgment in the individual case. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 22, 1902.

1. Concerning some Vaccinal Eruptions.
HENRY W. STELWAGON.
2. The Decentering of Lenses for Near Work.
G. C. SAVAGE.
3. The Genesis and Treatment of the Myopic Eye.
S. D. RISLEY.
4. The Need of Correcting Ametropia after Middle Life.
C. M. CULVER.
5. The Prognosis and Treatment of Croupous Pneumonia; with an Analysis of the Cases Treated in Cook County Hospital for Fifteen Months Preceding April 1, 1902. E. FLETCHER INGALS.
6. The Present Aspect of the Tuberculosis Problem in the United States. S. A. KNOPF.
7. Essentials in the Construction of Hospitals for Large Cities. A. J. OCHSNER.
8. Death Due to the X-ray? MAURICE RUBEL.
9. Binocular Magnifier for Use in Operation.
EDWARD JACKSON.

1.—Stelwagon contributes an address entitled *some vaccinal eruptions*. He maintains that Frank's classification of the vaccinal eruptions seems at the present time the most appropriate one. This classification is given. The author then discusses the various skin eruptions at some length.

[F. J. K.]

2.—Savage discusses the decentering of lenses for near work. He has formulated 11 rules governing the decentering of lenses, and he emphasizes that the decentering of lenses or prisms in positions of rest is the only one way of dealing with muscle errors. He thinks that, if the rules mentioned are followed, comfort from the lenses will be experienced, provided the prismatic effect is not too much. He holds that the maximum vertical prismatic effect should be placed at one degree, certainly not more than 2 degrees, and the maximum lateral prismatic effect should be placed at 2 degrees, certainly not more than 4 degrees. In the greater number of cases the prismatic effect should correct about one-half the manifest error, but in some cases a full correction, especially of a small vertical error, may be given. He points out that prisms and decentered lenses interfere with some of the visual judgments and, therefore, are objectional. For this reason it is better to cure muscle errors of low degree by proper prismatic exercises, while muscle errors of high degree should be treated surgically.

[F. J. K.]

5.—See *Philadelphia Medical Journal*, June 21, 1902, page 1099.

6.—See *Philadelphia Medical Journal*, June 21, 1902, page 1115.

7.—See *Philadelphia Medical Journal*, June 21, 1902, page 1102.

8.—Rubel narrates the history of a patient, a woman, 47 years of age, in whom the cause of death was possibly due to the X-rays. His conclusions are as follows: From these few cases so meagerly reported, one cannot arrive at any conclusions. It is certain that in the literature there is no authentic case of death directly due to and following the use of the X-rays. All of the 3 cases had sustained an accident, and it is quite probable that death was directly or indirectly due to these injuries, and that the Röntgen rays had nothing whatsoever to do with it. The case in question, it seems to him, is quite different from those cited. In the first place, there had been no accident and the patient was in a fairly good general condition before the burn occurred. That she gradually and steadily declined after the appearance of the abdominal lesion, there is no doubt. Whether this progressive decline, with the concomitant gastro-intestinal symptoms, was due to internal tissue injury following the use of the X-ray, or whether it was the manifestation of some organic trouble, it is very difficult to say. That the case was a very

peculiar one is certain. The author reported it in the hope that, if they exist, it may bring reports of similar cases to press, and with the intention of bringing before skia-graphers the possible serious results that may be attributed to the use of the X-rays. [F. J. K.]

9.—Jackson has devised a binocular magnifier for use in operating, which enables the operator to illuminate the field of operation and still keep both hands free. A description and illustration of the magnifier and illuminating mirror are given. The instrument is particularly serviceable in such minor surgery as the removal of misplaced lashes or foreign bodies embedded in the cornea, as well as in the more serious operations, like the division of the capsule for secondary cataract. [F. J. K.]

AMERICAN MEDICINE.

November 22, 1902.

1. The Surgical Treatment of Epilepsy. ROSWELL PARK.
2. The Pathology of Katabolism in Relation to the Etiology and Pathology of Cancer and Allied States. HOMER WAKEFIELD.
3. A Nasopharyngeal Tumor, with Exhibition of Patient. G. HUDSON MAKUEN.
4. Remarks on Verbal Amnesia, Apropos of a Case of Sensory Aphasia. ALFRED GORDON.
5. Adenocarcinoma of the Male Breast. FRANK C. HAMMOND.
6. A Modification of Gersuny's Method of Paraffin Injections in So-called Saddle-nose, to Prevent Disturbance of Muscular Action of the Nose. FRANCIS ALTER.

1.—Park concludes an article on the surgical treatment of epilepsy with the following summary: (1) Epilepsy is the last disease to which surgical measures should be indiscriminately applied. In judiciously selected cases, radical operations of various kinds, suited to the individual needs of each case, have given far more satisfactory results than has nonoperative or medicinal treatment. (2) Every case must be studied as a problem by itself. The only general laws applying are those regarding the removal of peripheral or local foci of irritation and the destruction of paths of conduction which convey disturbing impulses. In each case we must decide as to the operative method by which we may meet these indications. (3) In order to obtain the best results patients should be seen early. It would be well to have every epileptic carefully studied by an accomplished surgeon, who should review the case with a view to the possibility of surgical intervention. (4) Operation, when indicated and undertaken, should be regarded as a first measure to be followed, and often preceded, by others looking to a correction of all faults of diet, of elimination, etc. Long-continued attention to these matters is the price of eventual success. (5) In those cases characterized by blanching of the face, when the seizures can be warded off or mitigated by the prompt use of amyl nitrite, we may consider the propriety of an excision of the cervical sympathetic. [T. L. C.]

4.—Gordon reports a case illustrating the condition of verbal amnesia. In this patient there is a partial loss of memory for words which interferes with correct writing and correct reading. It is not the idea but the verbal image that is wanting; when she cannot find the word that she is trying to remember, it is sufficient to remind her even of one syllable, when the whole word is immediately constructed in her mind, and then the sensory and motor images appear perfect. Gordon states that, whatever its localization may be, the existence of verbal amnesia as a clinical entity is very suggestive. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

September 18, 1902.

1. Nutrition During the Hot Period of the Year and in Warm Climates. F. HIRSCHFELD.
2. Contribution Concerning Bottini's Operation. S. JACOBY.
3. Practical Results of the Forensic Use of the Serum Diagnosis to Determine the Nature of Blood. Conclusion. UHLENHUTH.

4. Osmotic and Chemical Processes in Human Chyle. Conclusion. H. STRAUSS.

1.—Hirschfeld carried out his investigations on himself, during hot summer weather, in Würzburg. He found that when he took a plentiful amount of protein, his total caloric intake was decidedly lower than when he reduced the amount of protein and took more fat and carbohydrate. He believes that the reason for this is that meat satisfies hunger too quickly in hot weather, and that a person is likely to take too little food if he lives largely on meat. He thinks that more fat and carbohydrates should be used in hot weather or in hot climates than is customary, in order to keep nutrition at the proper point. Large amounts of cream or butter can be taken, when less digestible fats would not be well borne, and sugar, when well mixed with other substances, is well borne in large quantities. The author insists that Voit's teaching that a man doing moderate work needs 118 grams of protein, or thereabouts, is incorrect. He considers that 72 grams of absorbed protein is sufficient. We do not know the actual minimum amount that can be taken, but Hirschfeld insists that the quantity has certainly been put too high; and that, with a proper quantity of fat and carbohydrate, we can get along on a much smaller amount. [D. L. E.]

2.—Jacoby gives a detailed description of his modification of Bottini's instrument—a description not suitable for abstracting. He believes that this modification makes it possible to determine that the knife is being introduced at the proper place and that it is being carried through the tissues in the right direction. He thinks that the method may be used in all cases. [D. L. E.]

3.—Uhlenhuth concludes with a series of remarks. In the first place, he thinks it is wise to use chemical and spectroscopical methods for determining that one actually has blood present, but he believes that the serum-method makes it possible to determine definitely to what species the blood belongs. To accomplish this purpose, however, it is necessary to determine definitely that the serum used is a satisfactory one; and it is well to have some old specimens of blood at hand, so that the result in the specimen to be examined may be compared with that obtained with blood of about the same age. The author warns against the use of milky, opalescent, thick serums, which are occasionally obtained. He believes that it is to the use of these serums that the doubtful results in closely related species are due. He has satisfactorily preserved the serum for months with chloroform. Carbolic acid and corrosive sublimate are also useful; but formalin is not. [D. L. E.]

4.—Strauss criticises previous work concerning changes in the osmotic tension of the blood, and mentions some work that he has had carried out by Grossmann, part of which he did himself. He believes that this work indicates that the osmotic tension of the blood is not appreciably altered by the use of large amounts of either hypotonic or hypertonic mineral water. This is extremely interesting, if true, because it indicates that the human organism can, in spite of extremely varying circumstances, control, within very narrow limits, the physicochemical conditions of the circulation. The excretions seeming to be of more importance in this regard than the secretions. As to the chemical condition of the chyle, the author notes that the chlorides had no direct relation to the amounts of table-salt taken, and that the relation of the chlorides to the achlorides showed no definite change as the result of alimentary conditions. He thinks, however, that it is possible that alimentary conditions may cause an increase or a decrease in the amount of albumin. The sugar increased largely after giving large quantities of sugar by the mouth. The fat in the chyle was found to be but slightly split, scarcely 10% of it being found as fatty acids and soaps. This indicates that the intestinal mucous membrane must have an action upon fats similar to that upon albumoses; in other words, it must have an enormous synthetic action upon fats. Strauss also investigated the influence of human serum upon fat, and found that 51% of the ether-soluble substances in the chyle disappeared within 24 hours. He thinks, therefore, that he has demonstrated that human blood has a very active lipolytic function, like that previously demonstrated in the blood of animals. [D. L. E.]

September 25, 1902.

Tissue Growth and Tumor Development, with Especial Reference to the Parasitic Etiology of Carcinoma. MARCHAND.

Tuberculous Infection Through the Digestive Tract. A. HELLER.

The Influence of the New Tuberculin Upon Cell Metabolism. J. MITULESCU.

Once More Concerning Tactile Percussion. EBSTEIN.

The Early Diagnosis of Icterus. HAMEL.

The Question of the Importance of Fungi in the Production of Pathological Changes in the Stomach. ALFRED PETTERSON.

An Occasional Difficulty in the Determination of the Indican of the Urine as Indigo Red by Means of Isatin-Hydrochloric Acid. J. BOUMA.

The Treatment of Club-Foot. J. WIETING.

1.—To be concluded.

2.—Heller compares the statistics from Kiel and Boston with those published by Baginsky concerning cases of diphtheria and tuberculosis, with especial reference to cases of the latter arising through the digestive tract. He particularly insists upon the fact that the Kiel and Boston statistics correspond closely, while Baginsky's fall far below either. He considers that this indicates that statistics from different sources differ chiefly because different persons have collected them. He believes that the latest knowledge concerning the subject indicates that a **very many infection through the digestive tract occurs with considerable degree of frequency**. He mentions one patient, a boy of 13, in whom post mortem examination showed a large tubercular ulcer of the small intestine, a tubercular ulcer of the cecum, enlargement of the mesenteric glands, miliary tubercles of the liver and some amyloid change in the spleen, kidneys and suprarenals. Tuberculosis elsewhere was absent. Tubercle bacilli were present in the mesenteric glands. In this case it could not be determined whence the infection came; it seemed probable, however, that the child had received a considerable mass of infective material within a short time, in order to cause this advanced abdominal disease to develop within so short a period. [D. L. E.]

3.—The paper is a study of the influence of tuberculin injections upon nitrogen and phosphorous metabolism. A series of tables, obtained from a study of different subjects, is presented; these, the author believes, indicate that, when the food is sufficient to cover the ordinary demands of the organism and when fever does not occur from the action of the tuberculin, nitrogen and phosphorus metabolism is not notably disturbed; if, however, there is marked action, with fever and other general symptoms, phosphorus and nitrogen are excreted in excessive amounts, and, further, the general reaction interferes with the assimilation of food. Consequently, the **body-protein is broken down to a greater or lesser extent**. When the fever past, there is a retention of nitrogen and phosphorus. (To be continued.) [D. L. E.]

4.—This paper is merely a discussion of Bälz's article concerning plessesthesia. Ebstein considers this method much less accurate than his own, referring to a number of authors who have confirmed the value of his method. He also states that he has repeatedly controlled his results at post mortem examination and has found them to be extremely accurate. [D. L. E.]

5.—Hamel insists upon the importance of the fact that **bloodserum is found stained in icterus**, even in the earliest grades and even when the urine, at the time, shows absolutely nothing. The early diagnosis of icterus is often not made by an examination of the urine. The author thinks that a simple and accurate method for making the diagnosis is to **puncture the ear or finger and fill several capillary tubes, 1½ mm. in diameter and 2 mm. long, with blood; then to close the tubes at each end with sealing-wax, place them vertically and observe them after a few hours, when the serum and blood will become separated**. A yellow tinge to the serum is an early and important indication of jaundice.

[D. L. E.]

6.—The author reports a case with the symptoms of **gas-ulcer followed by perforation**. The patient was opera-

ted upon and recovered. Examination of the **peritoneal contents obtained at the operation showed large numbers of yeast-like cells**, which grew rapidly on agar. No other organism was obtained by culture. The fungus was found to be the *Dematium pullulans* de Bary. The other rare cases in which fungi have been found in peritoneal exudates are mentioned. This organism was investigated for pathogenicity with negative results. In order to determine whether it had any relation to the gastric symptoms, it was given to mice in large amounts in bread. It persisted in the stomachs of these animals, but **caused no symptoms and no pathological changes**. The same was true of guinea-pigs. Petterson considers that these organisms probably have no activity in the production of gastric disease or symptoms, thereby disagreeing with Einhorn.

[D. L. E.]

7.—Bouma refers to the fact that, in carrying out his method for the determination of indican in the urine as indigo-red, a blue color, together with the red, is often observed. Since the estimation is colorimetric, this interferes with accurate results; consequently, the author has tried various methods for getting rid of this indigo-blue color and satisfactorily oxidizing all the indoxyl to indigo-red. **The method devised and now carried out by him is to precipitate with lead-acetate; to pass H₂S through the filtrate; to filter off the lead-sulphate and to take 5½ cc. of this filtrate, add 10 cc. of isatin-hydrochloric acid and shake, after cooling, with 5 cc. of chloroform**. This chloroform extract is then compared with the standardized tubes. The author believes that the oxidizing substances disturbing the indican reaction that are often found in the urine are **developed after the urine has passed the kidney epithelium**. He refers to a case of unilateral pyelitis in which a pure-red reaction was obtained on the normal side and a bluish, unsatisfactory reaction on the other. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

September 23, 1902. (No. 38.)

1. The Pathology of Abdominal Typhoid. SCHOTTMUELLER.
2. Traumatic Rupture of the Right Valve of the Aorta. M. SCHMIDT.
3. Traumatic Nephritis. H. CURSCHMANN.
4. Traumatic Pneumonia. O. SCHILD.
5. The Bacillus of Malignant Edema. (The *Vibrio Septique*.) R. GRASSBURGER and A. SCHATTENFROH.
6. The Extension Bandage According to Heusner. H. WUELFING.
7. Anterior Luxation of the Tibia. BRUENING.
8. A Simple Method for the Determination of the Albumins in the Blood for Clinical Purposes. A. JOLLES.
9. Acute Closure of the Esophagus in a Five-Year-Old Child. J. KILLIAN.
10. Two Cases of Foreign Body in the Uterus. E. TOFF.
11. A Case of Habitual Misuse of Digitalis. C. SCHUBERT.
12. The Relations Between the Body Movements, the Body Warmth and Albumins to One Another, and to Fever in the Course of Phthisis. A. OTT.
13. Memoir of Karl Gerhardt. F. MARTIUS.

1.—Schottmüller has investigated the blood in 119 cases of **typhoid fever** and found the typhoid bacillus present 98 times, that is, in 84% of the cases. This is an evidence of the high diagnostic value of blood investigations. The method is as follows: A bandage is placed around the arm causing distension of the veins; the skin over one of these is cleansed with ether, the needle thrust through the skin into the vein, the body of the hypodermic filled with blood, and the small puncture covered with zinc plaster. In no cases have any disagreeable results ensued. The needle should be rather large with ample caliber. The blood is then distributed in liquid agar tubes, 2 or 3 cc.

for each cc. of agar. After thoroughly mixing, plates are poured, and kept in the incubator and examined every day. The typhoid colonies appear as deep-green, black points in the interior of the nutrient media. Those on the surface may grow even larger than those in the depths. The presence of the colonies and the fact that the micro-organisms are motile is sufficient to establish the diagnosis. In only one case was it possible to repeat the investigation, which, perhaps, accounts for some of the failures. The earliest case in which it was possible to make examination was on the second day of the disease, and the result was positive. In several cases it was possible to make the investigation during the first 24 hours of the relapse, and the results were positive, indicating that, perhaps, even on the first day of the disease the typhoid bacillus might be found. In several cases transient elevations of the temperature during convalescence were found to be associated with germs in the blood. Some interesting facts regarding the growth of the bacteria are that colonies rarely appear before the second day, and increase in number up to the fifth day, and the number of colonies per cmm. of blood was considerable. In one case 750 were found on the thirty-third day. In many cases typhoid bacilli were recognized before the Widal reaction was positive. He believes that these investigations alter our idea of the pathology of the disease in that they show, through the entire course of the fever, that bacilli circulate in considerable number in the blood. This explains the occurrence of the roseola and inflammatory areas in the bone marrow. Post mortem or shortly before death there is sometimes a very considerable increase in the number of germs per cmm. of blood.

[J. S.]

2.—Schmidt reports the examination of a heart obtained from a man who fell from the second story to the pavement and was killed. He was 85 years of age, and there was evidence that death had occurred at once. There were ruptures in the aortic and mitral valves which apparently can only be explained by the assumption of excessive cardiac action or direct violence to the thorax, there being several fractures including one of the body of the third vertebra. [J. S.]

3.—Curschmann reports the case of a man who was severely injured by being whirled around in a windlass. He was profoundly shocked, and in the region of the right kidney there was a large tumor. At first there was anuria; later small quantities of urine were passed. The urine contained albumin, and this persisted as long as the man was under observation. The patient was also profoundly neurasthenic. There seems to be little doubt that in this case there was some injury to the kidney that produced a permanent nephritis. The literature on this subject is still too scanty to enable us to reach any positive conclusions.

[J. S.]

4.—Schild reports the case of a man, 64 years of age, who fell upon the pavement, striking his right side. This pained him severely, and 2 days later he was admitted to the hospital with typical croupous pneumonia. He died, and the autopsy confirmed the diagnosis. There was no sign of injury to the thorax. [J. S.]

5.—Grassburger and Schattenfroh describe the bacillus of malignant edema. It occurs in the form of rods, threads and clostridium. The organisms contain numerous granules that with iodine stain a blue-black or, more frequently, reddish-brown. It is strictly anaerobic, shows slight or active motion; grows easily at 20° on the ordinary culture media; liquefies gelatine, on agar never has smooth edges; produces putrefaction and fermentation, although it cannot liquefy coagulated albumin. It ferments particularly dextrose; it coagulates milk without subsequently dissolving the coagulum; it forms gas; gives a characteristic growth upon ox-blood serum, forming much gas and giving rise to a peculiar urinous odor. It forms

soluble toxins; is pathogenic for guinea-pigs, and in many respects resembles the bacillus of butyric acid fermentation, although morphologically it differs from it, and is capable of dissolving coagulated albumin. Its action is not prevented by the action of the antitoxic serum of symptomatic anthrax. [J. S.]

6.—Wülfig describes the following method of applying extension to a limb. The skin is first carefully spread with the following mixture:

Castor oil	3
Damrra resin and colophonium	āā 10
Turpentine	1
Ether, alcohol and oil of turpentine	āā 55

The solution is then carefully filtered. It is somewhat difficult to obtain a nonirritating mixture. This solution is then spread carefully over the whole limb and the extension apparatus applied and fastened with a gauze bandage. The apparatus can remain in position for months at a time without causing irritation of the leg. [J. S.]

7.—Brüning collects several cases of anterior luxation of the tibia from the literature, and reports a case in which the injury was produced by the kick of a horse. The temperature was characteristic, the X-ray picture showed the tibia thrust forward on the femur. There was a loss of sensation and pulsation in the foot; subsequently gangrene occurred requiring an operation. This form of injury occurs almost exclusively in men, 104 cases having been hitherto reported. In 98 of these cases amputation was required 16 times. Fifteen of the 104 patients died, 4 of injuries, one of delirium tremens, one of carbolic acid poisoning, 7 from sepsis and 2 of unknown causes. The prognosis depends partly upon the time that has elapsed after the injury before reposition is attempted. Reposition is usually easy in recent cases, and in those cases with favorable termination the functional result is usually good. [J. S.]

8.—Jolles has devised a method for estimating the quantity of albumin in the blood, which depends upon the liberation of the nitrogenous gas. He finds that the amount of nitrogen that can be liberated in this form varies between 79.9% and 81.3%. The method is as follows: Two cc. of blood are obtained from the finger in a capillary tube. This is then mixed with 100 cc. of distilled water, 1 cc. of concentrated sulphuric acid (specific gravity 1.84) added, the solution moderately cooked, permanganate solution added from a glass burette, the solution containing 8 gm. to the liter. Portions of 2 or 3 cc. at a time are added to the cooked portion, care being taken that the volume of the liquid should not diminish below 50 cc. A brownish precipitate forms which redissolves after about a half hour cooking. When resolution no longer occurs, the process is ended. The quantity of fluid in the beaker is then reduced to 25 cc., the liquid cooled, neutralized with sodium nitrate until a weak alkaline reaction is present. The hypomoprotometer is then employed and consists of a "U" shaped tube closed at one end by a perforated rubber stopper, and having in the bottom of the other tube a small opening, which is closed by a stopcock. There is also a small bottle closed by a rubber cork and containing a small vessel in which the bromide solution may be placed. The U-shaped tube is then filled with water connected with a large bottle at one end and at the other end with a long rubber-tube, and the evolution of gas commences. From time to time the columns of water in the two tubes are made equal by opening the stopcock in the further one. The quantity of nitrogen eliminated can then be read and multiplied by the factor which is usually 7.26. The results of the investigations are given as estimated by the Kehldahl and by this method. They are remarkably constant. There is considerable advantage in measuring carefully the quantity of the permanganate solution that has been employed. In a series of cases in which this method was employed it was found that in diabetes, cirrhosis of

the liver, catarrhal jaundice, anemia and leukemia the albumin was reduced. In syphilis and Basedow's disease it was normal; in acute nephritis and in a case of influenza during fever it was increased. [J. S.]

9.—Killian reports the case of a boy of 5 years, who, at the age of 2½ years, had swallowed some caustic. It had always been difficult to feed him, and 2 days before coming under observation the esophagus had apparently closed completely. This seemed to follow a hasty meal of veal. Examination showed that there was some obstruction 20 cm. from the teeth. Investigation revealed a whitish mass, probably the veal that had been swallowed. This was removed piecemeal with the esophageal forceps, and finally the esophagus entirely cleared. Careful inspection failed to reveal any stricture. The case is an illustration of the value of esophagoscopy. [J. S.]

10.—The first patient, a woman of 31, had suffered from pain in the uterus for about a year. At this time she had been curetted. In the discharge threads were found which proved to be cotton, and investigation showed that a tampon had been forgotten in the uterus. The second patient, a woman of 27, in the fourth month of pregnancy had severe pains in the uterus. In the course of the exploration a stick of wood about 5 cm. long was found. This was a piece of helleborus niger, a wood frequently used in Roumania for the purpose of producing abortion. [J. S.]

11.—Schubert reports the case of a man who had valvular defect of the heart. He improved on digitalis and after passing from medical observation continued to employ this drug. This failed to control the condition, and the patient died. The doses that were employed toward the latter part of his life were enormous. It was estimated that in the course of 5 years he consumed between 500 and 600 gm. of the drug. [J. S.]

12.—Ott criticises the results obtained by Schroeder, stating that positive results are always more valuable than negative ones, and that these results are directly contrary to his own. [J. S.]

13.—Karl Gerhardt was born in 1833. He studied at Würzburg, graduated in 1856; became Privat Dozent in 1860, and was made Professor and Director of the medical clinic at Jena in 1861. In 1872 he was appointed to the same position in Würzburg, and in 1885 was called to Berlin. He was a severe chief, insisting that his assistants do their work thoroughly. Those who succeeded in passing through his service, however, were always recognized as capable physicians. Nevertheless, he interfered but little with his assistants and lost entire interest in them when they failed to produce any valuable work. His conscientious work, however, soon raised him to the highest position as consultant in Berlin, and his accurate diagnosis in the case of the Emperor Frederick the Third is still remembered. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

October 13, 1902. (39 Jahrgang, No. 41.)

The Technique of Counting the Leukocytes.

ROBERT BREUER.

Scleroderma. A. BUSCHKE.

Lactophenin in 450 Cases of Typhoid Fever.

C. F. von SCHULER.

The Causes of Primary Glaucoma.

GEORG LEVINSOHN.

1.—Breuer, after describing the methods in common use for counting leukocytes, describes a new apparatus devised by himself. The glass slide contains a larger square than all other similar devices, 9 mm. square instead of 1 mm., composed of 9 small squares, measuring 1 mm. in either direction, in 3 rows of 3 each. The whole field is divided by 9 horizontal lines, ¼ mm. apart, making 36 oblong spaces, ¼ by 1 mm. The number of leukocytes, from 15

to 25, are then counted in these spaces. As a rule, 3 such spaces can be seen in the field of the microscope. As many as 40 leukocytes are easily counted in one space, giving a leukocytosis of 16,000 to the cmm. When this is higher, the blood should be diluted. Breuer uses a 1% solution of acetic acid, to which gentian violet has been added, as the diluent. The differentiation of the rarer forms of the leukocytes is also possible by using the new Breuer slide. [M. O.]

2.—Buschke reports the case-history of a man of 46, with scleroderma of the neck, face, head shoulders, thorax, arms, hands, fingers and gluteal regions, following influenza. The skin became so hard that breathing was difficult. On examination it was found indurated, swollen and unyielding. There was some pain on pressure. Under massage the condition gradually disappeared. While acute in origin, this attack of scleroderma lasted 2 years. The bloodvessels and lymphvessels were probably influenced by the influenza. [M. O.]

3.—In an epidemic of typhoid fever, when it was impossible to procure water for baths, von Schuler gave lactophenin, in one gram doses three times a day. The temperature fell, and marked nervous symptoms failed to appear or disappeared. Pain, however, often remained in the extremities in spite of lactophenin. Its effect on the gastrointestinal tract was also good. The details of the case-histories, course, complications and treatment follow, showing the value of lactophenin in typhoid fever. [M. O.]

4.—Will be abstracted when concluded.

WIENER KLINISCHE WOCHENSCHRIFT.

October 9, 1902. (XV. Jahrgang, No. 41.)

1. A Scarlet Fever Streptococcus Serum. PAUL MOSER.
2. The Diagnosis and Frequency of Congenital Inguinal Hernia. SEVERIN GOLDNER.
3. Brachydactylia. JULIUS STERNBERG.
4. Recurrent Laryngeal Paralysis with Mitral Stenosis. LUDWIG HOFBAUER.
5. Some Cases of Traumatic Abscess of the Nasal Septum. FRIEDRICH RODE.

1.—Treated editorially November 8, 1902, page 651.

2.—When there is an intimate internal relation between the hernial sac and the round ligament, the hernia is surely congenital. A congenital inguinal hernia consists of the thin aponeurosis of the external oblique muscle, unbroken cremasteric fibers, the spermatic cord in varying position, subserous lipoma, the hernial sac and its contents. Out of 800 radical operations performed, 45 contained subserous lipomata, 34 with other signs that hernia was congenital. When bilateral hernia exists, that on one side alone may be congenital. Out of 701 unincarcerated herniæ in men, 322 were found to be congenital; out of 71 herniæ in women, 40 were congenital. Details and statistics follow. [M. O.]

3.—Sternberg reports the case-histories of 2 patients with brachydactylia, a woman of 24, with symmetrical shortening of both middle fingers, due to short third metacarpal bones, and a woman, aged 68 years, with shortening of the fifth metacarpal bone of the right hand. Only 9 such cases were found in the literature. As the hands in the first case were normal at birth, the deformity probably occurred after traumatism in childhood, causing absolute separation of the epiphyses of the third metacarpal bones. [M. O.]

4.—Hofbauer reports the case-history of a man of 32, with left recurrent laryngeal paralysis, which had existed for 2 months only. He had an old mitral stenosis. His symptoms were a peculiar feeling of pressure in the chest, dyspnea, hoarseness and slight cyanosis. When lying on his back or right side he was decidedly less hoarse; when on his left side, or bent forward, he was very hoarse and could hardly speak. Examination showed loss of compensation of the valvular heart condition, with marked

dilatation of both auricles. This was the probable cause of the recurrent laryngeal paralysis [M. O.]

5.—Rode reports 5 cases of abscess of the nasal septum, generally due to traumatism. The treatment is incision and evacuation of the abscess. Recovery follows rapidly. Many details are given. [M. O.]

MEDICINSKOIE OBOSRENIE.

1902. Vol. LVII., No. 9.

1. Perityphlitis in the Pregnant. M. IV. ROSTOVTSSEFF.
2. A Case of Idiopathic Acquired Atrophy of the Skin.
N. N. PISMENNY.
3. The Treatment of Elephantiasis with Calomel.
M. TIPTSEFF.
4. Phosphorus in the Treatment of Alopecia.
V. A. BIALOBZSHESKI.
5. The Derivatives of Formaldehyde in the Treatment of Intertrigo, Hyperhidrosis and Some Forms of Eczema. VIELIAMOVITCH.
6. The Southern Shore of Crimea, Its Climate and the Role it Plays in the Treatment of Diseases of Children. S. A. VASILIEFF.
7. On the Question of the Nucleus and the Motion of the Bloodplates. G. V. VLASOFF and E. K. SEPP.

1.—Rostovtseff discusses the co-existence of perityphlitis and pregnancy. He reports the following cases: Case 1. A multipara, 35 years old, developed perityphlitis 8 days after successful treatment for a miscarriage. Suppuration ensued, and an operation was performed which resulted in recovery. Case 2. A woman, 30 years old, developed perityphlitis in the eighth month of pregnancy. A laparotomy was performed and a circumscribed abscess evacuated. The patient recovered and was delivered at term. Case 3. A woman, 19 years old, developed appendicitis on the third day after delivery. Laparotomy performed 5 days later. An abscess was evacuated and the appendix removed. The patient made an uninterrupted recovery. Case 4. A multipara, 46 years old, had an attack of perityphlitis 3 weeks prior to delivery. During the week following she suffered from constipation and on the second week developed another attack. An exploratory incision was made over Poupart's ligament reaching as far as the transversalis fascia; a hypodermic needle was introduced into the swelling, but with negative results. The operation was abandoned. The patient was gradually getting worse when, 3 weeks later, an abscess broke through the scar, the pus discharged possessing a fecal odor. This was followed by recovery. Case 5. A woman, 29 years old, supposedly 9 weeks pregnant, developed appendicitis from which she recovered after the usual treatment. Case 6. A multipara, 43 years old, 6½ months pregnant, developed appendicitis from which she recovered. In both cases the diagnosis was established from clinical symptoms and by exclusion. In patients 7, 8, 9 and 10 appendicitis developed during the earlier months of pregnancy and terminated fatally as a result of generalized peritonitis. The author shows that, while the effect of appendicitis on the course and termination of pregnancy is not very favorable, it is not sufficiently grave to justify recourse to premature delivery or abortion. [A. R.]

2.—Pismenny reports a case of idiopathic acquired atrophy of the skin in a woman, 70 years old. The disease commenced 30 years ago, following some acute infection. The atrophy was localized on the arms, legs, scalp, nose and breasts. The subcutaneous layer in the affected areas was entirely absent, the skin having the appearance of tissue paper through which the muscular tissue and superficial bloodvessels could be plainly seen. [A. R.]

3.—Tiptseff obtained marked success from hypodermic injections of calomel in a case of elephantiasis in a woman, 39 years old. Although the patient developed symptoms of syphilis, yet the latter occurred after the appearance of elephantiasis. The author concludes that intermuscular injections of calomel have a beneficial effect on elephantiasis, but they must be continued for a considerable time, with frequent interruptions. [A. R.]

4.—Bialobzsheski claims marked success in the treat-

ment of alopecia areata by means of phosphorus employed in the following combination:

Phosphorus,	0.06 gm.
Dissolve in olive oil and add	
Arsenous acid,	0.1 gm.
Licorice powder, enough to make 120 pills.	
S. One to four pills a day.	

The author explains the beneficial effect of phosphorus by the supposition that the disease is a neurosis. [A. R.]

5.—Vieliamovitch discusses the therapeutic effects of formaldehyde and its derivatives in various affections of the skin. Tannoform, he claims, is indispensable in the treatment of intertrigo in children. He employs a powder composed of one part of tannoform to 4-5 parts of talc or starch (sometimes, with the addition of zinc oxide and bismuth subnitrate). The affected places are powdered 4 times a day and covered with hygroscopic cotton. Washing, except the daily bath, is unnecessary. Recovery takes place in a few days. No less effective is tannoform powder (with oxide of zinc and boracic acid) in the treatment of moist eczema. In intertrigo of the feet accompanied with interdigital eczema, met with in its worse form in soldiers, tannoform has a curative effect. The author also employed formaldehyde and urotropin in these cases with good results. The former was found objectionable on account of the pain which it causes; the latter proved a useful substitute, but inferior to tannoform. It was used in the following combination: Urotropin, boracic acid and tannalbin, equal parts. In sweating of the feet, the use of chromic acid, while efficient, is considered by the author objectionable on account of its poisonous nature and the staining of the skin and underwear. In this affection formaldehyde possesses all the advantages without the objectionable features of chromic acid. A single application of either strong or diluted formaldehyde by means of a brush will bring about permanent relief. It is also well to sprinkle some formalin on the inner side of the soles of the shoes. For the illsmelling perspiration of the axillæ the author recommends washing with water containing 10-14 drops of formalin to the glass. Formalin should also be useful as a wash in the treatment of general hyperhidrosis, in dilutions of 5 drops to 2-3 glass of water. In the form of an antiseptic pad placed over the area to be operated on, formalin appears to be ideal; while in strong solution it is an excellent application for indolent, dirty and infected ulcers. [A. R.]

7.—Vlasoff and Sepp repeated the observations made by Deetjen who claimed to have demonstrated ameboid movement and nuclei in the bloodplates. They employed the same methods, but failed to substantiate his claim. The bloodplates, they believe, are derived from dead and disintegrating red bloodcells. They possess no independent motion nor any nuclear formations. [A. R.]

BOLNITCHNAIA GAZETA BOTKINA.

1902. (Vol. XIII., No. 19.)

1. On Penetrating Punctured-Incised Wounds of the Thorax. B. K. FINKELSTEIN.
2. The Subsequent Influence on the Organism of Extirpation of One Kidney. L. A. SOBOLEFF.
3. The Village Infant Asylums in the Government of Voronege During the Summer of 1901.
V. P. OUSPENSKI.

1.—Will be abstracted when concluded.

2.—Will be abstracted when concluded.

1902. (Vol. XIII., No. 20.)

1. Casuistics From the Supervision of the Ophthalmological Expedition of 1901. A. S. TCHEMOLOSOFF.
2. On the Normal Distribution of Medical Districts.
A. P. VOSKRESENSKI.
3. The Subsequent Influence on the Organism of Extirpation of One Kidney. L. A. SOBOLEFF.

3.—Soboleff concludes from an exhaustive investigation of the effect of ablation of one kidney that unilateral nephrectomy, like ligation of one ureter or the renal artery, produces hypertrophy of the heart. The hypertrophy is the result of a nephritis which is at first parenchymatous

but finally becomes interstitial (glomerulonephritis). There occurs principally a thickening of the fibers of the cardiac muscle. The hyperplasia of the muscle fibers, which takes place in the commencement of the process as well as the increase of connective tissue, plays a secondary role in the production of hypertrophy. The existence of nephritis after the operation is proved by a histological examination of the remaining kidney as well as by the changes that take place in the urine. Concerning the direct cause of cardiac hypertrophy, it is necessary to accept the chemical theory as more nearly explaining the character of the changes in the organism which take place as a result of nephritis. Traube's theory is incorrect even in its fundamental principles, and is at present refuted by clinicians and pathologists. The manifestations observed in the cardiac muscle and ganglia can neither be explained by the mechanical theory, owing to the intensity and rapidity of their development. [A. R.]

May 22, 1902. (Vol. XIII., No. 21.)

1. Spontaneous Rupture of the Heart.
B. P. RUTCHINSKI.
2. On Penetrating Punctured-Incised Wounds of the Chest.
B. K. FINKELSTEIN.
3. The Village Infant Asylums in the Government of Voronege During the Summer of 1891.
V. P. OUSPENSKI.

- 1.—Will be abstracted when concluded.
- 2.—Will be abstracted when concluded.

May 29, 1902. (Vol. XIII., No. 22.)

1. On the Question of the Causes of the Increase of Osmotic Stability of the Red Bloodcorpuscles in Some Pathological Processes. G. F. LANG.
2. On Penetrating Punctured-Incised Wounds of the Chest.
B. K. FINKELSTEIN.
3. Spontaneous Rupture of the Heart.
B. P. RUTCHINSKI.
4. On the Normal Distribution of Medical Districts.
A. P. VOSKRESENSKI.

1.—Lang concludes from his observations that the increased osmotic stability of the erythrocytes in the course of infectious diseases does not depend on the destruction of the less stable corpuscles nor on the appearance in the blood of corpuscles of greater stability, but the stability of all the erythrocytes in the blood is heightened. This increase in stability is determined by the circulating toxins which act hemolytically and excite a reaction. [A. R.]

- 2.—Will be abstracted when concluded.

3.—Rutchinski reports a case of spontaneous rupture of the heart in a woman, 50 years old, who suffered from cardiac insufficiency. The autopsy revealed, among other things, fatty degeneration of the heart and thrombosis of the left coronary artery. The author reports another case of fatty degeneration and thrombosis of the heart, which terminated fatally without any rupture, the latter having been forestalled simply by the weakness of the heart which could not contract enough to rupture the thinned-out myocardium. The 173 cases of rupture of the heart reported by various authors are discussed. [A. R.]

June 5, 1902. (Vol. XIII., No. 23.)

1. Transportable School Museums as an Aid to the Zemski Physicians in Their Effort to Disseminate Among the People Knowledge of Natural Science and Hygiene. F. L. KASTORSKI.
2. On Penetrating Punctured-Incised Wounds of the Chest. B. K. FINKELSTEIN.
3. The Village Infant Asylums in the Government of Voronege During the Summer of 1901.
V. P. OUSPENSKI.

1.—Kastorski recommends the institution of transportable museums for the use of public schools as indispensable aids in the teaching of natural sciences and hygiene. He cites instances of successful operation of such museums at a comparatively small outlay and describes the necessary equipment. [A. R.]

- 2.—Will be abstracted when concluded.

LA RIFORMA MEDICA.

October 16, 17, 18 and 20, 1902.

1. Concerning the Influence of the Micrococcus Tetragnus Upon the Tuberculous Process in the Lungs.

A. MICHELAZZI.

1.—From a series of bacteriological and experimental studies, supplemented by histological examinations, Michelazzi draws the following conclusions: (1) The micrococcus tetragnus inhibits the development of the bacillus tuberculosis. (2) Previous inoculation of the micrococcus tetragnus into susceptible animals not only inhibits the development of the tuberculous process in the lung, but prevents its propagation in other organs. (3) Such inhibition does not occur if tetragnus infection is preceded by tuberculous infection of the lung; in which case, the bacilli of tuberculosis, already multiplied and virulent, induce local specific lesions as well as lesions remote from the site of initial infection. (4) Lesions produced by the micrococcus tetragnus in the lungs of guinea-pigs are identical with the type of tubercular lesions in the human lung; (cavities, tubercular pneumonitis, etc.) and many of such lesions in man may be ascribed to the action of the micrococcus tetragnus. [R. L. F.]

October 21, 1902.

1. Upon the Effect of Temporary Ischemia of the Parathyroid Glands. C. PINTO.

1.—This question has been studied experimentally by Pinto through temporary compression of the efferent and afferent vessels of the parathyroids in dogs. Ischemia, thus maintained from 90 minutes to 6 hours induced depression and hyperthermia. When prolonged to 16 hours, these symptoms were increased in severity, and to them were added conjunctivitis, polyuria, tremor and muscular twitchings. If ischemia was prolonged from 16 to 31 hours, true tetanic symptoms, cachexia or both were induced, conditions sometimes noted after parathyroidectomy. The chief histological change seen upon examination of parathyroids, so treated, was degeneration of the epithelial tissue. From the work done, it is concluded that the parathyroids are less resistant than the thyroids, as evidenced by the earlier appearance of clinical symptoms and degenerative changes under abnormal conditions. [R. L. F.]

October 22, 1902.

1. Upon Suprarenal Glycosuria; Direct Investigation of its Production in the Human Organism. S. BARBA.

1.—In line with the experimental production of glycosuria by Blum, Zuelzer, Herter and Richards through endogenous, subcutaneous and endoperitoneal injection of suprarenal extract in animals, is the work of Barba, who has studied the question through hypodermic injections of the extract in man; the subjects chosen for the experiments being patients affected with Addison's disease, tabes and bulbar asthenia. The conclusion drawn from the work is, that hypodermic injections of the extract of the suprarenal capsules do not induce, in the human subject with normal suprarenal capsules, or in those affected with Addison's disease, the glycosuria produced in animals by the above-named investigators. The effects produced by such injections were limited, in Addison's disease, to an aggravation of the general condition; and in tabes and bulbar asthenia to general improvement and increased diuresis. [R. L. F.]

October 23, 24 and 25, 1902.

1. Histological Observations Upon Infective Granulomata. T. SECCHI.

1.—Secchi reviews the literature bearing upon leprous granulomata and states that the consensus of opinion makes swelling and vacuolization, together with the extraordinary number of bacilli, the characteristics of the granulomata of leprosy. The following conclusions are drawn from his study of the subject: (1) In leprous granulomata the swelling and vacuolization are of parasitic origin and are to be considered as degenerative processes. (2) This degeneration may be regarded as muco-aqueous, since it presents the metachromatic feature of mucin. (3) The pro-

duction of this substance and the formation of vacuoles cannot be considered as purely physical phenomena nor as due to intracellular digestion; but are the result of the action and secretion of the bacilli of leprosy. (4) Like other bacteria, the bacillus of leprosy exercises an irritative influence upon the hypertrophy and hyperplasia of the connective tissue cells; and a necrobiotic action, which manifests itself in swelling and vacuolization of the cells, sometimes associated with caseous degeneration and formation of tuberculoid foci. (5) Hence the differences between the action of the bacillus of tuberculosis and that of leprosy are as follows: Both exercise a necrobiotic and neoformative action; the bacillus of tuberculosis generally causing caseous degeneration and the bacillus of leprosy vacuolization. Both induce hypertrophy of the cells, but the giant cells of Langhans, a common product of the tubercle bacillus, are rare in leprosy. Both induce development of epithelioid cells, but the bacillus of tuberculosis has a special inflammatory action which is expressed in the formation of lymphoid tubercles, which the bacillus of leprosy does not produce. (6) The pathogenesis of leprosy is almost identical with that of tuberculous granulomata. During the febrile period the bacilli are found in the capillaries, where they exercise a proliferative influence upon the endothelium, thence passing through their walls and exercising the same effect upon the surrounding connective tissue. Almost simultaneously with this process they penetrate numerous cells, there multiplying and forming the leprosy cells. From these, which may be considered as the centers of the foci, the bacilli migrate to the interstices and lymphatic lacunæ, continually multiplying and exercising a neoplastic influence. Leukocytes may also migrate from the vessels, but in small numbers and for a short time only, as the connective tissue neoformation assumes the ascendancy, and in this process the walls of the vessels themselves play an important part. (7) Therefore, the fundamental mass of the leprosy granulomata is made up of connective tissue, which often takes on an epithelioid appearance. Lymphocytes and plasma cells are rare; hence leprosy granulomata belong to the epithelioid class. [R. L. F.]

October 26 and 27, 1902.

1. Exudates and Transudates. A. JARDINI.

1.—Jardini discusses the cytological formula of pleuritic effusions, ascites and hydrocele. As to the belief that preponderance of lymphocytes is pathognomonic of tuberculous effusions, he maintains that the greater part of the so-called lymphocytes are in reality pseudolymphocytes resulting from altered endothelial and polymorphonuclear cells. As pseudolymphocytosis is seen almost constantly in primary pleuritis and as, in the majority of cases, these have been demonstrated to be tuberculous, by means of the tuberculin test, lymphocytosis may be regarded as a symptom, but not a proof of tuberculous pleuritis; but possible sources of error must be taken into account, namely: (a) The age of the exudate; polymorphonuclear and endothelial cells being found in the early stage; (b) the rare occurrence of pseudolymphocytosis independent of tuberculosis, as in leukemia, etc.; (c) neighboring caseous foci which alter the formula. A characteristic of effusions due to mechanical causes is the association of lymphocytosis with abundant endothelial cells, isolated or in plaques. Preponderance of polymorphonuclear cells is of decided value in establishing the existence of an acute process to which the organism is reacting; but this characteristic cannot be considered as peculiar to pleuritic infection, as it may depend upon carcinoma, toxic influences, etc. (Uremia.) In special cases cytodiagnosis may give valuable information in diagnosing the development of pleuritis in cardiac subjects, distinguishing toxic pleuritis in nephritics, etc. Concerning the formula in ascites the author has this to say: As a preponderance of lymphocytes is not so regular as in pleuritis, the diagnosis of a tuberculous process is more difficult in ascites than in the former condition. Preponderance of polymorphonuclears is an absolute indication of an acute process, but it is to be borne in

mind that portal stasis is accompanied by inflammatory phenomena and that polynucleosis exists in cancerous affections. Fluids resulting from general or portal stasis are to be distinguished by the relative abundance of endothelial elements compared to the polymorphonuclears. Of the cerebrospinal fluid, Jardini says that lymphocytosis is fundamentally the expression of chronic irritation of the meninges, but it serves little in pathological diagnosis, from the fact that the meninges are the site of so many chronic processes. Polynucleosis always indicates an acute process. With reference to hydrocele, polymorphonuclear cells are believed to predominate in the blenorrhagic forms, and lymphocytes in the tuberculous. In hemorrhagic effusions cytodiagnosis is of but little value, as polymorphonuclears and lymphocytes from the blood alter the formula. [R. L. F.]

REVISTA MEDICA CUBANA.

November 1, 1902.

1. Fracture of the Cranium. Intervention. Cure.

E. FORTUN.

2. A Few Points Concerning Adrenalin. E. LOPEZ.

1.—Fortún contributes the description of a case of extensive fracture of the cranium; the successful treatment of which he makes the basis of an argument in favor of conservative cranial surgery. The author holds that the practice of extensive resection of bones which present fissures radiating from the principal focus of the fracture is unjustifiable in those cases in which there is no evidence of pressure; he limits operative interference to removal of the loose fragments, on the theory that the cranial bones cicatrize as well as the other tissues of the body; and further, that absence of the bony covering may sooner or later give rise to epileptic phenomena. [R. L. F.]

2.—From the use of this substance in a wide range of ocular affections, Lopez finds that adrenalin is a powerful remedy, the essential effect of which is hemostasis through constriction of the bloodvessels. Instillation into the eye in cases of injected conjunctiva, of one drop of a 1:1000 solution of adrenalin chloride at once restores the eye to its normal appearance. In congestive affections of the eye, Lopez orders an eyewash of adrenalin chloride in the proportion of 1:5000, to be used 4 times daily; or, in more intense cases, the strength is increased to 1:2000. The doctor has used adrenalin in operations for pterigium, small palpebral tumors, iridectomy for glaucoma and enucleation of the eye, with surprisingly good results; hemorrhage being reduced to a minimum through its application. It is said to be painless and inoffensive when applied to the mucosa. [R. L. F.]

THE JOURNAL OF PATHOLOGY AND BACTERIOLOGY. September, 1902. (Vol. VIII., No. 3.)

1. A Successful Attempt to Cultivate the Bacillus Leprosus. G. van HOUTUM.
2. The Effect of Injecting Micro-organisms into the Portal System on the Sterility of the Bile in the Gall-Bladder. E. S. CARMICHAEL.
3. The Action of the Bacillus Coli Communis on the Distribution of Nitrogen in the Urine. D. N. PATON.
4. The Elimination of CO₂ in Certain Metabolic Disorders (Preliminary Note). I. W. HALL.
5. Further Observations on the Thyroid Gland. W. EDMUNDS.
6. The Anatomical Findings in the Hypoplastic Genitals From Two True Female Dwarfs. W. H. WEIR.
7. Myasthenia Gravis. S. S. MYERS.
8. A Critical Review of Recent Work on the Etiology and Pathology of Dysentery. S. AMOS.
9. A New Method of Mounting Museum Specimens. H. LITTLEJOHN.
10. Rudolph Ludwig Karl Virchow.

1.—van Houtum isolated from leprosy nodules a bacillus which could be cultivated on fish broth, glycerine, glucose and ordinary beef agar. The bacilli, somewhat thicker than Hansen's, stained with alkaline methylene blue after prolonged contact and very well with diluted carbol-fuchsin; they were decolorized by the Gram and the Ziehl-Neelsen method.

The colonies on agar are, after 24 hours, spherical, with a sharply defined border, yellowish-brown and finely granular; they become more irregular on the third day. On gelatine the colonies are irregular, the medium becoming gradually liquefied. The proof that these are the lepra bacilli the author sees in the fact that they show the Pfeiffer-Bordet reaction when mixed with serum from lepers. The author's conclusions are: (1) He has cultivated from leprous tissue a bacillus that differs from Hansen's bacilli in staining reactions and in size. This leprous tissue contained numerous lepra bacilli apparently in a pure state. (2) These bacilli, mixed with diluted human serum, show the Pfeiffer-Bordet reaction *in vitro*. Leper serum reacts much more markedly than nonleper serum. (3) The reaction of leper serum is brought about by the concurrence of 2 substances, or sets of substances, present in leper serum, namely, the sensibilizer and the alexins. (4) This sensibilizer, which attaches itself to the described bacilli, only occurs in leper serum. (5) Experimental researches of Pfeiffer, Bordet, Metchnikoff, Ehrlich and Morgenroth and others have proved: (a) That the sensibilizer is a specific substance; (b) that there exists a causal connection between micro-organisms or cells and their sensibilizers, and (c) that the occurrence of a sensibilizer is a general law in immune serums. (6) The bacilli that he has cultivated and described are true morbid agents of leprosy, because leper serum, and leper serum alone, contains a sensibilizing substance for them. The susceptibility of lepra bacilli to the action of leper serum, even in weak dilutions, gives a plausible explanation of the numerous failures to cultivate these bacilli. [A. R.]

2.—Carmichael found by experiments on animals that the bile cannot be infected by injecting micro-organisms into the portal circulation. He therefore concludes that the infection of the bile from the gastro-intestinal tract does not take place from the portal vein and liver, and that there are only 2 methods of infection of the gall-bladder, either by direct extension from the intestinal tract, or by infection through the general circulation to the cystic artery. The possibility of the latter mode of infection is disproved by the observations of Sherrington. [A. R.]

3.—Paton found that the bacillus coli, when cultivated in sterile urine, has no effect on the distribution of the nitrogen of the urine in urea, ammonia and nonurea compounds. On the other hand, the bacillus fluorescens liquefaciens rarely decomposes urea into ammonia. [A. R.]

4.—Hall found by experiments on himself and others that the introduction into a healthy body of large quantities of metabolic products, representing an excess of imperfectly metabolized substances in the blood, neither depresses nor increases the normal elimination of CO₂. The "metabolites" cause, however, increased activity of those metabolic organs, which complete the processes necessary for their early excretion. It is possible that an excess of uric acid may at first indirectly increase the output of CO₂, but it is probable that carbohydrate metabolism is not affected in the early stages of imperfect metabolism. The author calls attention to the fact that, if caffeine is employed as a cardiac stimulant or with the view to promote CO₂ elimination, extra work is thrown upon the tissues to ensure its elimination. For its diuretic effect it might be advantageously replaced by urea. [A. R.]

5.—Edmunds makes a further report on his experiments on thyroid-feeding and excision of the thyroid and parathyroid. Incidentally he brings out the fact that the cervical sympathetic is not the sole or even the main factor in exophthalmos, and that too much therefore must not be expected from operations on the sympathetic in Graves's disease for the relief of the eye symptoms. His experiments on dogs show: (1) That after complete excision of the thyroids and parathyroids the great majority of the animals die within a few days and cannot be saved by thyroid feeding. (2) If one or more parathyroids are left, the dogs, as a rule, survive. (3) When only the thyroid proper is left, they die, as a rule. (4) That after operations intended to paralyze the secretory nerves (if any) to the thyroid, the dogs often die, although the whole of one thyroid lobe, together with the parathyroids of the same side, or even the entire thyroid system, is left. (5) As to the microscopical

appearances of the parts left after partial excision, the parathyroids seem merely to hypertrophy: they do not change into thyroid tissue proper. The thyroid tissue left may remain unaltered even though the dog dies of athyroidic symptoms; or it may materially alter in one of 2 ways, either the colloid diminishes or wholly disappears, the vesicles become enlarged, and the lining membrane convoluted, thus closely resembling, if not identical with, papilloma; or the colloid may disappear, the vesicles retain their round shape, and the secreting cells multiply into and fill the cavity of the vesicles, producing somewhat the appearance of carcinoma; but though much hypertrophy sometimes occurs, nothing of the nature of invasion has ever been observed. (6) In the central nervous system changes have been found corresponding to the paralytic symptoms; the lesions are confined mainly to the large cells, and vary from a chromatolysis of the Nissl granules to a complete destruction of the cells. The author also observed that after the removal of the parathyroids, a condition of widening of the eyes occurs. This coincides with the view that Graves's disease is in some way connected with an abnormality of the parathyroids. [A. R.]

6.—Weir gives a detailed description of the anatomical and histological findings in the genital organs of 2 true dwarfs. The condition of the uteri was that of true hypoplasia. [A. R.]

7.—Myers describes 2 cases of myasthenia gravis, both in girls, which were diagnosed and treated as hysteria, until the fatal termination and autopsy revealed the true nature of the affection. The history, general character, differential diagnosis, pathology and experimental physiology and pharmacology of the disease are given in detail; also the cases reported by others are cited. The author considers it of vital importance to differentiate the disease from hysteria, with which it is frequently confounded. It should also be differentiated from chronic bulbar paralysis, Landouzy-Dejérine's form of progressive muscular dystrophy, neuritis, Landry's paralysis, neurasthenia, chronic poliomyelitis and other forms of periodic palsy. The author considers the disease to be of toxic origin. [A. R.]

8.—Amos presents a critical review of the recent investigations concerning the etiology and pathology of dysentery. [A. R.]

9.—Littlejohn claims, as a result of several years experience, that anatomical specimens may be preserved mounted dry in hermetically sealed vessels. The specimens are treated with Kaiserling's, then soaked in pure glycerine for about a week and finally placed in jars, on cotton wool impregnated with about an ounce of glycerine, containing a few drops of formalin. The lids are sealed with putty. The specimens, it is claimed, retain their original character for years. [A. R.]

AMERICAN JOURNAL OF MEDICAL SCIENCES.

September, 1902.

1. Some Experimental and Clinical Observations Concerning States of Increased Intracranial Tension. The Mütter Lecture for 1901. H. CUSHING.
2. A Report of 92 Cases of Thermic Fever Treated at the Pennsylvania Hospital in the Summer of 1901. M. LEWIS and F. PACKARD.
3. Chronic Empyema of the Frontal, Ethmoidal and Both Sphenoidal Sinuses, With Extensive Necrosis Complicated with Adenoma of the Posterior Ethmoidal and Sphenoidal Regions. J. BRYAN.
4. Traumatic Rupture of the Choroid with Hemorrhage from the Upper Branch of the Inferior Temporal Vein. C. OLIVER.
5. Report of 3 Cases of Creeping Larvæ in the Human Skin (Hyponomoderma, Kaposi). A. VAN HARLINGEN.
6. Benign Cystic Epithelioma: Report of 2 Cases Presenting Unusual Features. M. HARTZELL.
7. Postoperative Nonseptic Leukocytosis and Other Blood Conditions. H. KING.
8. Entrance of Air into the Veins and its Treatment. M. GOODRIDGE.

9. A Case of Subpectoral Abscess. G. G. DAVIS.
10. Anomalous Position of the Common Carotid, Visible in the Pharynx. G. WOOD.
11. The Treatment of Pneumonia. R. WILCOX.
12. A Review of the Study and Treatment of Heat-Stroke at the Pennsylvania Hospital and Elsewhere, 1751-1870. J. SPELLISSY.

1.—Cushing divides the causes of intracranial tension into those conditions that produce local and those that produce general compression. It may be said that foreign bodies are the commonest cause of local compression, that is to say, such as blood clots, abnormal or circumscribed collections of fluid, or new growths. Among the causes of general compression are acute cerebral edema following injury, acute hydrocephalus, meningitis, hemorrhage into the subdural spaces, etc. The method employed for studying the effects of pressure upon the cerebral circulation consists in inserting a plate of glass into the trephine opening, holding it in place by means of 2 screws that hook under the edge of the skull. For the purpose of producing localized intracerebral pressure a small distensible rubber bag which communicates with a mercurial dynamometer is introduced into the brain. By this means not only the pressure can be determined but also the amount of mercury inside the skull causing the pressure. In order to produce general pressure a normal salt solution is allowed to enter the cerebrospinal space under pressure. There seems to be a very free communication between the cerebrospinal space and the longitudinal sinus, and from this with the right heart. Sometimes, however, if the pressure is sufficiently great, the longitudinal sinus may collapse and in this way prevent the escape of fluid. The symptoms of compression are, early venous stasis, dilatation of the vessels in the eyegrounds, and some drowsiness and stupor on the part of the animal until the pressure equals that of the blood. Medullary symptoms do not occur. When anemia supervenes, the cortex becomes blanched, there is a rise of vasomotor pressure until the cortex becomes rosy. Increase in the pressure causes a corresponding increase in the bloodpressure. This increase in bloodpressure is prevented by division of the vagi. If the spinal cord is divided just below the medulla, the only effect of increasing intracerebral pressure will be the slowing of the heart, because the vessels remain dilated. The same effects may be produced by cocainizing the medullary centers. If the intracranial pressure is very slowly increased, the bloodpressure will rise in accordance with it and no period of anemia will occur. This is presumably similar to the condition that occurs in many clinical states. Testing the bloodpressure in cases of accident with fracture of the skull and subdural hemorrhage shows that practically the same experimental phenomena are produced in human beings. In some cases the bloodpressure will equal 300 mm. of mercury. Cushing describes some very interesting cases of cerebral disease that were brought to the hospital showing various vasomotor phenomena corresponding to the cerebral conditions. In a case of brain abscess vasomotor paralysis occurred, and, although the heart continued to beat for 23 hours after voluntary respiration ceased, it was never restored. In another case, that of a boy with extensive fractures of the skull, the patient just escaped the stage of paralysis, and ultimately recovered. In another case of slowly increasing intracranial pressure as a result of a cerebellar cyst the patient suddenly passed into the stage of high pressure, the vasomotor mechanism gave way, respirations ceased and the patient died, although the heart continued to beat for some time after respiration ceased. He summarizes the results as follows: Processes involving the fore-brain may produce no serious disturbance of the body, but if the medulla is involved there is first the stage of venous stasis without definite symptoms, then capillary disturbances, venous pulse and respirations rapidly approaching the Cheyne-Stokes type. [J. S.]

2.—Lewis and Packard report their studies upon 92 cases of **thermic fever**, all of which had a temperature of over 100°. Of these cases 6 were negroes, although the majority were native American. There were 8 patients whose temperature was between 110° and 111°, 3 between 111° and 112°, and one between 112° and 113°. All the others showed a lower temperature. No patients with a maximum temperature of less than 106° died. No patient with a maximum temperature of more than 111° survived. Of 8 patients with a temperature of 110° and 111° 3 died and 5 recovered. Thirteen patients died, a mortality of 14.4%. Convulsions were observed in 14 cases. The majority of patients with high temperature were unconscious and many of those with low temperature. The pupils were sometimes dilated, sometimes contracted, and in one case there was nystagmus. In 6 cases the knee jerks were examined, and of these 5 had total absence and one marked increase. In this one case there was tonic contraction of the hands and feet, a sort of re-enforcement. In one case the knee jerks remained absent at the date of discharge, 3 days after his admission, but subsequently reappeared. In 10 cases the urine was examined during convalescence and showed albumin. One of these patients was subsequently examined and the urine found to be approximately normal. Alcoholism seems to have rendered the course always more severe; none of the milder cases gave such a history. The blood was examined in 17 cases. In 2 spectroscopic examinations were made and the hemoglobin was observed. The specific gravity was estimated in 14 cases and was abnormal in only one case in which it was 10.74. The hemoglobin was usually reduced. The red bloodcells rarely exceeded 5,000,000. The leukocytes were usually normal, but occasionally amounted to between 12,000 and 13,000. The treatment consisted in cold and the administration of stimulants if required. The best method of applying cold was apparently rubbing with ice. In those cases in which there was no decrease in the symptoms corresponding to the fall of temperature, bleeding was found to be of benefit. It was employed in 8 cases with 4 deaths. The quantity withdrawn varied from 6 to 20 ounces. Hypodermoclysis was employed in 28 cases of the severest type, and only one died. As, however, the normal saline solution entered the circulation too slowly, intravenous saline injections were used in 10 cases with 4 deaths. No infection occurred, therefore the authors conclude that in certain cases not improved by the hypodermic method, venous section and transfusion may be employed. Among the sequelæ was jaundice in one case. A number of interesting case-histories are appended. [J. S.]

3.—Bryan reports the case of a woman, 48 years of age, who had excruciating headaches. These commenced 8 years previously during convalescence from an attack of pneumonia, and since then she has had mucus-dropping into the back of the nose which in time became fetid. An examination of the nose showed extensive caries of the anterior ethmoid region. Curetting gave only temporary relief, and finally an external operation was performed, the frontal sinus was exposed and found filled with fetid pus and granular tissue. The wall was necrotic, involving the roof of the orbit. The anterior portion of the ethmoid bone was also diseased. A large portion of the necrotic bone was therefore removed, a drain introduced and the patient rapidly recovered. Later she contracted a severe cold, suppuration again occurred in the frontal sinus which required incision and the evacuation of a large quantity of pus. This suppuration persisted in spite of the free drainage. A second operation was performed, extensive **necrosis of the ethmoid bone** was found and free drainage established. She improved, but a month later was again seized with violent headaches and these persisted in spite of all efforts. Potassium iodide had no effect in checking the progress of the condition. The patient was subjected

to several operations, but relief was only temporary. Finally a growth was observed in the nose and after its removal another growth, grayish in color, was discovered springing from the ethmoid bone. This extended backward and was attached to the wall of the left sphenoidal sinus. It was found to be an adenoma, and in spite of removal it continued to recur, blocking all the sinuses and preventing drainage. The prognosis appears to be exceedingly unfavorable. [J. S.]

4.—Oliver reports a case of traumatic rupture of the choroid occurring in a man, 19 years of age, who struck his eyeball against a piece of furniture. The rupture was vertical and lay just to the outside of the macula lutea. Otherwise the eyeball was apparently uninjured. Later gross inflammatory reaction occurred in the choroid and retina. The patient finally recovered with a small eccentrically placed scotoma. [J. S.]

5.—Van Harlingen reports 3 cases of creeping larvae in the skin. One patient, a girl of 4, was brought to the hospital with a curious eruption on the foot resembling small vesicles. This was rubbed with an ointment of green soap, and rapid recovery ensued. Another patient exhibited somewhat the same symptoms in the feet. An incision at the end of the furrow caused a cure, although no parasite was found. In the third case a serpentine-like course was observed upon the hand. The parasite that gives rise to these lesions of the skin has never been demonstrated. [J. S.]

6.—Hartzell reports 2 cases of benign epithelioma, one occurring in a woman of 20, and the other in a woman of 38. These were both excised and failed to recur. Microscopically there were numerous round, oval and irregular-shaped masses in the upper and middle portion of the corium. These masses consisted of epithelial cells and often contained a cavity lined with granular debris. Sometimes the cells were arranged radially around these cavities. His own cases differed from those described in the literature, because the lesions were so distinctly circumscribed. He believes that there are probably 3 types of this disease: (1) Benign cystic epithelioma, (2) cystadenoma and (3) hemangio-endothelioma. [J. S.]

7.—As a result of a series of observations King believes that the leukocytosis of a normal wound repair may be very marked, and that there is no sudden increase in the degree of leukocytosis when sepsis occurs. In fact, at the time subsequent to operation when the results of infection are most likely to appear, leukocytosis is, as a rule, on the decline, and if instead of declining it is gradually increasing it may be presumed that infection has occurred. His observations were made by counting from 6 to 20 hours before operation, then making a leukocytic count 6 hours after operation, complete examination of the blood 24 to 30 hours after the operation, and a leukocytic count every 24 hours thereafter. In a second series in addition to these examinations a differential count was made before and several times after operation. In this series it is interesting to note that there was an increase in the number of erythrocytes of from 100,000 to 1,000,000 after the operation. This increase gradually disappeared. In only one case was there any increase in the number of nucleated erythrocytes, and on this occasion the number increased from one to 4. King concludes that an increase of from 5,000 to 10,000 leukocytes in the first 48 hours after operation is normal. The maximum probably occurs within the first 12 hours and is transient. It bears only a slight relation to pulse and temperature. If a sustained increase of 10,000 white cells or more, greater than the individual standard, occurs, it should be regarded with suspicion. The apparent increase in the number of erythrocytes is not, he believes, caused by an actual increase in their number in the circulating blood. [J. S.]

8.—The symptoms of the entrance of air into the veins are a hissing noise, the rapid fall of bloodpressure, a tu-

multuous heart with a churning sound, rapid weakening of the heart's action, general convulsions, loss of pulse, labored and rapid respirations, and finally death. The time from the hissing sound to the weakness of the pulse is usually about 30 seconds. He mentions an instance in which a dog, upon whom an operation was being performed, was by mistake given a considerable quantity of air. All the symptoms described appeared, but the animal was immediately given an intravenous injection of hot saline solution, (120° F.), artificial respiration was employed, and the dog recovered. They accordingly performed a series of experiments upon dogs, and the result seemed to show that death was due primarily to heart failure as a result of gaseous distension of the right heart, or an air embolism of the coronary vessels. The best treatment consists, of course, in the prevention of the entrance of air. This is aided by keeping the patient in a prone position, doing all dissecting with a blunt instrument, and using especial care if the operation be for the removal of carcinomatous or tuberculous glands. If, however, air enters the veins, the fingers should immediately be forced into the wound to prevent further entrance, the cavity filled with gauze, and the chest compressed. If the heart becomes tumultuous and the churning sound occurs, a needle should be inserted in the fourth interspace, one inch from the left border of the sternum and directed obliquely upward. This enters the right ventricle, and aspiration should immediately be performed until blood comes out unmixed with air. At the same time the patient should be given an injection of normal saline solution at a temperature of 115° to 120° F. In conclusion he asserts that the statement that large quantities of air may be introduced into the veins without unfavorable results, is dangerous and unsupported. [J. S.]

9.—Davis reports the case of a man, 30 years of age, who after exposure to heat and then to cold noticed a lump forming on the left side of the chest. This was found to extend from the nipple to the clavicle, and from the edge of the sternum to the deltoid-pectoral groove. The swelling was tender, pitted on pressure, and there was deep fluctuation. There was no history of injury in the adjacent regions. The abscess was evacuated and drained, and the patient rapidly recovered. The pus contained staphylococci and streptococci. No source of infection could be discovered. [J. S.]

10.—Wood mentions an instance in which the right carotid could be seen pulsating on the right side of the pharynx, almost in the median line. This represented the right common carotid. He has seen a similar case in a boy of 7 years. [J. S.]

11.—Wilcox believes that in the treatment of pneumonia we often get good results from the use of nitrates in conjunction with strychnine. Of the various preparations he prefers erythrol tetranitrate in doses of $\frac{3}{4}$ gr. every 4 to 6 hours. He has also employed creosote carbonate according to the method of Cassoute and Corgier in 33 cases with no deaths, the disease terminating by crisis in 24 and by lysis in 9 hours. He also practises intestinal antisepsis when indicated, although when under the creosote treatment tympanites is rare. In addition, supplementary inhalations of oxygen are used, and the diet should be liquid until the physical signs disappear. He objects to antipyretic external applications and slowly acting heart remedies. [J. S.]

12.—Spellissy gives a historical review of the treatment of heat-stroke at the Pennsylvania Hospital. The first and second periods extended from 1751 to 1810. At first the disease was supposed to be due to drinking cold water. Rush was particularly responsible for the belief that drinking cold water is likely to cause sudden death in summer. During the third period, extending from 1811 to 1841 it was observed by Dr. Benjamin H. Coates that perhaps these patients were under the influence of ardent spirits, and suffered rather from congestion of the brain. They did

well under rest, darkness, laxatives and cold to the head. Watts, in 1818, was the first to oppose the cold water theory. Gerhard later mentioned that the post mortem examinations of these patients were negative. In the fourth period publications were made from the Staff of the Pennsylvania Hospital, by Dr. Henry Hartshorne and by Dr. William Pepper the elder, the former reporting 4 and the latter 20 cases. The literature of the subject became much more extensive about this time. Dr. H. C. Wood was one of the earliest to call attention to the pernicious effect of heat. In 1866 Dr. G. B. Wood suggested the term "heat fever," and in the previous year Levick quoted some comparative statistics regarding the treatment which showed particularly the value of rubbing with ice. During this period from 1841 to 1870, 154 cases of heat stroke were treated at the hospital, the mortality being 49 cases. [J. S.]

THE EDINBURGH MEDICAL JOURNAL.

October, 1902. (Vol. XII, No. 4.)

1. Contrast between Certain Diseases in Children and Adults. J. WALTER CARR.
2. The Present Position of the Treatment of Enlargement of the Prostate. C. MANSELL MOULLIN.
3. Bacilluria and Cystitis in Typhoid Fever, and the Action of Urotropin Thereon. HUBERT E. J. BLISS.
4. Some Cases of General Surgical Interest, including Remarks on the Treatment of the Gangrenous Bowel in Strangulated Hernia. G. G. HAMILTON.

1.—Carr, in contrasting certain common diseases in children and adults, says that rheumatism is exceedingly common in early life and extremely serious; but in adults we are accustomed to regard it as essentially a disease having its chief manifestation in the joints, with possible cardiac complications, in children it would be wiser and more accurate to consider it as a disease which attacks any or every part of the heart with possible joint complications. The younger the patient the greater the liability to heart affection, and the less to synovitis, so that not uncommonly, the author states, an attack of acute rheumatism may be represented solely by an inflammation of some part of the heart, most commonly of the mitral valve. In tuberculous disease of the lungs, the starting point in adults is the apex, while in children it quite often starts from the root. The dissemination of the disease through the lungs is much more rapid and irregular than it commonly is in later life. We find that cavities are less common in children than in adults. The physical signs differ in many respects. In regard to the heart, it is found that diseases of the myocardium are confined to adult life, as are valvular lesions. Mitral disease in childhood runs in some respects a different course from that which it does in adults and is quite frequent. We find in disorders of digestion that adults suffering from purely functional dyspepsia rarely get much thinner, while children waste considerably. In ordinary chronic dyspepsia in adults fever is rare, whereas in early youth it commonly produces some fever and also a dry hacking cough. [T. M. T.]

2.—Moullin mentions in his article on treatment of enlargement of the prostate: (1) The use of catheters; (2) prostatectomy; (3) Bottini's operation; (4) operation upon the testes and spermatic cords; (5) drainage of the bladder. In operation upon the testes and spermatic cords he mentions three objects: (a) Causing atrophy of enlarged prostate; (b) preventing attacks of congestion; (c) very occasionally for the purpose of checking the attacks of acute epididymitis, which are so common after careless catheterization, and which add so much to the distress and suffering of old men. [T. M. T.]

3.—Bliss gives, in cases of typhoid fever for the bacilluria and cystitis, urotropin. On account of the costliness of the drug he advises 5-grain doses every 8 hours, on alternate

days, as a routine method. He believes that, if by this means the urine can be kept free from the specific bacillus, it will enormously reduce, if not entirely obviate, the dangers of infection to the nurses in attendance on the disease. [T. M. T.]

LA PRESSE MEDICALE.

August 27, 1902. (Volume II, No. 69.)

1. Acute Insufficiency of the Liver.
LAIGNEL-LAVASTINE.
2. Arrhenal in Malaria in Algeria. A. COCHEZ.
3. Arrhenal in Pregnancy Complicated by Malaria.
FONTOYNONT.

1.—In 6 patients, whose case-histories are reported in full, Laignel-Lavastine noted a condition of acute hepatic insufficiency, characterized by erythema, apyrexia and green vomiting, during a severe infectious disease. Five of his patients had typhoid fever, one pneumonia. Besides, he noted urobilinuria, diarrhea, the stools lacking coloring matter, painful swelling of the liver, hemorrhage from the mucous surfaces, nausea, vomiting, delirium, hallucinations, nocturnal agitation and thoughts of death. Post mortem examination disclosed fatty and granular degeneration of the liver, with similar changes in the kidneys. But one case recovered. This hepatic condition in grave infectious diseases has not hitherto been studied in detail. [M. O.]

2.—Cochet reports in detail the case-histories of 5 patients with malarial fever, in none of whom arrhenal had any effect, though quinine stopped the paroxysms in every case. He concludes that arrhenal will never replace quinine in the treatment of malaria. [M. O.]

3.—Fontoynont reports 4 cases of pregnancy complicated by malaria, quotidian in type, in Tananarive. Protozoa were found in the blood in every case. Arrhenal, which was given in place of quinine, since uterine contractions were feared, caused a gradual reduction in the temperature, with the disappearance of the malaria within a week's time. Recurrence was noted in 2 patients, in one of whom a small amount of arrhenal, in the other a large quantity of quinine, was necessary to overcome the paroxysm. He concludes that arrhenal is less rapid and more certain in action than quinine, that it quickly overcomes digestive symptoms; that it should be given in all cases of malaria in which quinine has no effect, especially in pregnancy; and that it should also be given prophylactically. [M. O.]

August 30, 1902. (Volume II, No. 70.)

1. The Graphic Study of the Movements of Respiration.
LETULLE and POMPILIAN.
2. Gangrenous Bronchopneumonia with Pneumokoniosis.
GEORGES ROSENTHAL.
3. The Treatment of Tonsillar Hemorrhage. E. ESCAT.
4. The Average Daily Dose of Soluble Mercurial Injections. BERTHELEMY, LAFAY and LEVY-BING.

1.—Letulle and Pompilian describe in detail the pneumograph, an instrument which shows graphically the movements of respiration. A number of pneumograms illustrate the article, showing the differences noted in emphysema, pleurisy, pneumothorax, etc. [M. O.]

2.—Rosenthal reports the case of a man of 50, a worker in copper for 38 years, who for 20 years had had a cough every winter. He complained of headache, night-sweats, dyspnea and cough with blood-streaked expectoration. Examination showed gangrene of the upper lobe of the right lung; bronchopneumonia of the middle and lower lobes of the right lung; and congestion and edema of the lower lobe of the left lung. Death followed in a few days. The autopsy showed no traces of tuberculosis, but marked anthracotic infiltration. Areas of pulmonary gangrene were found, giving long bacilli taking Gram's stain, and cocci and diplococci, some taking and others not taking Gram's stain. Besides, staphylococci and streptobacilli were cul-

tivated. The infective agent causing the gangrene was probably aspirated. [M. O.]

3.—Tonsillar hemorrhage, though rare, may occur during or after operation on the tonsils. In the treatment Escat advises cold water, hydrogen peroxide, antipyrine or adrenalin. Cauterization or compression, by tamponing or instruments, may become necessary. Finally sutures or ligatures may be applied. If necessary, intubation, not tracheotomy, should be performed. [M. O.]

4.—Berthélemy, Lafay and Lévy-Bing state that biniodide of mercury may be given to women in oily solution, in daily injections of 0.015 gm. for 20 or 30 days. In men this should be doubled. These are only average injections, not massive doses. They recommend the watery solution of the biniodide, since it is extremely diffusible. Corrosive sublimate may also be given in large doses, when employed in isotonic solution, with sodium chloride. [M. O.]

September 3, 1902. (Volume II, No. 71.)

1. Urobilinuria. A. GILBERT and M. HERSCHER.
2. The Time for Operation in Jaundice due to Gall-Stones. A. COYON.

1.—Gilbert and Herscher, who minutely describe urobilin, believe that it is almost always of renal origin. It is found by the spectroscope and by its fluorescence when added to an ammoniated solution with zinc chloride. It is also very diffusible, and its presence may be suspected from the color of the urine. Attempts have been made to explain its occurrence by several theories, the hepatic, hematic, intestinal and histogenic. None of these explains the majority of cases of urobilinuria. The renal theory seems most probable in most cases, since cholemia exists, the biliary pigments penetrating the circulation and becoming transformed in the kidney into urobilin. Urobilinuria is found with urobilinuric jaundice, and often with hepatic insufficiency. It is also noted in patients with a normal or overworking liver, or it may accompany choluria. [M. O.]

2.—Mangour has recently stated that operation is not needed in most cases of jaundice due to the presence of gall-stones. Hypertrophy of the liver is an important sign; when it decreases with polyuria, albuminuria and other critical symptoms, it indicates recovery. When the liver decreases suddenly, it is time to operate. The biliary pigments in the serum and urine should also be examined. His technique is given by Coyon. [M. O.]

September 6, 1902. (Volume II, No. 72.)

1. Traumatic Tuberculosis and the Law on the Accidents Due to Occupation. E. MOSNY.
2. The Importance of Hygiene in the Treatment of Exophthalmic Goiter. RAOUL LEROY and LUCIEN VESLIN

1.—An injury may be followed by grave results when it affects a local focus of latent tuberculosis. Or the traumatism may be the cause of an outbreak of tuberculosis at a distance from the point of injury. This effect is most marked when the thorax is injured, hemoptysis, pneumonia or pleurisy rapidly following. The French law allows such an injured workman one-fifth of his annual salary, believing that an accident which causes the outbreak of latent tuberculosis does the victim as much harm as it would a well man by making him tubercular. [M. O.]

2.—Leroy and Veslin report a case of exophthalmic goiter in a woman of 36, symptoms having existed 16 years. She was completely cured by hygienic rules, absolute abstinence from tea, coffee and alcohol, a regular mode of living, rest, absence of all emotion, diet, fresh air, bathing, etc., with one application of electricity. [M. O.]

Society Reports.

NEW YORK ACADEMY OF MEDICINE. SECTION ON ORTHOPEDIC SURGERY.

Meeting held October 17, Dr. George R. Elliott in the chair.

Dr. Homer Gibney presented 2 cases, a boy of 9 and a girl of 11, with exostosis of the upper third of the humerus, with X-ray plates. In neither case were there subjective symptoms. Dr. Samuel Lloyd said that the exostosis cases recalled a case of myositis multiplex progressiva in a boy, 7 years old, who had inflammation of the tendons of the pectoralis major and teres major and minor. He came to the hospital with beginning ossification of the sternocleidomastoid. Treated with thyroid the ossification, when not complete, disappeared. He remained in good condition until a short time ago, when a similar condition appeared in the thighs, not arrested by thyroid. In this case the tendinous sheaths were involved, the ossification having spread into the tendon itself, but not including the actual muscular tissue.

Dr. Lloyd, before reading his paper, entitled "Internal Derangements of the Elbow Joint," presented the photographs of a case of posterior dislocation of both bones at the elbow joint. He said he wished to confine himself to the question of "floating cartilages," and "the sporting elbow." He had operated upon a man of 44, who had fallen, striking his elbow. Following this, the joint was tender and painful. He fell again, and since that time had not been able to use his arm. Examination showed atrophy, and motion in elbow joint was limited to about 20°. Flexion of the arm caused pain, and crepitation was apparent. Uncontrollable muscular spasm followed slight flexion. Lateral incisions were made, and the joint opened. Lying in the olecranon fossa, preventing extension of the arm, a cartilaginous body was discovered. On the outer side a second, on the anterior portion a third cartilage was found. These were removed, the joint closed, and the arm was dressed in a flexed position. The patient was discharged with full motion of the joint on the eighth day. Foreign bodies are most common in the knee-joint, although they have been noticed in the ankle, wrist and other joints. They are usually due to the chipping off of some portion of the joint surface. The symptoms were chronic synovitis with limitation of motion. He then referred to "Occupation diseases," or "the lawn-tennis elbow." There is considerable disability and yet no actual disease of the elbow joint. The condition is due to inflammation of the bursa between the tendon of the biceps and the anterior surface of the radius, the bursa between the skin and the olecranon process, or the bursa beneath the olecranon. He believes bursitis to be more frequent than tenosynovitis. In tenosynovitis we usually get the crepitation diffused along the whole tendon sheath, with little or no swelling. In involvement of the bursa, crepitation is not so marked or may be absent; swelling is present, and fullness can nearly always be felt or seen at the site of the most intense pain, and in most instances fluid can be withdrawn by the hypodermic needle. In the treatment he preferred counter-irritation with the Paquelin cautery. Dr. L. A. Weigel showed a number of X-ray pictures of different pathological conditions of the elbow-joint. Dr. H. L. Taylor thought it important that the condition of bursitis should be recognized, as its prognosis and treatment are essentially different from that of joint inflammation. Dr. Royal Whitman said he had removed a foreign body from the knee joint which had proved to be a fragment of bone, covered with cartilage. Dr. T. H. Myers had frequently known great improvement in function follow in children after some years, without operative intervention. Dr. R. A. Hibbs said he believed foreign bodies in the elbow joint were more common than is generally supposed.

Dr. Weigel read a paper entitled "acute bone atrophy from injuries to the extremities." He said this form of bone atrophy was not generally recognized. It differed from the well-known forms of bone atrophy that occur in rachitis, amputation stumps, osteomalacia, etc., in that it was essen-

tially eccentric. The spongy portion of the bone became rarefied by a decrease of the lamellæ, while the compact layer was thinned and porous from a widening of the Haversian canals, as could be demonstrated by the X-ray. Kienböck, of Vienna, and Sudeck, of Hamburg, were the first to call attention to the condition. Traumatism seemed to be the chief etiological factor, although inflammatory processes and nerve injuries might produce these bone changes. According to Wolff, the condition is essentially a trophoneurosis. The most frequent symptoms were cyanosis and edema, with subjective and objective coldness of the skin. Other trophic disturbances, such as glossy skin, hypertrichosis, etc., might also be noted. The prognosis was variable, depending upon the extent and duration of the disease. Stimulating treatment would seem indicated, such as increasing the bloodsupply by massage, frictions, baths, galvanism, etc. Artificial venous stasis was also of much value. Several X-ray pictures were shown. Dr. Lloyd cited a case which had shown all the symptoms described, the patient recovering under the use of thyroid tablets. Dr. Dowd recalled 3 cases of persistent pain, swelling and disability which had followed traumatism.

ARCHIV FUER KINDERHEILKUNDE.

1902. (Volume 34, Nos. 3 and 4.)

8. Diphtheria and Diphtheria Bacilli with Scarlet Fever. J. A. SCHABAD.
9. The Pathology and Treatment of Scarlet Fever. ADOLF TOBEITZ.
10. Infant Feeding. RISSMANN and PRITZSCHE.
11. Congenital Syphilitic Pemphigus Without Affection of the Soles of the Feet or the Palms of the Hands. W. P. SHUKOWSKY.
12. History of the St. Ludwig Hospital for Children, Cracow. JOHAN LANDAU.
13. Some Formulæ of Childhood. S. A. van LEER.

8.—After a full review of the literature, Schabad states that diphtheria may complicate scarlet fever at any period of the disease. For the diagnosis of diphtheria at the beginning of scarlatina, clinical symptoms and bacilli must both be present. Diphtheria bacilli found in the throats of scarlet fever patients early in the disease are not virulent for guinea-pigs, while those found later are very virulent. Cases of scarlet fever with diphtheria bacilli in their throats should be isolated. All such cases should also receive diphtheria antitoxin. [M. O.]

9.—Tobeitz reports the effect of oil of turpentine in 65 cases of scarlet fever, and the occurrence of peptonuria in 15 cases of scarlet fever. He considers oil of turpentine most effective in the treatment of the disease, especially when complicated by nephritis. The cause of the peptonuria, which is not a grave symptom, remains unknown. [M. O.]

10.—After reviewing other methods of infant feeding, Rissmann and Pritzsche give their method in full. At 3½ months infants take undiluted milk, after having been gradually prepared, by increasing the milk in water, milk and sugar mixtures. Many tables follow in detail. [M. O.]

11.—Shukowsky reports a rare case of congenital syphilitic pemphigus in which neither the soles of the feet nor the palms of the hands were affected. The child died when 10 days old. Syphilitic pneumonia, hepatitis, nephritis and encephalitis, with jaundice and enlarged spleen, were found at autopsy. The diagnosis was confirmed by the history of several abortions and still-born children, and by the autopsy. [M. O.]

12.—Landau, who gives the history of the St. Ludwig Hospital for Children, Cracow, describes the hospital, its equipment and the results of 25 years' work done. [M. O.]

13.—van Leer gives several mathematical formulæ for estimating the weight, length and chest measurements of a child. [M. O.]

Original Articles.

THE SURGERY OF BRAIN TUMORS FROM THE POINT OF VIEW OF THE NEUROLOGIST, WITH NOTES OF A RECENT CASE.*

By CHARLES K. MILLS, M. D.,

of Philadelphia.

Clinical Professor of Nervous Diseases in the University of Pennsylvania; Neurologist to the Philadelphia Hospital.

The first operation for brain tumor at which I was present was performed by Dr. R. F. Weir, of New York, November 17, 1887, on a case in which the late Dr. E. C. Seguin had located a tumor in the face and arm centers. One month later, December 15, 1887, I was present at an operation at St. Mary's Hospital, Philadelphia, when Dr. W. W. Keen removed a large fibroma from the parietal region. It might be remarked, in passing, that, in the case of Weir and Seguin, the patient was improved and lived a considerable time, and that in the case of Keen the patient is alive and in good condition, except for the damage already done by the tumor. I examined him more than ten years after the operation. During the fifteen years which have elapsed since these two historical cases, I have seen many operations for the removal of brain tumors. A large number of these have been on cases which came into my hands for diagnosis and in which I advised surgical procedure; another considerable percentage has been of cases in which I have been called in consultation, either alone or with others, to decide upon the propriety and fix the site of operation; in a third set of cases I have had the privilege, through the courtesy of my neurological and surgical friends, of being present at operations on patients with whom I had had no professional relations.

In order to draw conclusions for this paper I have tabulated from this personal experience twenty-two cases in which operation was performed after the diagnosis of tumor or cyst had been made.

I believe in operations for the removal of brain tumors in carefully chosen cases, and this notwithstanding the fact that the percentage of failures in such cases up to the present has been large. This is to be expected. In almost every case the outcome without operation is necessarily fatal, and in the majority of cases surgical procedure has been postponed too long. With more exact localizations; with more precise craniocerebral topographical methods; and with more perfect surgical technique, the percentage of successes has been and will be much increased. By success is meant that the removal of the tumor is followed by complete or large subsidence of symptoms, and by fair guarantee against their recurrence. This is a result to be hoped for when the tumors are fibromata, encapsulated fibrosarcomata, inert gummata and occasionally in other forms of neoplasms. Success can also be properly claimed when the removal of the tumor is followed by relief of painful and distressing symptoms, when the patient's life is prolonged, and he is enabled to

*Paper read before the College of Physicians of Philadelphia, November 5, 1902.

live for several or many years in comparative comfort and usefulness.

After a general presentation of my observations and conclusions, I shall append the notes of a recent unreported case of great interest both from the neurological and surgical points of view.

The causes of failure in operations for brain tumor are: (1) Mistakes in localization; (2) lack of exactness in fixing the cranial areas for operation; (3) excessive hemorrhage; (4) concussion and even contusion of the brain in osteoplastic operations with chisel and mallet; (5) prolongation of operations; and (6) the sudden disturbance of the balance of pressure in the skull by the removal of large hard tumors. The elements of success are simply the reverse of the picture just presented in tabulating the causes of failure.

It is possible that I may be called to account for discussing a subject most of which properly belongs to the surgeon; I do not make the slightest claim to the surgeon's prerogative, but the frequent on-looker, especially if he is personally interested, may acquire the right to discuss matters critically. The development of an art is advanced not only by the work of the artist, but by the observations and criticisms of those who have a deep concern or interest in his productions.

Serious mistakes in localization occasionally occur, but on the whole the neurologist presents an increasingly favorable record in this respect. Out of twenty-two operations in only two was the localization entirely wrong. In one other case two lesions were present, but the most important of these was not in the position of the opening. In two cerebellar cases the tumor was not removed, although present, but too deep to be reached. In several cases, while the localization was correct, the tumors were largely subcortical and hence only partially removable. When mistakes in localization have been made they have been usually in regard either to regions largely latent, like the right temporal lobe or right prefrontal region, or with regard to cerebellobulbar cases. Tumors of the cerebellum often present especial difficulties. This is probably because that, while they so frequently involve the vermis, they tend to invade other parts, as one lateral lobe, the peduncles or the bulb.

When the localization of a growth is for the purpose of exactly fixing the limits of an operation, the method in which the tumor has spread, as determined by a careful study of the history of the development of symptoms in the case, is often of great importance. Much attention must also be paid to compression symptoms. A tumor largely postparietal or prefrontal may at a late period present such prominent motor symptoms, for instance, as to lead the neurologist to believe that the operations should be mainly or solely with the purpose of exposing the motor area.

The importance of Röntgen-ray investigations in locating brain tumors is becoming more and more apparent. In two previous papers, in the *Philadelphia Medical Journal*, I have recorded X-ray investigations made for me on cases of brain tumor. In both of these cases the shadow of the tumor was

obtained. Operation and autopsy confirmed the finding in one case, and operation alone in the other. Numerous experiments made on the cadaver, at my suggestion by Dr. G. E. Pfahler, also demonstrate the fact that not only tumors, but lesions of less density than the brain substance and not homogeneous with it, could be differentiated by the X-rays, these giving areas of less shadow than the normal brain tissue. Previous to the publication of these papers, a tumor of the cerebellum had been localized by Church and Fuchs, of Chicago, by means of the X-rays. I have an additional case to add to this series, a case the notes of which will be appended to the didactic portion of this article. These cases show clearly that, whenever it is possible, a Röntgen-ray investigation should be made when brain tumor is suspected. It is only by experience and close attention to every detail as to exposure, distance of the plate from the skull and character of the vacuum, that favorable results can be obtained.

Dr. Henry K. Pancoast, assistant instructor in clinical surgery, skiagrapher to the University Hospital, at my request investigated several case of supposed tumors or cysts of the brain. In a patient in whose case cerebellar tumor was diagnosticated and on whom an operation was performed for me by Dr. Charles H. Frazier, a shadow was obtained, but the tumor was not found on operation, although it may have been present but deeply situated. Dr. Pancoast reported regarding this case as follows: "From the level of the occipital protuberance downward to the shadows of the vertebræ was a clear space best seen on the plate. In front of this was a definite shadow which was supposed to be due to the tumor. After opening the dura a large collection of clear cerebrospinal fluid was evacuated and of sufficient quantity to account for this clear space. It was impossible to demonstrate the presence of a tumor. Other plates also showed a shadow in this region and were skiagraphs of a dry skull from the hospital skeleton. These shadows were evidently cast by the base of the petrous portion of the temporal bone. The shadow, however, was not present to any marked degree in two other plates, one of Jacksonian epilepsy and one of supposed tumor, though in the latter a vague shadow was seen."

When a tumor has been accurately localized, success in a few instances has not been as complete as it should have been, because sufficient care has not been taken in mapping out the cranial area previous to the operation. This can be done so certainly and with such small expenditure of time, that there is no excuse for waiting until just before operation hastily to fix the position of the fissures, lobes or convolutions. A mistake of less than an inch in locating the anteroposterior position of the central fissure or the height of the horizontal branch of the Sylvian fissure may add considerably to the uncertainties and difficulties in an attempt at the removal of a brain tumor by making the opening so as only partially to include the neoplasm. In these days of large openings it is not sufficient to localize so

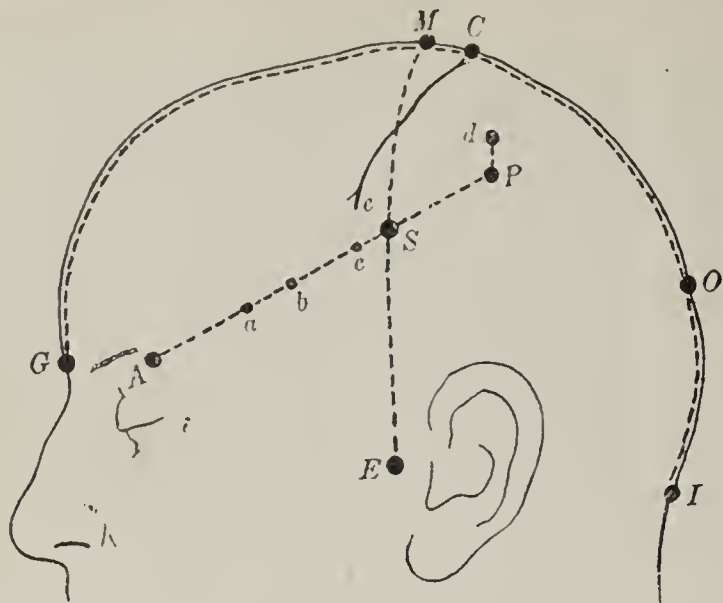


FIG. 1.—Craniocerebral guiding lines traced upon a photograph of one of the casts prepared by Professor Cunningham: G, glabella; I, inion; M, midsagittal point, midway between G and I; A, external angular point; S, squamosal point, intersection of oblique and frontal lines at junction of middle and lower thirds; P, parietal point, termination of oblique line equidistant with b from squamosal point; E, pre-auricular point; a, "commencement" of fissure of Sylvius, five-twelfths of the distance from A to S; b, bifurcation of fissure of Sylvius, seven-twelfths of the distance from A to S; d, termination of fissure of Sylvius, one-half inch (1.25 cm.) above P, in a direction parallel to frontal line; Cc, central fissure; C, upper extremity of central fissure, three-eighths of an inch (.9375 cm.) behind the midsagittal point; c, lower extremity of central fissure, carried to oblique line in direction of fissure, three-eighths of an inch (.9375 cm.) in front of the squamosal point, O, parieto-occipital fissure, on sagittal line seven-twelfths of the distance from M to I; the dotted line from G to I is the "sagittal line;" the line from A to P is the "oblique or squamosal line;" the line from E to M is the "frontal line." (After Anderson and Makins.)

as to bring only half or less than half of the neoplasm into the field of operation.

Usually I prefer to use the Anderson-Makins method of locating the chief craniocerebral landmarks (Fig. 1). These writers suggest: "(1) A median sagittal line, from the glabella to the inion; (2) a frontal line, from the midsagittal point to the depression just in front of the ear at the level of the upper border of the meatus; (3) a squamosal line, from the most external point of the external angular process, at the level of the superior border of the orbit, to the junction of the middle and lower thirds of the frontal line, and prolonged for about an inch and a half behind the frontal line. The upper extremity of the central fissure was found by them to lie between the midsagittal point and a point $\frac{3}{4}$ inch behind it, and the lower extremity of this fissure they located near the squamosal line, about $\frac{3}{4}$ inch in front of its junction with the frontal line. The commencement of the lateral portion of the Sylvian fissure is not at a definite fixed point, but will usually be hit at a point from one and a half to two inches behind the angular process, the course of the horizontal portion of this fissure corresponding closely to the squamosal line. The parieto-occipital notch is placed at a point seven-twelfths of the distance from the midsagittal point to the inion. The longitudinal sinus frequently deviates toward the right side in the caudal portion of its course."

My own method of procedure in a case of operation for brain tumor is, whenever possible, not only to locate the position of the tumor, but also exactly to fix the limits and direction of the osteoplastic flap which it seems most desirable to make. In the present contribution I shall illustrate this by only

one example. If the intention is to remove a tumor accurately limited to the motor region, as in the case the history of which is appended to this paper, the central fissure and horizontal branch of the Sylvian fissure should first be indicated on the shaven scalp; then the area supposed to include the underlying tumor should be exactly mapped out; and, finally, the base-line of the flap which the surgeon is to make should also be indicated. The il-

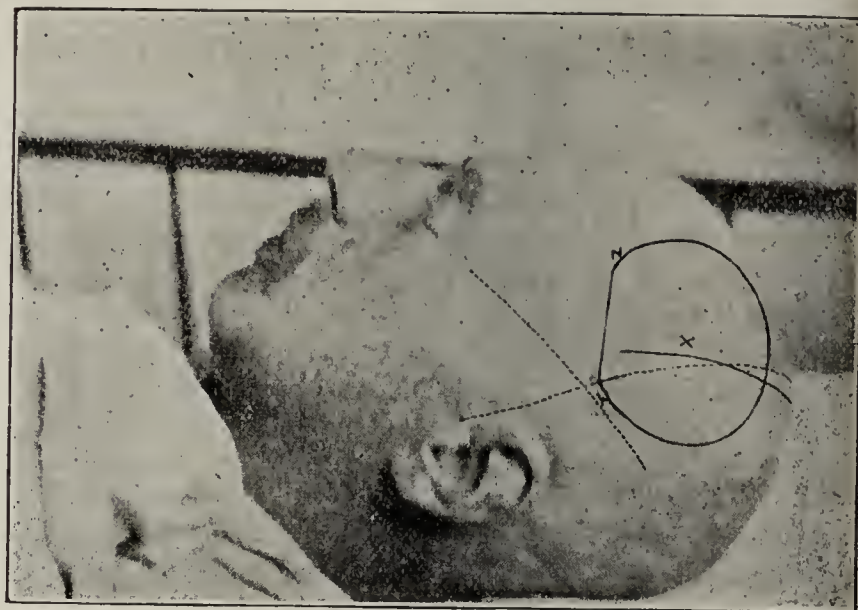


FIG. 2.—Photograph of the motor region outlined on the skull previous to osteoplastic operation with the Stellwagen trephine: X, point for the insertion of the pin of the Stellwagen trephine; Y, Z, baseline; the other lines and points are the same as in Fig. 1.

lustration (Fig. 2) shows exactly the method of carrying out these directions. The squamosal line, which corresponds fairly well to the Sylvian fissure, and the line of the central fissure, having been determined by the Anderson-Makins method, the spot for the insertion of the pin of the Stellwagen trephine is next determined. As the arm of this trephine can be extended so as to give a radius of nearly two inches, the point selected for the pin should be about $\frac{1}{2}$ inch in front of the central fissure at about its middle or a very little below this point. It is now generally believed that the motor region is largely in front of the central fissure, and the circle outlined by the arm of the trephine, when the pin is placed in the position just stated, would be such as to include a little more than the motor region forward and backward, while it would nearly uncover it toward the median line and also in the direction of the Sylvian fossa. The Anderson-Makins lines and the circle can readily be marked on the scalp with a tape-line, compasses and an aniline pencil. The base-line should be about $1\frac{1}{2}$ inches in length and should so bisect the lower portion of the circle as to cross the line of the central fissure at its lower extremity and at right angles to it. In the illustration (Fig. 2) the position for the pin of the trephine is indicated at X, while the base-line extends from Y to Z. When these points have been determined by careful measurement, the scalp can be marked by small incisions at X, Y and Z. At the time of operation it is then only necessary for the pin to be inserted in the proper position in the scalp, and for the knife to be inserted at one end of the base-line and swept around the circle until it

reaches the other end. No time is then lost in determining the direction and length of this line. The aniline markings can, of course, be removed when these positions have been determined, as will be necessary in order to complete the sterilization of the scalp before operation.

Whenever large openings are to be made, and the Stellwagen trephine is to be used, the same method should be followed, that is, the effort should be made accurately to mark out not only the limits but as nearly as possible the direction of the osteoplastic flap, as well as the extent and direction of its baseline. I have seen five to ten minutes lost in endeavors to locate the proper position for the baseline, with the chances that even then it was not in the best position and direction.

The large osteoplastic operation is the only operation that should be employed for the removal of brain tumors, except when the tumor is located in some region in which this operation is not feasible, as when the trephining is to expose one lateral lobe of the cerebellum, or perhaps when it is intended to reach a tumor located under the cerebrum.

With the permission of my surgical friends I should like at this point to say a few words about the old trephine and rongeur, the mallet and chisel, and the Stellwagen trephine in particular. The opening made by the ordinary trephine is very rarely, if ever, large enough for the purpose of removing a brain tumor, so that when it is used the rongeur is almost necessarily resorted to to complete the opening; or it may be necessary to make several trephine openings and connect them by rongeur. While this method was of course the best that could be used until recently, and while many surgeons have become unusually skilful in the use of the trephine and rongeur, the method has always seemed to me crude and undesirable. It consumes much time and work, and usually leaves a ragged opening covered by the scalp, unpleasant in appearance and exposing the patient to injuries from which he is protected by the intact skull. When, through the kindness of Dr. Keen, I had had several opportunities of seeing osteoplastic operations, I became convinced that this method of operating was the only desirable one in most cases of brain tumor. Two objects of great importance were realized by its use, the uncovering of a large brain area and the replacement of the bone-flap which retained its vitality. Several years since I had the opportunity of seeing two or three attempts to replace buttons of bone which had been removed by the trephine and kept during the operation as nearly as possible aseptic and at the temperature of the body. The bone usually necrosed and caused much trouble. The osteoplastic flaps which I have seen have retained their vitality in almost all instances.

With the advent of the Stellwagen trephine a new era in the marking of large osteoplastic flaps has been inaugurated. We owe to Dr. J. Chalmers DaCosta, Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, the introduction of this trephine to the profession (*Annals of Surgery*, Vol. 35, No. 7, July,

1902). Both Dr. DaCosta and Dr. Hearn have suggested important improvements in this instrument or its accessories.

A few surgeons have become very expert in the use of the chisel and mallet, but even in their hands the concussion produced and the time taken are weighty objections. I have long thought that the dental engine might be used in order to make large bone-flaps in shorter time and with less concussion, but owing to difficulties in keeping the cutting accessories aseptic, and owing to the dangers of injuring the brain, surgeons generally have been opposed to this method of operating. The Stellwagen trephine affords the means of opening the skull without concussion and with neatness and dispatch. In an operation performed by Dr. Hearn on a patient whom I saw in consultation and on whom I outlined the cranial flap, a trapdoor of bone and scalp nearly four inches in diameter was lifted just thirty minutes after the first knife-cut was made. In an operation recently done for me by Dr. Hearn at the Philadelphia Hospital, a similar opening was made in 18½ minutes. Mallet and chisel operations for openings of similar size certainly take in some instances twice or thrice this time or even more. Another advantage from the use of the Stellwagen trephine is that the bone-flap neatly and exactly fits into the opening which has been made when it is replaced after removal of the tumor, this not only leaving the head much less unsightly than is usual in other operations, but adding to the probability of reunion and more perfect vitalization.

It scarcely needs to be said that the most desirable positions for osteoplastic operations are anywhere on the lateral aspect of the cranium above the line of the tentorium—over the prefrontal, the motor, the parietal, the occipital, the occipitotemporal, parietotemporal or temporal regions of the skull. Here excellent opportunities are offered for a large flap, and also for the most advantageous use of the Stell-

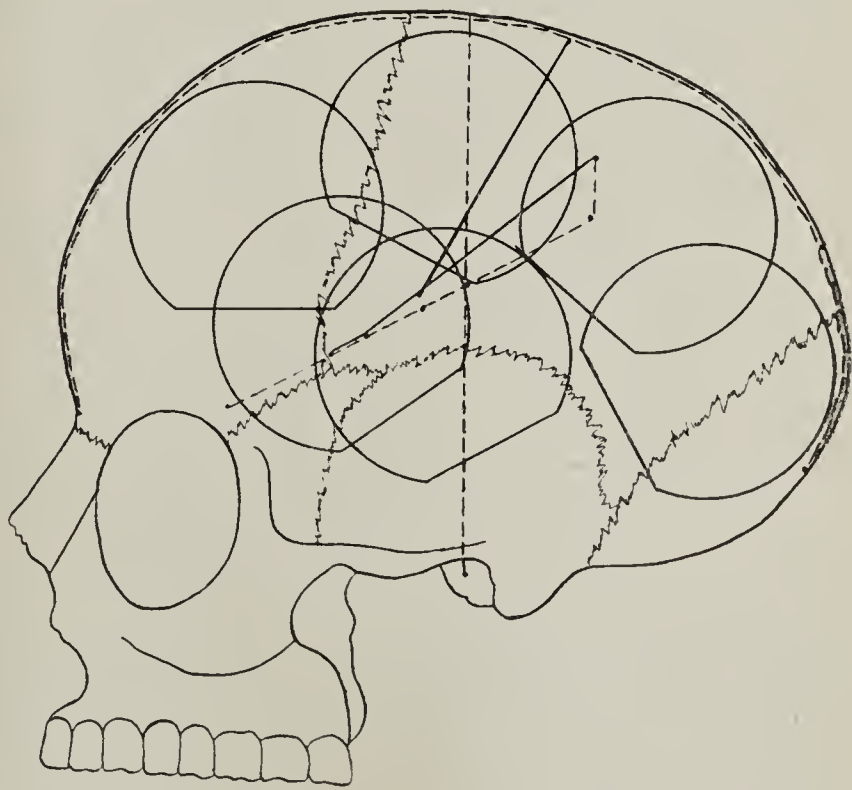


FIG. 3—Cranial areas for osteoplastic operations with the Stellwagen trephine, these areas corresponding to the regions of the left hemisphere with definite syndromes.

wagen trephine. The least desirable portion for such operations, as has already been partly pointed out, are at the base of the brain and below the tentorium. In Fig. 3 are shown the most desirable positions for six osteoplastic operations designed to uncover six of the physiological regions in which tumors are often found. What seems to me to be the best position and direction for the base-line is given in each case. The illustration is intended to show osteoplastic flaps made by means of the Stellwagen trephine. In a paper read at the Saratoga meeting of the American Medical Association, and published in the *Journal* of that Association October 4, 1902, I have indicated similar positions for these operations when the chisel and mallet are used, giving also the definite syndromes for each of these positions.

Unusual difficulties and dangers attend cerebellar and basal operations for tumors. With regard to the cerebellum, I believe that the best operation is one in which the interfering neck muscles are turned back and a good opportunity thus afforded for the scalp-flap and the use of the ordinary trephine. If great care is taken in placing this trephine, the sinuses can be avoided and the opening can be slightly enlarged by the rongeur, so that a tumor confined mainly to one lateral lobe of the cerebellum may be removed. Unfortunately, however, the majority of cerebellar tumors originate in the middle lobe and the peduncles, hence insurmountable difficulties in removal are encountered. Still an operation is justifiable in cases in which a tumor is probably situated laterally in the cerebellum. It has been suggested that in the case of a cerebellar tumor, situated laterally and somewhat forward, operation should be performed by entering the skull in the middle fossa and cutting away the petrous portion of the temporal bone. According to Dr. Keen, the only case in which operation for a brain tumor situated in the posterior fossa could be performed by entering the middle fossa is when such tumor is situated on the under surface of the cerebellum and laterally to the pons and cannot be reached in any other way. In this case it is a possible, but difficult, operation to do by lifting the temporal lobe and incising the tentorium behind and parallel to the ridge of the petrous bone. As I observed in one instance in an operation by Dr. Keen, the temporal lobe may be difficult to lift, either because of the increased pressure caused by the tumor itself or because of the accompanying hydrocephalus. Tumors situated laterally at the junction of the cerebellum and pons may by good fortune be pedunculated and therefore removable. This was seen in one case of brain tumor which came to autopsy under my observation. The proximity of the great sinuses adds difficulties to cerebellar operations. I was present at several demonstrations made by Dr. Keen on the cadaver, these being performed to show the possibilities of operation for tumors of the pons, crus and cerebellum. It was evident that these parts could all be thoroughly exposed, as will probably be described by Dr. Keen himself. At these demonstrations it seemed both to him and to me that the best

methods of attempting to remove a tumor of the vermis would be to make two openings, one a short distance on each side of the median line as close as possible to the sinuses. This would enable a thorough exploration from one side to the other, and might in an exceptional case afford the opportunity of removing a tumor. Dr. Keen believes that these two openings can be made into one by cutting away the intervening bridge of bone without injury to the occipital sinuses, which are small, and in addition the dura could be divided all the way across. The occipital sinuses could either be ligated before division or seized and ligated after division. This would give a wide access to the upper surface of the cerebellum.

In several of my tabulated cases excessive hemorrhage either from scalp, bone or intracranial parts has been the cause of failure, and directly or indirectly of death. In one case the method of controlling hemorrhage during the operation by temporary compression of the carotids was employed. My attention was called to this method by a paper published by Dr. George Crile, of Cleveland, Ohio, in the *Annals of Surgery*, April, 1902. In a communication to the *Philadelphia Medical Journal* of October 25, 1902, Dr. Robert W. Johnson, of Baltimore, states that he was the first to suggest a device for turning off the carotids in operations on the head and neck; and in a still later communication to the same journal, November 8, 1902, Dr. Max R. Dinkelspiel indicates that prior to both Drs. Johnson and Crile the method of compressing the carotids to control hemorrhage during operation was suggested by Senger (1895), Riese (1896), Kocher and others. However interesting this discussion of the question of priority may be, it is not germane to this contribution. The only point that I wish to make is that it would seem desirable for the surgeon, before beginning an operation for brain tumor, to have at command the best appliances for temporary compression of the carotids. In connection with the subject of hemorrhage a matter of interest regarding the use of the Stellwagen trephine may be noted. The incision made by the knife carried by the arm of the trephine, when the flap is of large diameter, is of such length that it may be difficult to catch all the vessels cut as speedily as desirable if the incision is made with a single sweep of the instrument. It is, therefore, better that the knife-cut should be carried to a certain distance, the vessels then tied, the knife carried another portion of the circle and so on until the arc is completed. On a number of occasions I have seen the Horsley cement or wax do good service in controlling hemorrhage from the bone.

Horsley and Macewen have divided operations for brain tumor into two stages, in order to avoid the ill effects of the shock of a long-continued operation. In the first stage the dura is exposed and the wound packed with gauze. In the second stage—some days later—the operation is finished. In exceptional cases I believe that the operation should be done in two stages. When, for instance, the patient's condition before or during the operation is bad, or when un-

usual difficulties and delays are met with in the course of the operation. With regard to the sudden disturbance of the balance of pressure in the skull by the removal of large hard tumors I simply offer this matter for consideration. In some cases collapse has threatened or has taken place when neither hemorrhage, concussion nor other evident cause of collapse was present. It has seemed to me probable that the rather sudden change in the conditions present within the skull by the removal of a tumor which has grown slowly and allowed the brain to accommodate itself to its presence, might account for this.

I append the notes of a case recently operated on for me by Dr. W. J. Hearn, in which the methods of procedure, both as regards localization and surgery advocated in this paper, were more completely carried out than in any previous case.

LOCALIZED MENINGITIS AND GUMMA OF THE MOTOR REGION—DIAGNOSIS BY CLINICAL STUDY AND THE RÖNTGEN RAYS—OSTEOPLASTIC OPERATION WITH THE STELLWAGEN TREPHINE—EPICRANIAL FLAP TO REPLACE THE DURA NECESSARILY REMOVED—COMPLETE SUCCESS OF THE LOCALIZATION AND OF THE OPERATION.

OPERATION BY W. J. HEARN, M. D.,

Clinical Professor of Surgery in the Jefferson Medical College
RÖNTGEN-RAY INVESTIGATION BY G. E. PFAHLER, M. D.

Director of the Röntgen-Ray Laboratory of the Philadelphia Hospital.

R. T., 27 years old, was first admitted to the Philadelphia Hospital September 17, 1901. He gave a history of having been struck by a stone over the left parietal region 11 years previously. He denied having had syphilis, but he had been an alcoholic for 20 years. He said that he had been perfectly well until 8 months before admission, when he began to have spells of dizziness about twice a week. He had had headache every other day for 6 or 8 months. For about 2 weeks before admission he had had impaired vision, according to his statement, in the left eye only. He had vomited but 2 or 3 times since the beginning of his trouble. His headache was on the left side, and was both frontal and occipital; occasionally he had headache on the right side. The pain was sharp and extended down the left side of the face as far as the angle of the jaw; tenderness was present on pressure over the left supra and infra-orbital nerves and at the left mental foramen. There was no tenderness over the exit points of the fifth nerve on the right side. The patient said that he was deaf in his left ear, but when the finger was placed in the right ear he replied to questions asked in a low voice.

When examined at the time of his first admission the motor power in the left lower extremity was distinctly diminished, and resistance to passive motion was feeble; the motor power in the right lower limb seemed to be normal, and resistance to passive movement was good. Weakness in the left arm and leg developed slowly, that in the arm preceding that in the leg by about one week. Knee-jerk on the left side was distinctly exaggerated, but patellar clonus could not be elicited on either side. Kneejerk on the right was prompt. Achilles jerk was about normal on both sides. The Babinski reflex was not obtained on either side. Sensation for touch and pain was normal in all parts of the body, including the face. Stereognostic sense was not impaired in the upper limbs. The dynamometer showed somewhat impaired grip in both hands. In walking the patient occasionally lurched to one side or the other.

At this time, as will be noted from the history, the patient's symptoms, at least those referable to his extremities, were largely, although not exclusively, left-sided. He was, however, much troubled with headache, especially on the left side of the head, and with attacks of dizziness.

The reflexes on both sides were active, although more so on the right. All the symptoms pointed to cerebral or cerebrospinal syphilis, the cerebral lesions probably being of the nature of a gummatous meningitis affecting the membranes of the right hemisphere. Treatment at this time consisted in the use of large doses of potassium iodide, 100 grains a day being the maximum dose. Rapid improvement followed, and the patient was discharged.

On June 19, 1902, he was re-admitted suffering from the same train of symptoms as given above. He was again placed upon the specific treatment, his symptoms disappeared, and he was discharged.

His last admission was on October 4, 1902. His most prominent symptoms at this time were extreme pain in the left parietal region, frequent spasmodic seizures beginning in the right hand and arm, and later involving the right leg and the right side of the face, with temporary partial loss of power in the right arm and leg after the seizure.

Examination showed the pupils to be dilated and the iritic reflex to be feeble for light and distance. The tongue was tremulous and protruded in the median line. There was no involvement of the facial muscles, and no tenderness over the course of any facial nerve distribution. Tenderness was extreme over the left parietal scar and over the surrounding region for a distance of 3 inches or more. Grip in the right hand was slightly impaired. Sometimes immediately after a spasm loss of power in the right arm and forearm was marked. Biceps jerk in both arms was slightly increased, and triceps jerk was normal in both arms. Tactile, pain, thermal and stereognostic senses were normal in the upper extremities and in the trunk. Voluntary and resisted movements in the right leg and foot were slightly impaired. Kneejerks were exaggerated on both sides, more markedly on the right. Ankle clonus was present on both sides. The Babinski reflex could not be obtained on either side. Tactile, pain and thermal senses were unimpaired in the lower extremities. Under the continued use of mercury and the iodides in maximum doses no improvement took place in either the spasmodic seizures or in the localized tenderness in the left parietal region, and only slight improvement in the headache. The eye examination by Dr. G. E. de Schweinitz, October 15, 1902, showed some atrophy of both optic nerves evidently consecutive to a neuritis. Hemianopsia was not present, and the iritic reflexes and ocular movements were normal.

On October 14, 1902, an X-ray examination of the head, by Dr. G. E. Pfahler, showed good detail, including on the left side a fissure involving the inner table of the skull apparently at the position of the frontoparietal suture. The investigation also revealed a shadow irregular in outline, oblong, about 3 inches in length, one inch or a little more in width, extending across the middle of the line of the central fissure and traversed at its center by the middle meningeal artery. The patient was operated on October 21, 1902. Before the operation the area for trephining was laid out according to the Anderson-Makins method.

The Stellwagen trephine was used at the operation. The scalp was found to be edematous and thick, so that the plate of the trephine would not fit closely into the bone structure. A semilunar incision was therefore made, the scalp dissected back, and the plate fitted directly into the bone. The trephine was given a radius of about two inches. In making the scalp incision there was considerable bleeding, all of which was controlled by hemostats. The bone was sawed through in the circular line of the knife-cut, and although the bone was unusually thick, only 18½ minutes elapsed from the time the scalp incision was made until the trapdoor of bone and scalp was raised and turned back. Little bleeding occurred, and that only from small vessels in the dura.

The dura was adherent to the skull over a considerable portion of the bone-flap, which had to be pulled away from the membrane. When the membrane was fully exposed it was found to be very thick, in some places at least four or five times thicker than normal. The dura, pia and arachnoid were adherent, and the agglutinated membranes were also adherent to an oblong, flat mass, which corresponded almost exactly in its dimensions to the shadow furnished by the Röntgen-ray investigation. The inflamed, thickened and adherent membranes and tumor together

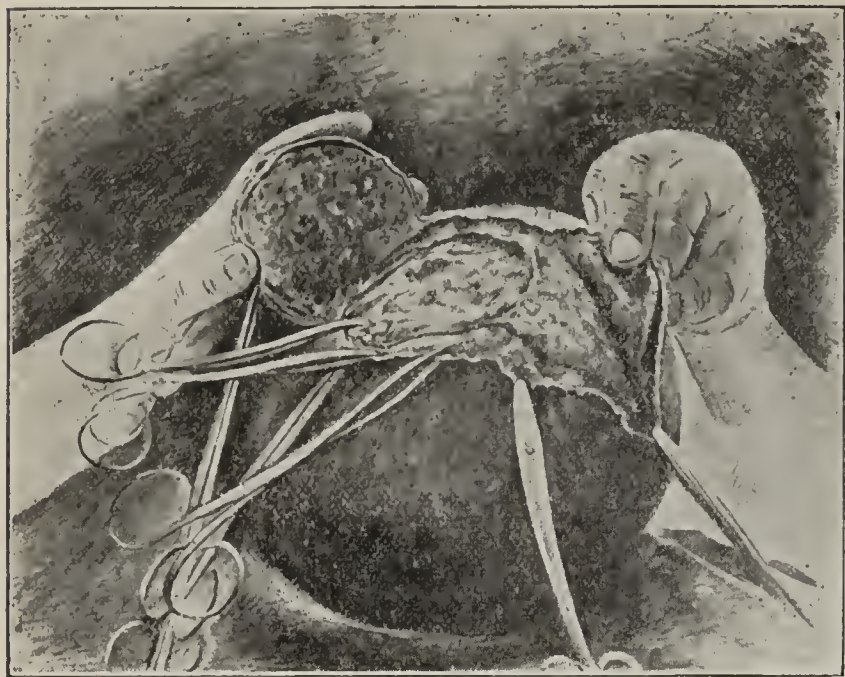


FIG. 4.—Photograph (retouched) showing the appearance presented just after the removal of the membrane and tumor.

formed a mass of just such density as would probably give a shadow. As it was found impossible to dissect the membranes from the mass beneath, it was decided to remove membranes and tumor together. (See Fig. 4.) This was done with but little disturbance of the brain tissue. To replace the removed dura advantage was taken of a suggestion by Dr. Keen, and an incision was made in the scalp outside of the line of the main opening. The scalp was turned back, and a piece of the pericranium was dissected loose and inserted into the opening left by the removal of the dura. This piece of pericranium was turned upside down, so that the osteogenetic surface would be away from the brain and not next to it. The membranes and mass were given to Dr. William G. Spiller for examination, who reported the tumor to be a gumma.

The bone-flap was replaced and fitted perfectly; scalp incisions were next sutured, and small iodoform gauze drainage placed in two places. The patient recovered from the ether promptly and, with the exception of one postoperative sinking spell, he has not had any unfavorable symptoms. During the forty-eight hours immediately following the operation he had several slight spasmodic seizures involving solely the right side of the face, but these have not recurred since. There is no further loss of power in the right arm or leg, nor impairment of sen-



FIG. 5.—Photograph of the appearance presented by the head two weeks after operation, showing the absence of all depression and the close apposition of the flap to surrounding parts.

sation. His headache has entirely disappeared. The patient's general condition is good. In Fig. 5 is shown the appearance of the head two weeks after the operation.

At the time of making this last note, just 4 weeks after the operation, the man has made a perfect surgical recovery, his headache and Jacksonian epilepsy have disappeared, his eyes have improved, and he is in all respects in excellent condition.

SOME EXPERIMENTS UPON THE IMMUNIZATION OF CATTLE AGAINST TUBERCULOSIS.*

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When an extensively tubercular herd is tested with tuberculin one usually finds some animals that do not react to the test and are free from disease. These uninfected animals may be young or they may be recent additions to the herd, and their freedom from disease may be due merely to the fact that they have not had time to contract it; on the other hand, they are often cows that have been members of the herd and exposed to infection for years. That the freedom of these cattle that have long resisted the disease is not due to breed or family immunity has, in numerous instances, been shown by the fact that their parents or offspring have succumbed to tuberculosis.

To what is such resistance to tuberculosis due? It is evident that it does not depend upon species, breed or lack of exposure. It is an individual factor. An animal may possess some power within itself to resist the tubercle bacilli that it is constantly exposed to and must daily inhale and ingest.

Careful observation of these cattle and study of them in series show that the immunity they possess is not due to what is roughly termed good general health or to what the stockman knows as good condition. Cattle resistant to tuberculosis may suffer from some other disease or be in a bad state of nutrition. Cattle that contract tuberculosis show in very many instances, until the infection is well advanced, the usual signs of good health, such as soft coat, pliable skin, clear eyes, good appetite, regular growth or increase of weight and yield of milk in proportion to the quantity and quality of food consumed. It appears, then, that there is reason to believe that some cattle have a specific resistance to tuberculosis. * We know that specific resistance or immunity of the individual, occurring under natural conditions, usually depends on a previous attack of the disease against which the animal is immune, or, as in the case of Texas fever, upon the continued existence of the disease in a form so mild as not to disturb the various functions appreciably. This principle receives practical application when persons are rendered immune to smallpox, or animals to anthrax, black-quarter, lung plague, rabies or Texas fever by inoculating them with the attenuated but living virus of the respective disease and thus causing them to develop it in

*Read before the Pathological Society, of Philadelphia, November 13, 1902.

a comparatively mild form, from which speedy recovery and subsequent immunity are almost certain.

From the inoculation there results the automatic development of an antitoxin, which counteracts the toxin of the disease and at the same time prevents or retards the growth of the organism of that disease. Until comparatively recently this principle has been thought to hold only in respect to certain acute infectious diseases, but it is now known to be of much wider application. Protection upon this principle is usually known as vaccination. In some cases the germ-free toxin is used for the same purpose.

In 1902 we conducted an experiment for the purpose of determining the influence of Koch's original tuberculin upon the resistance of cattle to tuberculosis. (Experiments to test the curative value of tuberculin had been made by one of us in 1893.) In this experiment were used four cows, known by the numbers 26, 554, 26,555, 26,556 and 26,557. Each was tested with tuberculin before it was admitted into the experiment. Two of these cows, 26,554 and 26,557, were given daily injections of 5 cc. of concentrated tuberculin for ten days, from August 24 to September 2, 1901, inclusive. Each of the four cows in the experiment was fed daily 100 gm. of hacked tuberculous lung tissue from a cow, for ten days, from September 10 to 19, inclusive. The first pair of cows, 26,554 and 26,557, that had received preliminary injections of tuberculin, were given subcutaneously 15 cc. of concentrated tuberculin each day during the progress of the feeding upon tuberculous material. The other two cows, 26,555 and 26,556, which had not received the daily preliminary injections of tuberculin, received no tuberculin during the experiment.

One of the cows (26,554) that had been treated with tuberculin and one (26,556) that had not been treated with tuberculin were killed November 25, 1901. The cow (26,554) that had been treated with tuberculin showed upon post mortem examination lesions of tuberculosis in the postpharyngeal and mesenteric lymphatic glands. The control cow (26,555) showed lesions of tuberculosis in the right lung and in the bronchial and mediastinal lymphatic glands, the postpharyngeal and intermaxillary lymphatic glands and in the mesenteric lymphatic glands. The lesions in this control cow were more widely distributed and more advanced than in the cow that had received large quantities of tuberculin.

The other two cows of the experiment were killed December 15, 1901. In the first of these (26,557), which had received the injections of tuberculin, no lesions of tuberculosis were found excepting in the mesenteric lymphatic glands. A few of those glands of both the small and large intestines showed small areas of caseation. The second, control, cow (26,556) showed lesions of tuberculosis in both lungs, the bronchial, mediastinal and postpharyngeal glands; the lymphatic glands of the mesentery were more extensively involved than in the preceding cow.

From this it would appear that subcutaneous injections of the toxin of the tubercle bacillus had had some influence in increasing the resistance of the two cows fed tuberculous lung material.

E. A. DeSchweinitz has reported in the *Medical News*, for December 8, 1894, some experiments made by him upon guinea-pigs, in which these animals were inoculated with tubercle bacilli of human origin cultivated for about twenty generations upon glycerine beef broth, and were afterward inoculated with tubercular material from a cow. The guinea-pigs so treated remained free from tuberculosis, while check animals, inoculated with the same tubercular material from the cow, died of tuberculosis within seven weeks. DeSchweinitz also showed that the twentieth generation of broth culture appeared to be incapable of producing tuberculosis in a cow when she was inoculated intravenously with a small quantity. DeSchweinitz and Schroeder report (U. S. Dept. of Agr., B. A. I., Bulletin No. 13, 1896) upon other inoculations similar in nature that confirm the above results. They show, further, that the attenuated culture they were working with was not virulent for cattle when inoculated intravenously in quantities of 500 cc. of suspension in liquid.

The immunizing effects upon cattle of the administration, intravenously, of tuberculous material or of living cultures have been studied by J. McFadyean and von Behring.

McFadyean has reported, in the *Journal of Comparative Pathology and Therapeutics* for June, 1901, and March, 1902, upon some experiments regarding the immunization of cattle against tuberculosis. He inoculated four cattle intravenously with emulsions of tuberculous material and cultures from various sources. One of these cows, which had responded to the tuberculin test and was no doubt tubercular upon the beginning of the experiment, was given about 150 cc. of tuberculin in divided doses before inoculation. Fifteen weeks after inoculation this animal was killed and was found to contain but one tubercle, the size of a pea, and completely calcified, in a mesenteric gland. Two control cattle inoculated with an equal dose of the same material died of generalized tuberculosis. Of the other three cattle of the series, one was tubercular at the beginning of the experiment. All of these were inoculated intravenously from seven to eleven times during a period of from two to three years with emulsions of tubercular material and with cultures from various sources. It is interesting to note that the first inoculation upon each of the cows that were free from tuberculosis at the beginning of the experiment was made with avian material, which was probably of very low virulence for cattle. The cattle so inoculated died of tuberculosis after two or three years from the beginning of the experiment, and in each case the chief lesions were in the kidneys and the brain or its covering membranes. The cerebral lesion appears to have been the immediate cause of death in each instance. There can be no doubt that these animals were remarkably resistant to tuberculosis, because they lived for months and years after re-

peated inoculations with large quantities of material of proven virulence for cattle.

Von Behring announced December 12, 1901, that he was engaged in studying the immunization of cattle against tuberculosis, and he has since published a report upon his work (*Beiträge zur experimentellen Therapie*, Heft 5, 1902). He details experiments upon several cattle treated with injections of tuberculin and with cultures of varying degrees of virulence and from several sources, and also inoculated with tubercular material or cultures of proven virulence. It may be noted that a pure culture, virulent for cattle, was not available for use in von Behring's work until 1901. The experiments upon seven cows specially reported were commenced between July and December, 1901. These cows have all received repeated injections of tuberculin and of tubercular virus of low and high virulence. All of the protected cows are still alive, excepting one that was killed and was found to have numerous tuberculous nodules in the lungs, although these were believed to be retrogressive. This experiment cannot be looked upon as finished, and any report upon it must be regarded as incomplete until the cows die or are killed and are examined post mortem. The cows may appear to be in good health now, but, notwithstanding, they may be extensively tubercular. However, that they are alive after receiving quantities of virulent tuberculous material that was sufficient to kill untreated cows, shows that they have extraordinary resistance to tuberculosis. The method used to treat these cows is not the one that he now recommends upon the evidence of experiments not yet published. The method now recommended by him is to inject intravenously 0.001 gm. of a scraping from a serum culture of tubercle bacilli, dried in vacuum, powdered and suspended in water. The culture used for this purpose was obtained originally from human sputum and had been grown in his laboratory since 1895. After four weeks, a second injection is made containing twenty-five times the original quantity of tubercle bacilli or 0.025 gm. Von Behring has now under way extensive experiments planned to test the resistance of immunized calves to natural infection from association with infected animals in contaminated premises.

Since 1896, tuberculosis of cattle has been the subject of special and extensive study and experimentation in the laboratory and research station of the State Live Stock Sanitary Board. During this time the virulence for cattle and other animals to tubercle cultures and material from many sources have been tested by Dr. M. P. Ravenel, Dr. John J. Repp and ourselves. The results of some of this work have been reported upon several occasions to this Society by Dr. Ravenel, and to the British Congress on Tuberculosis in 1901. Some experiments looking toward the development of better methods for repressing tuberculosis in herds have been reported by Dr. Leonard Pearson.

It has been shown by numerous experiments that the sputum of persons suffering from consumption and cultures of tubercle bacilli made from such sputum are usually comparatively nonvirulent for

cattle. It is important to know, further, that a given culture of sputum tubercle bacilli is incapable of producing serious disease in such quantities as it may be necessary to use in an attempt to increase an animal's resistance to tuberculosis.

The following experiment throws light upon the question as to the quantity of culture of this kind that may be administered and the effect of repeated inoculations made in four different ways. A Jersey heifer (26,415), shown by the tuberculin test to be free from tuberculosis, was inoculated intraperitoneally September 29, 1900, with 4 cc. of a standard suspension* of human sputum culture that had remained in a collodion capsule in the abdominal cavity of a bull for seven months and was then regained in pure culture by Dr. Ravenel. The third generation on bloodserum furnished the material for this inoculation. She was inoculated intravenously March 15, 1901, with 13.5 cc. of a standard suspension of tubercle bacilli, probably of human origin, that had passed through a coat (*Nasua narica*) and were recovered in pure culture by Dr. Theobald Smith, in 1895. This culture had afterward remained about one year, in a collodion capsule, in the peritoneal cavity of a heifer, and was recovered by Dr. Ravenel. The third generation on bloodserum after recovery supplied the material for the present inoculation. An intravenous inoculation with 10 cc. of similar suspension was made June 1, 1901. August 23, 1901, this heifer was inoculated with 20 cc. of a standard suspension in water of a culture (H) of tubercle bacilli from human sputum. This quantity of material was divided into four parts of 5 cc. each, and these parts were injected beneath the skin, into the peritoneal cavity, into the jugular vein and into the lung, respectively. These injections were repeated at intervals of from seven to ten days until January 29, 1902. The quantity of standard suspension was increased 10 cc. with each successive inoculation, so that at the last, the sixteenth, inoculation the total quantity given was 180 cc. The total quantity given in this series of inoculations was 1,797 cc. of standard suspension. There was a rise of temperature of from two to four degrees following each inoculation after the first one. The first inoculation caused no temperature reaction. The heifer was in strong, thrifty condition at the completion of the series of inoculations and improved in condition throughout the following months. It was killed August 14, 1902. The condition was good, and there was an abundance of fat upon the carcass and about the intestines. The post mortem examination revealed the lungs to be normal in color and elastic; they were free from nodules, but were attached to the chest-walls along the lower border by fibrous bands. A few fibrous flakes were found upon the omentum and these flakes contained a few calcareous nodules about 1-12 inch in diameter. The liver was adherent to the diaphragm over an area five inches in diameter.

*By a standard suspension is here meant a suspension of tubercle bacilli in water in such quantity as to give an opacity equal to that of a 24-hour culture of typhoid bacilli in bouillon. 1cc. of such a suspension is estimated to contain the equivalent of 0.0013 gm. of tubercle bacilli after drying 10 days in a dessicating chamber over calcium chloride.

A yearling grade shorthorn bull (26,442), after having been tested with tuberculin and proven to be free from tuberculosis, was inoculated intraperitoneally November 19, 1900, with 16 cc. of a suspension of tubercle bacilli from a culture from human sputum that had remained in a collodion capsule in the peritoneal cavity of a bull for seven months. The third generation on bloodserum after recovery furnished the material for this inoculation. March 17, 1901, this bull was inoculated intravenously with 13.5 cc. of a standard suspension of a culture similar to that used in the inoculation of the above heifer (26,415) on March 15 and June 1, 1901. This animal was subsequently inoculated in the same manner as the heifer, receiving 18 inoculations between August 23, 1901, and January 10, 1902. He received in all 1,710 cc. of standard suspension. He reacted following the inoculations very much as did the heifer, although somewhat more slowly. He remained in good condition and apparent good health until he was killed, excepting for the development of an abscess over the jugular vein, which was opened November 22, afterward healing nicely. January 18, 1902, this bull was inoculated intraperitoneally with 10 cc. of a standard suspension of tubercle bacilli from a culture (H) of bovine origin. The virulence of this culture for cattle had been proven by numerous inoculations among which the following may be mentioned: A cow (26,431), weighing 950 pounds, was inoculated intravenously January 8, 1901, with 5 cc. of a standard suspension from a culture of bovine tubercle bacillus H. The cow decreased in weight rapidly to 750 pounds and died March 4, 1901. Post mortem examination revealed most extensive miliary tuberculosis of the lungs. Another cow (26,433), weighing 898 pounds, was similarly inoculated at the same time and died January 26 of miliary tuberculosis of the lungs. This cow received two injections of tuberculin of 0.4 cc. each on January 16 and 22. Both of these cows had been shown to be free from tuberculosis by tuberculin test before they were inoculated. A heifer (45,072), about eight months old, was tested and did not react. It was inoculated intraperitoneally April 30, 1902, with 6 cc. of a standard suspension of bovine culture H. It died June 7, 1902, and was found to contain extensive lesions of tuberculosis upon the peritoneum and abdominal organs, and the lungs were also crowded with small tubercles. The bull (26,442) was killed August 13, 1902. The general condition was good; there was much fat upon the carcass and about the internal organs. The pleura lining the lower half of the chest was covered by a sheet of partly organized fibrin from 1-8 to 1-3 of an inch thick. The lungs themselves contained a few nodules about $\frac{1}{2}$ inch in diameter surrounded by thick walls and containing caseous pus in which there were many tubercle bacilli. These nodules did not seem to be progressive, but appeared to be abscesses indicating the sites of previous inoculations. The peritoneum covering the abdominal walls, the stomach, intestines, spleen and liver was coated with a layer of partly organized fibrin, as in the chest. The lymphatic glands about the rectum were enlarged and caseous. The

surface of the omentum was rough from the presence of a thin layer of partly organized fibrin. The omentum was thickened in places, but there were no distinct nodules. From the fact that the fibrinous coating of the serous membranes was as pronounced in the thoracic as in the abdominal cavity, it is probable that the virulent culture of tubercle bacilli injected into the abdomen had little to do with the production of this deposit, which may readily have resulted from the discharge of a pulmonary abscess into the pleural cavity and the discharge of the purulent contents of one of the softened lymphatic glands of the pelvis into the peritoneal cavity.

It is evident that the sputum tubercle bacilli used for the inoculation of these two animals (26,415 and 26,442), even in the exceedingly large quantities in which they were employed, were incapable of causing general tubercular infection. Even the intraperitoneal inoculation of the bull with a quantity of virulent culture nearly twice as great as was necessary when similarly administered to kill an unprotected heifer, did not, so long as he was permitted to live, appreciably disturb his general health. The human sputum culture (M) used for these inoculations was obtained by Dr. Ravenel from the sputum of a consumptive woman, in September, 1899. As a further indication of its degree of virulence it may be noted that two guinea-pigs were inoculated subcutaneously December 18, 1901, with 1 cc. of a standard suspension of this culture. One guinea-pig died March 8 and the other March 20 of generalized tuberculosis. Two rabbits were also inoculated December 18, 1901, with 2 cc. of the same suspension. Both died suddenly in June, one on the third and the other on the tenth, from having been given improper food. Both were free from all evidence of tuberculosis and showed no alteration excepting diffuse redness of the intestines.

These experiments tend strongly to show that cattle may be refractory to enormous quantities of tubercle bacilli from human sputum when injected into the blood; and the result upon one of the animals (the bull) indicates that after such treatment the resistance to virulent culture of bovine origin may be increased.

An experiment was inaugurated in March of this year, again, and more definitely, to test the immunizing value of repeated intravenous inoculations of cultures of sputum tubercle bacilli not virulent for cattle. For the purpose of this experiment four young cattle were used, as follows: A black and white bull, 14 months old (45,066), a red heifer, 12 months old (45,068); a red heifer, 15 months old (45,067), and a red heifer, 11 months old (45,071). All were tested with tuberculin and were proven to be free from tuberculosis. They were divided into two groups of two each, as nearly equal as possible in respect to age, size and general condition. The animals of one group were inoculated intravenously seven times between March 24 and June 2 with gradually increasing quantities of from 10 to 25 cc. of a standard suspension of a culture of sputum tubercle bacilli. In all, 125 cc. of this suspension were administered, representing about 0.16 gm. of tubercle bacilli.

Each of the four animals in this experiment, the two that had been vaccinated (45,066 and 45,068) and the two kept as controls (45,067 and 45,071), was inoculated July 29 by injecting into the trachea 10 cc. of a standard suspension of bovine tubercle bacilli (Culture H), known to be virulent for cattle. The intratracheal method of inoculation was used because it furnished a means of conveying tubercle bacilli into the organs most frequently infected in nature and in a manner unattended with disturbance of function or with material traumatism. It seemed to give a mode of infection closely resembling the natural one. One of the vaccinated cattle (45,068) was killed October 4. A searching post mortem examination revealed all of the organs, including their lymphatic glands and covering membranes, to be free from all evidence of disease, with the exception of a slight fibrous thickening of the wall of the jugular vein at the point of vaccination. At the site of the intratracheal inoculation of July 29 there was no mark, and the mucous membrane of the trachea was entirely normal.

A control heifer (45,071), killed October 8, showed the following upon post mortem examination: At the point of inoculation, upon the outside of the trachea and beneath the skin, there was a globular abscess about $\frac{3}{4}$ inch in diameter, containing cheesy pus. The mucous membrane of the trachea showed a number of small reddish elevations (tubercular) below the point of inoculation. The lungs were studded upon the surface and upon cross-section with grayish nodules $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter, the centers of the larger of which were caseous. These tubercles were evenly distributed in both lungs, and roughly averaged from 1 to $1\frac{1}{2}$ inches apart. They could be plainly seen and felt through the transparent pleura. The apex of the right lung contained a caseous area two inches in diameter which was made up of many adjacent, small tubercles. The bronchial and mediastinal lymphatic glands were enlarged and contained cheesy areas from 1-16 to 1-3 inch in diameter. The postpharyngeal lymphatic glands were enlarged to the size of a hen's egg, hyperemic and on section showed numerous caseous areas.

The second vaccinated animal (45,066) was killed October 16. At the two points of insertion of the needle, where the animal was inoculated on July 29, there were two somewhat hard, globular, fibrous thickenings measuring $\frac{1}{4}$ and 3-5 inch in diameter, respectively. Situated within the tracheal mucous membrane, and occupying positions corresponding to these, were two very small (pin-head) grayish elevations. Upon section it was found that the upper of these small thickenings was made up of fibrous tissue, the lower (the smaller one) contained a focus of caseous material surrounded by thick fibrous walls. The whole appearance was that of a closed process. No other alterations were found in any part of the body. All of the organs, their lymphatic glands and covering membranes appeared to be quite normal. There was no thickening of the wall of the jugular vein at the point of vaccination.



FIG. 1.—Portion of the trachea of immunized bull, No. 45066 showing points of inoculation.

The second control heifer (45,067) was killed October 16. The post mortem report is as follows: Beneath the skin in the middle of the neck, at the point of inoculation, there was an abscess about two inches in diameter that contained cheesy pus. All of the inferior cervical and suprasternal lymphatic glands were enlarged to several times their normal volume and contained numerous areas of caseation. Within the trachea, from the point of inoculation down to its bifurcation and up to the glottis, the mucous membrane lining the ventral half of the tube was thickly studded with oblong, red and



FIG. 2.—Interior of the upper portion of the trachea of control heifer, No. 45,067.

evidently young and progressive tubercular growths. These formations were from 1-6 to $\frac{1}{2}$ inch long and about two-thirds as wide; they stood from 1-12 to $\frac{1}{2}$ inch above the surrounding surface. The post-pharyngeal lymphatic glands were enlarged to the size of a hen's egg and loaded with caseous material.

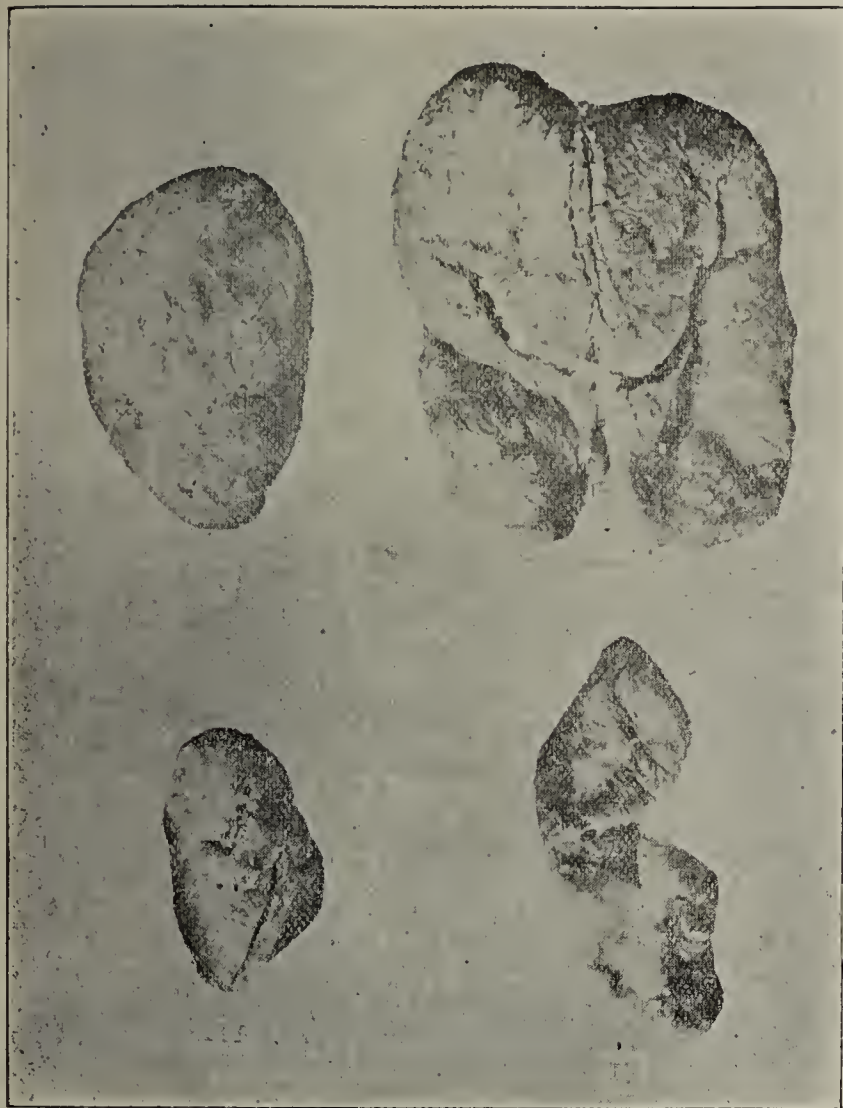


FIG. 3.—I and II. Postpharyngeal lymphglands of control heifer No. 45,067.

III and IV. Postpharyngeal lymphglands of immunized bull. No. 45,066.

The lungs contained many grayish nodules $\frac{1}{8}$ to $\frac{1}{4}$ of an inch in diameter. The smaller were grayish throughout, while the larger had yellow cheesy centers. These nodules were not set so thickly as in the other control heifer (45,071). They averaged from four to five inches apart, and were very evenly distributed throughout both lungs. The mediastinal and bronchial lymphatic glands were enlarged to twice their normal size and contained much caseous material. Many (about 18) of the lymphatic glands of the mesentery were enlarged and caseous. No alteration could be found in the mucous membrane or the walls of the intestines. The infection of the mucous membrane of the trachea above the point of inoculation appears to have been due to the carriage upward, by coughing, of some of the tubercle bacilli at the time of inoculation. It is well known that cattle habitually swallow their expectorations, and this may account for the infection of the postpharyngeal and mesenteric lymphatic glands.

From the experiments here recorded we believe that we are justified in concluding:

1. That after repeated intravenous injections of cultures of tubercle bacilli from human sputum the



FIG. 4.—Bronchial, mediastinal and cervical lymphglands of control heifer No. 45,067.

resistance of young cattle to virulent tubercle bacilli of bovine origin may be increased to such an extent that they are not injured by inoculation with quantities of such cultures that are capable of causing death or extensive infection of cattle not similarly protected.

2. That intravenous injections of much larger quantities of culture of human sputum tubercle bacilli than are necessary to confer a high degree of resistance, or immunity, upon the vaccinated animal, may be administered without danger to that animal.

We now have in progress incomplete experiments upon a number of young cattle for the purpose of testing the duration of this immunity and the extent to which it is effective in protecting cattle against infection from natural sources. We have also started an experiment, which we hope will throw light upon the open question as to the minimum quantities of culture of nonvirulent tubercle bacilli that it may be necessary to administer in order to confer a serviceable degree of immunity and, further, whether it may be possible to simplify the process of vaccination by successive injections of a few cultures of progressive degrees of virulence.

In conclusion, we wish to express our thanks to Dr. M. P. Ravenel and to Dr. H. C. Campbell; to the former for the originals of the cultures used, and to both for general assistance during the progress of the experiments. We also wish to thank the authorities of the Veterinary Hospital and of the Pepper Clinical Laboratory of the University of Pennsylvania, who have generously furnished the State Live Stock Sanitary Board with a laboratory

and with other facilities, without which its research work would have been impossible.

METHEMOGLOBINEMIA DUE TO ACETANILID, BUT WITHOUT ANY MARKED CONSTITUTIONAL SYMPTOMS.

By RICHARD C. CABOT, M. D.,
of Boston, Mass.

Patrick B. Lafleur, a mill operative, entered the Out-Patient Department of the Massachusetts General Hospital, July 8, 1902, in a condition of intense cyanosis. The following history was elicited. Thirty-five years old. In December, 1901, he began to have pain and numbness in the right side of the head. The numbness preceded the headache. At the same time that the numbness began (in December, 1901), painful swellings arose behind the angle of each jaw and throbbing in the whole right side of the head. These swellings, which turned out to be glands, were removed two months ago. The hearing is somewhat affected on the painful side, and there has been nasal obstruction on the right from the first. Occasionally he has shooting pains in the throat. When sleeping, saliva always runs from his mouth. Six months ago he began taking acetanilid for his pain, and since then he has taken on the average 6 5-grain powders a day. A month ago marked blueness of the face and hands was noticed and has persisted ever since. Except for pain he feels reasonably well, although he is easily tired, somewhat constipated and mentally dull. His appetite is good, and he has been at work till 2 months ago, but since November, 1901, he thinks he has lost 50 pounds. Previous to this sickness he has had no illness, and he denies venereal disease. No excess of alcohol. He drinks about 6 cups of tea a day. Family history good. Mother died of child-birth at the age of 42.

Physical Examination.—The patient's skin is of a yellowish livid hue, extraordinarily like that of a cadaver with some post mortem discoloration. The lips, tongue, mucous membranes and nails show marked slaty-blue cyanosis. This is more striking in the finger nails than in the toe nails. The patient is well nourished, indeed rather fat. There is no dyspnea nor evidence of any discomfort. The glands on the right side of the neck are somewhat enlarged. Elsewhere no enlargement can be made out. Behind each ear is a scar about an inch long, due to the removal of glands. The pupils react normally, and the fundus oculi is normal; tongue is clean, the heart, lungs and abdomen entirely negative. The pulses are synchronous, but the left is distinctly larger than the right. The knee jerks are very lively.

Blood.—Soaked into filter paper, the blood was not red at all, but chocolate or mahogany colored. The drop as it stood upon the ear was a still darker brown. The count showed: Red corpuscles, 5,200,000; white corpuscles, 16,000; hemoglobin could not be tested. Differential count showed: Polymorphonuclears, 92%; lymphocytes, 8%; eosinophiles absent. In specimens stained by Wright's method there was granular stippling of a good many of the red cells, and slight poikilocytosis, but no other abnormality was observed. Spectroscopical examination by Dr. Hewes, confirmed by Dr. Pfaff, shows the characteristic spectrum for methemoglobin.

The urine was brownish-red in color and showed the methemoglobin spectrum. A large bottle was sent to Dr. E. S. Wood for examination and found to contain no hematuria.

Examination of the nose by Dr. Payson Clark showed a large polyp hanging from the middle turbinate. This was removed and found by Dr. J. H. Wright to show the typical structure of a mucous polyp with no evidence of a malignant disease.

July 21, 1902. The patient entered the hospital ten days ago in Ward 7, and has had pretty severe pain continually until the past 24 hours. Dr. Clark has removed several more polypi, and the patient states to-day that he is beginning to feel distinctly more comfortable. The cyanosis continues unchanged.

The following blood examinations were recorded in the hospital: July 11, 1902; red cells, 6,096,000; leukocytes, 27,800; coagulation time, 3.5 minutes. No iodophilia. Blood plates normal. Differential count (400 leukocytes) showed:

Polymorphonuclears, 83.5%; lymphocytes, 15.%; eosinophiles, .75%; mast cells, .75%. Many leukocytes showed abnormal fragility and other signs of degeneration. July 23, leukocytes, 21,500; July 27, leukocytes, 22,100; July 30, leukocytes, 17,000; August 1, leukocytes, 24,000; August 5, leukocytes, 29,500; August 8, leukocytes, 20,400. The patient had fever ranging from 99° to 100° during the first week's stay in the hospital. He lost 5 pounds between July 11 and July 18. August 18. The urine averaged about 30 ounces in 24 hours and contained a faint trace of albumin with a few hyaline and brown granular casts. The patient was given ice, ammoniac, cannabis indica, ergotin, phenol sodique, potassium iodide, quinine, paraldehyde, lactophenin, belladonna and other drugs in the hope of relieving his pain, but morphine alone was effective, and at the time of his discharge he needed a grain a day. August 8. Another specimen removed from the nose to-day and examined by Dr. Oscar Richardson showed the characteristic structure of carcinoma. On hearing the diagnosis the patient left the hospital.

September 12. A letter from his brother says that he is in a hospital in Montreal in about the same condition.

The most striking point in this case was the good general condition of the patient. Despite the intense cyanosis and the easily demonstrable methemoglobinemia, he felt and seemed practically well during the intervals of freedom from pain. His headache tortured him, but the methemoglobinemia gave him no inconvenience whatsoever. There was no disturbance of respiration, circulation or any other symptom, if we except the slight evidences of renal irritation which were present from time to time.

THE LOCAL USE OF IODINE IN CORNEAL ULCERS.*

By J. LAWTON HIERS, M. D.,
of Savannah, Georgia.

Late Ophthalmologist to the Central Throat Hospital, Brooklyn; late Vice-President of the Medical Association of Georgia; Corresponding Secretary of the Savannah Medical Society; President of the Georgia State Sociological Society; Member of the American Medical Association; Ophthalmologist, Otologist and Laryngologist to the Park View Sanatorium, St. Mary's Female Orphan Home, Bethesda Orphan Asylum, Savannah Female Orphan Home, and Lecturer on Ophthalmology, Otology and Laryngology in the Park View Sanatorium Training School for Nurses.

After deliberating at length on a suitable subject for a paper to be read before the Florida Medical Association, and in the meanwhile, under deep conviction, I became convinced that nothing would prove of greater interest than the revision of an article published some few years since on the use of iodine in corneal ulcers—for which let me modestly claim priority as to its successful employment in the conditions outlined.

To indite an exhaustive thesis or present a detailed history on corneal ulceration to so distinguished a body would be superfluous, consequently, it will be more fitting to confine my remarks to the therapy of iodine in ulcers of a phlyctenular character, and those of traumatic origin.

The local action of iodine, as is well known, is caustic and antiseptic. It is, likewise, a local stimulant and mild counterirritant, promoting the absorption of inflammatory products. With these prefatory allusions, we are the better able to comprehend its potency when applied to an ulcerating surface of the cornea. The infecting organisms are destroyed and, under its influence, the products of inflammation absorbed, thereby instantly converting the diseased condition into a recent injury which

*Read before the Florida State Medical Association, Jacksonville, April, 1901.

rapidly heals under ordinary antiseptic treatment. Not only are the days of intense suffering to which the patient has become a victim appreciably lessened, but we actually succeed in abbreviating a malady which, under other circumstances, might have culminated in irreparable damage—or even the complete destruction of one of the most useful members of the human body. My experience has thus far proven conclusively that the opacities which follow in the wake of corneal ulcers are infinitely less under the agency of this method of medication than when treated as advocated by the champions of the usual remedies.

As regards the preparation of iodine to be employed, preference should be given the tincture. Relevant to its application, the eye should be first cocainized to complete anesthesia. This having been accomplished, introduce an eye speculum and scrape the ulcer thoroughly with a spud or equally convenient instrument. Dry the part well, then, with just a few fibers of absorbent cotton twisted tightly around an ordinary wooden toothpick, small probe or applicator, which has been previously immersed in the undiluted medicament, apply the iodine thoroughly to the ulcer. Care should be taken, however, to dry off the excess; and none of the drug should be allowed to come in direct contact with the healthy parts of the eye. The organ should be subsequently bathed with sterilized water or boric solution, and then treated as a recent traumatism of the cornea.

The author's first experience with iodine in the conditions indicated dates from September 29, 1895.

On September 1 of that year, Maggie L., a chambermaid, aged 19, came into my office. On examination she was found to be suffering from a phlyctenular ulcer of the cornea, about 2mm. in diameter and 3 mm. from the corneoscleral margin. It had already penetrated one-half the thickness of the cornea. The superficial vessels were greatly injected, lachrymation was profuse and the eye extremely painful. Her physical condition was robust and family history negative. The eye was immediately cocainized, and the ulcer subjected to the actual cautery. Subsequently it was washed with a natural solution of boric acid, followed by the instillation of two drops of a one per cent. solution of atropine sulphate. She was given a prescription for the former preparation and directed to use the same by bathing the eye freely and at stated intervals. A mixture containing the following was, likewise, ordered, the patient using one drop three times daily:

Atropine sulphate	4 gr.
Boric acid	5 gr.
Aquæ destillat.	q. s. ad. 1 dr.

Absolute rest and confinement in a dark room were insisted on. This treatment was continued, and, while at the end of the fifth day all inflammation had subsided, the ulcer had not healed. By the seventh day the previous inflammatory state had recurred. The eye was again cocainized and the ulcer cauterized. Anticipating that a change in medication would prove beneficial, the atropine was discontinued and cocaine, one grain to the ounce of water, substituted. The directions for use, however, were as for the first mixture. Hot applications, as an adjunct, were employed every three hours. Improvement was immediate, and by the end of the fourth day the ulcer was scarcely more than 1 mm. in diameter. The former condition soon manifested itself, however, and in an aggravated shape. In fact, to such an extent that sloughing of the initial sore was greatly evidenced. It was at this stage, after many vain attempts to arrest its progress, that the efficacy of iodine and its possibilities became a dominant factor, and strengthened the determination to give it

a thorough trial. Having completely anesthetized the eye with cocaine, as in each preceding operation, the speculum was introduced and the ulcer carefully scraped with a spud, and the official tincture applied by means of a few fibers of absorbent cotton firmly twisted on a probe. The excess having been wiped off with a piece of cotton, the offending member was then washed with a saturated solution of boric acid and the patient placed in bed. Small pads of absorbent lint, steeped in a similar solution containing fifteen grains to the ounce of distilled water, were applied and changed at brief intervals. At the expiration of twenty-four hours the ulcer had entirely healed.

October 14, 1895, Mr. N. B., 23 years old, a carpenter, was struck in the right eye with a small chip of wood. Having treated himself with domestic remedies for two days with no avail, he concluded to seek professional advice. The examination revealed a central traumatic ulcer of the cornea. Complete cocainization was immediately effected, the ulcer curetted and treated with an application of iodine, as above indicated, after which the eye was washed with sterilized water and a small pad of absorbent cotton together with a light gauze bandage applied. This was kept moist with a saturated solution of boric acid used as occasion might require. On the subsequent day, his condition having so markedly improved, the same treatment was continued, and at the end of forty-eight hours the last vestige of his former trouble had disappeared.

From the inauguration of this plan of medication in 1895, it had been my privilege to treat something over two hundred cases of corneal ulceration, both of the phlyctenular variety and those of traumatic origin; and while at first it was my custom to resort to iodine in all simulating conditions, an experience of five years has lead me to the conclusion that its special adaptability is to ulcers that are indolent in type. It lessens rather than increases scar tissue. For them it seems to possess a peculiar affinity, over them to exert a remarkable influence. The after-treatment should vary according to the indications of each individual case. The judicious use of iodine cannot be too warmly advocated; and while, in some instances, two and even three applications have been necessary to effect a cure, the majority of cases have readily yielded after its first employment.

A TEST-TUBE FILLER.

By F. E. MONTGOMERY,
of Washington, D. C.,

This apparatus was especially devised for the purpose of facilitating the work of filling culture tubes, small flasks, etc., with exact quantities of liquid media, but it may be used for a number of purposes in both the bacteriological and chemical laboratory.

The apparatus, as pictured in Fig. 4, is composed of two parts: A double pinch-cock and a glass burette with side tube.

The pinch-cock is made from a single piece of nickeled spring wire (or from 2 pieces of different strengths joined at the point x in Fig. 1) and is bent (Figs. 1, 2 and 3) in such a way as to make one of the two springs (the larger) weaker than the other, which arrangement allows the jaws of one to be closed before the jaws of the other are opened.

The burette, as shown in Fig. 4, is a small, graduated

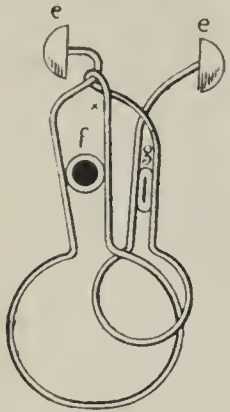


Fig. 1

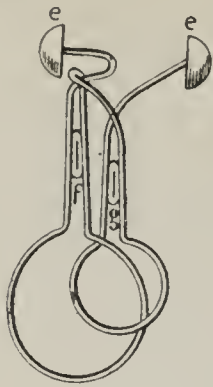


Fig. 2

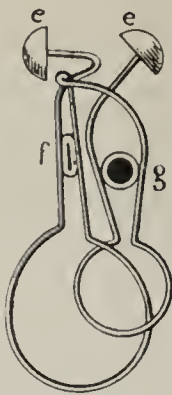


Fig. 3

glass receptacle of about 20 cc. capacity arranged with a glass tube (b) at the side, one end of which opens at the lower part of the interior of the burette, while the other end is connected with a funnel or some suitable reservoir by means of a piece of soft rubber tubing. The upper opening of the burette is closed by a rubber stopper through which a small capillary tube passes, while the outlet is connected with a glass nipple by a second piece of rubber tubing corresponding in position to the first.

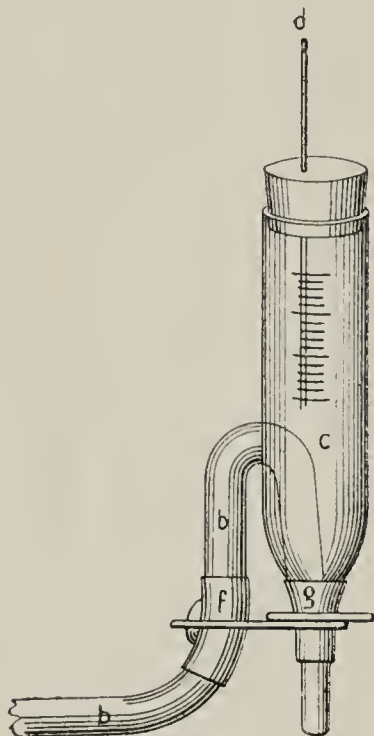


Fig. 4
Side View (left)

The liquid is placed in a funnel (or some other suitable reservoir) which is attached at the point A (Fig. 4), and, the left side of the double pinch-cock being open (Fig. 1), it passes through the tube b between the clamps at f and into the burette c, where it rises to the level of the lower part of the capillary tube d.

To operate this appliance the finger plates ee are pressed together, which movement first closes the left side of the pinch-cock (Fig. 2) at the point f, thus cutting off the supply from the reservoir, and then opens the right hand side of the pinch-cock (Fig. 3) at the point g opening the tube running from the burette and allowing the liquid to flow out. When the spring is released this tube g is closed and the one on the left f is then opened so that the liquid again flows into the burette. The pinch-cock is thus alternately pressed and released until the liquid in the reservoir is exhausted. The liquid in the burette c may be gauged to any desired amount by raising or lowering the capillary tube d.

This little apparatus has been of great service to me in the laboratory, and I think it will prove of equal value to all those who wish to do rapid and accurate work.

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending November 22, 1902:

SMALLPOX—United States.

			C.	D.
CALIFORNIA:	San Francisco.	Nov. 2-9.	2	
	Stockton.	Oct. 1-31.	3	
		Nov. 1-13.	1	
COLORADO:	Denver.	Nov. 1-8.	1	
INDIANA:	Indianapolis.	Nov. 8-15.	2	
KANSAS:	Wichita.	Nov. 8-15.	1	
LOUISIANA:	New Orleans.	Nov. 8-15.	1	
MAINE:	Biddeford.	Nov. 8-15.	3	
	Portland.	Nov. 8-15.	1	
		Nov. 8-15.	1	
MASSACHUSETTS:	Boston.	Nov. 8-15.	20	2
	Cambridge.	Nov. 8-15.	1	1
	Marlboro.	Nov. 1-15.	7	
	Taunton.	Nov. 8-15.	1	
	Weymouth.	Nov. 8-15.	1	
	Worcester.	Nov. 7-14.	1	
MICHIGAN:	Detroit.	Nov. 8-15.	31	
	Grand Rapids.	Nov. 8-15.	6	
NEW HAMPSHIRE:	Manchester.	Nov. 8-15.	2	
	Nashua.	Nov. 8-15.	16	
NEW JERSEY:	Camden.	Nov. 8-15.	3	
	Newark.	Nov. 8-15.	1	
NEW YORK:	New York.	Nov. 8-15.	2	
	Cincinnati.	Nov. 7-14.	3	
OHIO:	Cleveland.	Nov. 8-15.	21	4
	Dayton.	Nov. 8-15.	3	
	Youngstown.	Nov. 1-8.	1	
PENNSYLVANIA:	Altoona.	Nov. 10-17.	3	
	Erie.	Nov. 8-15.	4	
	Johnstown.	Nov. 8-15.	5	
	McKeesport.	Nov. 8-15.	1	
	Philadelphia.	Nov. 8-15.	3	
	Pittsburg.	Nov. 8-15.	25	1
UTAH	Salt Lake City.	Nov. 8-15.	1	
WISCONSIN:	Milwaukee.	Nov. 8-15.	10	

SMALLPOX—Foreign.

BARBADOS:		Oct. 13-25.	146	
AUSTRIA:	Prague.	Oct. 25-Nov. 1.	14	
FRANCE:	La Rochelle.	Oct. 19-26.	1	1
	Rheims.	Oct. 19-Nov. 2.	1	1
GREAT BRITAIN:	Roubaix.	Oct. 1-31.	1	
	Leeds.	Oct. 25-Nov. 8.	3	
	Liverpool.	Oct. 25-Nov. 1.	3	
INDIA:	Manchester.	Oct. 25-Nov. 1.	1	
	Bombay.	Oct. 7-21.	6	
	Calcutta.	Sept. 27-Oct. 18.	1	
ITALY:	Madras.	Oct. 4-10.	1	
	Milan.	Sept. 1-30.	1	
	Palermo.	Oct. 18-Nov. 1.	2	
RUSSIA:	Moscow.	Oct. 18-25.	1	
STRAITS				
SETTLEMENTS:	Singapore.	Sept. 20-27.	6	
TURKEY:	Constantinople.	Oct. 19-Nov. 2.	2	

YELLOW FEVER.

COLOMBIA:	Panama.	Nov. 3-10.	4	
MEXICO:	Coatzacoalcos.	Nov. 1-8.	2	1
	Tampico.	Nov. 1-8.	7	
	Vera Cruz.	Nov. 1-8.	10	6

CHOLERA—Insular.

PHILIPPINE				
ISLANDS:	Manila.	Sept. 21-27.	43	36
	Provinces.	Sept. 21-27.	5583	3,560

CHOLERA—Foreign.

CHINA:	New Chwang.	Sept. 13-20.	25	25
INDIA:	Bombay.	Oct. 7-21.	2	
	Calcutta.	Sept. 27-Oct. 18.	47	
JAPAN:	Kobe.	Oct. 11-18.	24	12
	Nagasaki.	Oct. 11-20.	61	41
JAVA:	Batavia.	Sept. 27-Oct. 4.	42	38
STRAITS				
SETTLEMENTS:	Singapore.	Sept. 21-27.	22	

PLAGUE—Foreign.

CHINA:	Hongkong.	Oct. 4-11.	1	1
INDIA:	Bombay.	Oct. 7-21.	142	
	Calcutta.	Sept. 27-Oct. 18.	25	
	Karachi.	Oct. 12-19.	13	9

Pruritus With Measles.—Vergely (*Journal de Médecine de Bordeaux*, September 7, 1902) reports an interesting case of measles in a boy of 6, complicated by pruritus. The eruption was abnormal in form and very scanty, while a few of the spots became hemorrhagic. Besides, sudamina were abundant. The itching was intense and the child was soon covered with scratch marks. In 4 other cases reported there was also marked itching. The pruritus was most probably due to measles, though this complication occurs but rarely.

[M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8

VOL. X. NO. 23

DECEMBER 6, 1902

\$5.00 PER ANNUM

Dr. Walter Reed.—In this issue we print an obituary of Major Walter Reed, U. S. A., who died of appendicitis on the 23d. of November. In the death of Dr. Reed the medical profession of this country has lost one of its most eminent scientific leaders. It is impossible to overestimate the value of Dr. Reed's services to the public health of this and other exposed countries in demonstrating the mosquito mode of transmission of yellow fever. In conducting the series of researches in Cuba, which led to this most important contribution to our knowledge of yellow fever, Dr. Reed and his associates were not only constantly exposed to the infection, but two of them developed the disease, one dying as a result. It is desirable that the lay and professional public of this country should fully appreciate Dr. Reed's services to humanity. It is to be hoped that Congress during its present meeting will make an adequate provision for Dr. Reed's family, and it would seem further to be a fitting testimonial, in recognition of the value of the great services that he rendered, for the medical profession of this country to undertake to raise funds for an appropriate monument to be erected over his grave in Arlington Cemetery.

The Pseudodiphtheria Bacillus.—A perplexing and ever-recurring problem in connection with the etiology of diphtheria is the relation of the pseudo to the true diphtheria bacillus. We know that the diphtheria bacillus varies greatly both in morphology and virulence, some of the cultures being entirely avirulent. We also know that the pseudodiphtheria bacillus can be distinguished from the true only with considerable difficulty, but what is the relation between the two organisms and the relation of the latter to diphtheria is still a matter of controversy. The so-called French school, headed by Roux and Yersin and Behring, and represented in this country by Wesbrook and Gorham, maintains that the two organisms belong to the same species, one being simply a modification of the other. On the other hand, a large number of bacterio-

logists in this country as well as abroad denies any closer relation than mere cultural similarity and refuses to admit that the pseudodiphtheria bacillus plays and role in the etiology of diphtheria.

This controversy is not a matter of mere bacterial classification. It carries with it some vital problems of sanitary importance, problems in which the physician and sanitarian are equally concerned. If the pseudodiphtheria bacilli are only attenuated true diphtheria bacilli, may not they become under certain conditions virulent and be the cause of diphtheria, as is conceded to be the case with the avirulent true bacilli? If such be the case, should not the person harboring the pseudo bacilli be equally quarantined? Again, is not the presence of pseudodiphtheria bacilli in the exudate from a suspected case an indication that the case is one of diphtheria? If, on the other hand, the pseudodiphtheria bacilli bear no etiological relation to diphtheria, their presence, when established, may be entirely disregarded. An approach to a possible solution of these problems was made when bacteriologists undertook to ascertain the degree of pathogenicity or virulence of the pseudodiphtheria bacillus.

De Simoni, Bergey and several other observers succeeded in producing morbid changes by injecting cultures of pseudodiphtheria bacilli, but these changes were in no way characteristic of diphtheria. That this virulence is not at all uniform is shown by Schabad, who failed entirely to produce morbid changes by injections of various quantities of bouillon cultures of pseudodiphtheria bacilli. Hewlett and Knight claimed to have succeeded in two instances in rendering the pseudodiphtheria bacillus virulent, but their experiments were subject to error, since they worked with mixed cultures. Salter's experiments on rendering the pseudodiphtheria bacillus virulent by repeated passage through small birds, are conclusive as far as they go, but there is no certainty that the organism he employed was not an avirulent diphtheria bacillus, since at that time he could not employ Neisser's differential stain.

In short, there is not a single undisputed experiment proving that the pseudodiphtheria bacillus may be transformed into a true virulent diphtheria bacillus. Recently, Bomstein (*Russki Archiv Patologii, Klinitcheskoy Mediciny i Bakteriologii*, August 31, 1902) conducted a series of experiments which seem to show conclusively that the pseudo bacillus differs biologically from the true diphtheria bacillus. By employing Salter's method together with intraperitoneal cultivation of true, avirulent and pseudodiphtheria bacilli he succeeded in increasing the virulence of the true and rendering the avirulent bacillus virulent, but in no instance did he succeed in rendering the pseudo bacillus virulent, or in the least modify it. His conclusion, therefore, is that the latter has nothing to do with diphtheria, a conclusion reached last year by another Russian investigator, Schabad, after painstaking experiments on the subject.

Doctors and Preventive Medicine.—It is taken as a matter of course, nowadays, that physicians should do all within their power to eradicate disease, just as clergymen are supposed to do all within their power to eradicate sin, the difference being (and we think it to the credit of the physicians) that the former diminishes his livelihood, whereas the latter increases his. In all other trades and professions it appears to be the rule that the more work a man can make for himself the more it is to his credit. Dr. John J. Black, of Delaware, is a fine type of the altruistic medical man. He has just published a brochure upon consumptives in Delaware, in which he urges the State Legislature to purchase a site and appropriate money for the erection of a state sanatorium in which unfortunate consumptive patients could be cared for, relieved and, if possible, cured. He has taken pains to study the subject and points out the great advantages that would accrue to the State if some such plan were adopted, not only the improvement of the patients, but also the prevention of the infection of others.

It is not necessary to accept unreservedly the enthusiastic statements of the advocates of sanatoria, that pulmonary tuberculosis is a curable disease; rather, we think, it would be safe to say that it is one of the most incurable of diseases, but one which may be rendered latent, and one in which considerable improvement in the general condition may be produced by appropriate treatment, and this improvement is well worth the small sum required to maintain a patient in a suitable institution. It is not at all to the point to urge, as some have done, that the statistics of cases treated in dispensaries, and carefully

following the directions given them as regards outdoor life, are quite as good as those of the patients treated in sanatoria. To our minds it is the well rather than the sick who demand the first consideration, and the segregation of consumptives is one of the most important measures of preventive medicine. Dr. Black lays forcible emphasis upon this point. We congratulate him most heartily, and hope that his eloquent plea will be heeded by those to whom it is chiefly addressed.

Municipal Sanatoria for Consumptives in Ontario.—We have received from Dr. E. J. Barrick, of Toronto, a copy of an act submitted to the Legislative Assembly of the Province of Ontario for the establishment of municipal sanatoria in that province. This act is very broad in its scope, permitting any municipality or combination of municipalities to establish and support a sanatorium for tuberculous patients. One excellent provision of the act allows such sanatoria to be established anywhere within the province—not necessarily within the boundaries of the particular municipality. The Anti-Consumptive League of Toronto has recently started a movement to have such a sanatorium established for the benefit of the consumptives of that city. The mortality from tuberculosis in Toronto averages nearly 500 a year. These figures supply an eloquent argument.

It appears that Ontario was the first province in Canada to enact such a general law, and that it preceded all the States of the Union in this matter. Its philanthropists and legislators are deserving of great credit for their humanitarian enterprise. Tuberculosis must be fought, not in spots, but everywhere, for it is a universal scourge. Moreover, it requires, not merely individual enterprise, but concerted public action. Every city and every county must join in this crusade. The Canadians have recognized this fact, and are entitled to credit for so doing.

Malaria on Classic Ground.—Travelers in Italy have not often given us more graphic pictures than Mr. George Gissing, whose beautifully illustrated book, *By the Ionian Sea*, would repay any doctor for the reading. We have been impressed particularly with the description which Mr. Gissing gives of Cotrone (the ancient *Croton*) on the shores of the Gulf of Tarentum. The author found this place inhabited by an enfeebled and malaria-stricken people; and he had good cause to remember the town, for he took the fever himself and might have died of it. Cotrone and the surrounding country are ap-

parently almost depopulated, and yet this is not one of the worst regions in Italy for malaria.

The contrast between the present and the past at Cotrone is most striking, and most disheartening. The ancient Croton was one of the largest and most opulent of the Greek cities of lower Italy. It was famed for its *healthfulness*. Its salubrity, indeed, was so great that it became a medical center of the ancient world. It was the seat of a famous medical school, and was the home of Democedes, who was reputed the first physician among the Greeks. It was also the residence of the philosopher, Pythagoras, who there attempted to work out some of his social ideas. The city of Croton could put an army of 130,000 men in the field. It was of ancient foundation, for it dated from the year 715 B. C.

Mr. Gissing discusses the possible causes of the changes in the country and the people since the time of their ancient prosperity and splendor. His Italian doctor argued that the sole cause was the destruction of the forests, which had permitted the streams to dry up. This is an old idea in Italy, but needless to say it is not the correct one. The culpable agent is the mosquito known as *anopheles*, and the active cause is the plasmodium of malaria. It is strange that Mr. Gissing and his Italian doctor did not hit upon the truth at this late day.

It would be interesting to speculate, as indeed some Italian scientists have done, about the influence of the malarious mosquito upon civilization.

Sanitary Conditions in Manila.—The report of vital statistics of Manila for July last, just received, shows the difficult problems presented to the United States authorities, and indicates that more sanitary reform has been accomplished than was expected by conservative persons. To many Americans Manila is little more than a name, but to those who are in control of its mixed population it seems to be a sad reality. The population is placed at about 300,000, of which over two-thirds are Filipinos and most of the remaining third Chinese. The total deaths during July were 2,223, the largest ratio being among the Filipinos and the smallest among the Chinese, a disproportion caused by the small cholera death-rate among the latter class. While the Filipino population is less than four times that of the Chinese, the cholera death-rate of the former is over thirteen times that of the latter. The official report gives no comments, but those familiar with the conditions in the East know that the Chinese practice of using water almost entirely in the form of tea prevents infection. The proportion of recoveries to cases of cholera is, however, much

lower in both Filipinos and Chinese than in the other nationalities represented. Thus, among Americans, presumably principally soldiers, out of 738 cases 16 recovered, but among Chinese out of 72 cases only 2 recovered. A comparison of the entire mortality for the first half of the years 1900, 1901 and 1902, respectively, shows that the annual death-rate per 1000 has varied greatly, ranging from 28.46 in July, 1901, to 86.68 in July, 1902, the high figure in the latter case being due to the exceptionally severe cholera epidemic. An itemized report of lepers in the whole of the islands gives a total of 3,063, almost all of whom are of the Filipino race.

Beaumont and St. Martin.—The story of Alexis St. Martin, and how his stomach was immortalized by Dr. William Beaumont, has often been told, but never with more of dramatic interest than by Dr. William Osler in his recent address at St. Louis. We trust that every medical man who can obtain this address will read it carefully.

The episode of St. Martin was truly a wonderful one, not only for its scientific importance, but for its large measure of human incident. The narrative throws light not only on the problems of digestion, but on interesting phases of frontier life and the hard struggles of our pioneer doctors. That one of these heroes of medicine was equal to the task of conducting a series of accurate observations in an obscure field of physiology, and amid circumstances the most adverse, is to the lasting credit of both himself and his guild.

Dr. Osler has well seized upon the salient points of this remarkable episode, and made of it a story of absorbing interest. The history of Beaumont's observations on Alexis St. Martin will always remain one of the best chapters in the history of medicine, and Dr. Osler's presentation of it is worthy of the man whom he styles the "first of American physiologists."

The address seems to reveal one fact which we had never before heard about Beaumont, namely, that he did not take a medical degree before entering the United States Army as surgeon. If this were so, Beaumont was like not a few of the early pioneers of medicine in this country. Medical colleges were scarce in those days, and many a good practitioner graduated from his preceptor's office.

The Army Canteen.—This vexed question bids fair to be more vexatious than ever before the winter is gone. Army officers by a large majority are in favor of re-establishing the canteen, and they ought to know something about it. The evidence

goes to prove, according to General Corbin and others, that the abolishment of the "soldiers' club" has been followed by a large increase in drunkenness, arrests and desertions. In place of the canteen there has sprung up about army posts a lot of drinking saloons that are about as bad as such saloons in such places can well be, and they are, of course, out of the control of the authorities.

If this subject is again aired in Congress this winter, we trust it will be discussed in a sane and dispassionate way, and be referred to the army authorities with the power to settle it. It should not be a Congressional question—but if it must be, let us hope that the law-makers will be actuated by the evidence that has accumulated since the canteen was abolished.

This *Journal* recognizes fully its responsibility on the alcohol question; as an exponent of professional opinion it is against intemperance in everything (including sumptuary legislation); and it believes that any attempt to make men temperate by act of Congress is destined to fail.

Needless Self-Sacrifice.—The newspapers and many medical journals are still engaged in commenting on the deeds of self-sacrifice of Dr. Garnault, the French physician, who is endeavoring in various ways to inoculate himself with bovine tuberculosis. Incidentally, the similar experiments, involving possible loss of life, performed on themselves by the late Pettenkofer and others, are mentioned with the proper degree of admiration and appreciation of the heroism involved in experiments of this nature. While we fully share in the veneration of those immortal heroes who sacrificed their lives on the altar of science, we must admit a lack of enthusiasm on our part when we witness such foolhardy experiments as performed by Garnault and Pettenkofer. Suppose Garnault had succeeded in producing localized tuberculosis at the point of inoculation, which he did not; it would only prove what has already been irrefutably established by the dozen or more cases of accidental inoculation with bovine tuberculosis reported by Ravenel and others.

Again, suppose Garnault should succeed in producing generalized tuberculosis by intravenous injection, a method which he contemplates employing; it will only prove at most that bovine tuberculosis may be transmitted in a direct and certainly unusual manner, but it will not throw the slightest light on the debated question as to the possibility of acquiring tuberculosis from ingestion of tubercular

milk or meat. On the other hand, negative results would not in the least support Koch's assertion, since Dr. Garnault may possess an individual insusceptibility to the disease in any form, just as the negative results which fortunately followed Pettenkofer's ingestion of a pure culture of cholera bacilli did not prove that the latter are not the cause of cholera.

It is to be remembered that in investigations involving experiments on man or animal the experiments must be repeated to such an extent as entirely to exclude the personal equation of the experimenter and the individual characteristics of the subject experimented upon. Unless this is accomplished, the experiments are subject to error and therefore of little value. Our famous yellow fever commission has certainly shown the necessity of repeated and crucial experiments in establishing a scientific fact, and it is on account of the thoroughness of their work that the etiology of yellow fever, in so far as its relation to mosquitoes is concerned, was irrefutably established. Experiments like Garnault's, on the other hand, prove nothing one way or another, and are of the nature of fanatical suicides, such as are of such frequent occurrence among religious monomaniacs.

A Word About Nomenclature.—We publish in our column of "Current Comment" a list of chemical terms that was recently taken from a German periodical by one of our contemporaries. This kind of logorrhea or logomania is a besetting sin of the chemists. It tends to make science ridiculous, and is an evidence of decadence rather than of progress. There can be no utility in such an unpronounceable and unrecognizable nomenclature.

The degeneration of a national literature is usually marked by a corruption of the national language, and this corruption is shown both by a disregard for literary style and by a labored and verbose terminology. It was so in the last stages of Greek and Latin literature. Let us hope that this period is not at hand for English and American scientists, and that a twenty-syllable nomenclature will be left to the exclusive use of German chemists.

The Journal of Cutaneous and Genito-Urinary Diseases is about to change hands. In the December number Dr. James C. Johnston and Dr. George K. Swinburne, the retiring editors, deliver a graceful valedictory. The journal in future will be devoted exclusively to dermatology and syphilis. There is no very logical relationship between cutaneous diseases and diseases of the genito-urinary appa-

ratus, and we are not surprised that the two specialties are to separate their interests. The journal has been well conducted by its retiring editors, and we wish it a full measure of success under its new management.

Current Comment.

ENDOWING MEDICAL SCHOOLS.

If Chicago sees organized, a great medical school in which the professors are fully paid, give all their time to their teaching and can work independent of tuition fees, remitting these for promising students, exactly as is done in university work, it is a mere question of time when historic schools like those in this city will find themselves distanced, unless they also are provided with endowments. With far-sighted wisdom, the University of Pennsylvania has for some time been working in this direction under the broad-minded policy of its provost. Harvard has already secured an endowment for its medical school. Jefferson College is moving in the same direction. If Philadelphia is to remain a center of medical research, endowment for its great medical schools must come at once and with the same liberality which endows higher education in other fields.—*The Philadelphia Press.*

ONE LEG TOO MANY.

Christian Scientists stand to-day where the Mormons stood fifty years ago in faith healing. Brigham Young once answered a man with a wooden leg who wanted his real one restored, that it could be done, but he would have three legs at the day of judgment and would thus be disqualified for companionship with the saints.—*Rev. J. M. Buckley, in a Recent Address.*

WHAT'S IN A NAME.

The *Practitioner* protests that new words must be invented to express new ideas, and that the "new wine of science cannot be poured into old verbal bottles without disastrous results." Nevertheless, the *Practitioner* is fain to admit that, especially in the department of pharmacology, there is much room for reform, adding in illustration of its opinion that, in a German periodical which happened to be at hand, it was recorded that two learned pundits who tested the anesthetic properties of acoin, known to chemists as "alkyloxphenylguanidin", experimented with the following formidable-sounding preparations:

1. Triphenetylguanidinchlorhydrate.
2. Di-p-phenetyl-mono-anisylguanidinchlorhyde.
3. Triparaanisylguanidinchlorhydrate.
4. Diparaanisylmonophenetylguanidinchlorhydrate.
5. Diphenylmonophenetylguanidin.
6. Di-p-phenetyl-mono-ortho-phenetylguanidin.
7. Di-phenetyl-mono-phenylguanidinchlorhydrate.
8. Di-p-phenetyl-mono-ortho-anisylguanidinchlorhyde.
9. Di-p-phenetyl-mono-p-tolylguanidinchlorhyde.
10. Di-p-tolyl-mono-p-phenetylguanidinchlorhyde.

—*The Hospital.*

Correspondence.

A QUESTION OF TECHNIQUE IN BRAIN SURGERY.

By W. W. KEEN, M. D.,
of Philadelphia.

To the Editor of the *Philadelphia Medical Journal*:

In the admirable paper of Dr. Mills in last Saturday's issue of the *Philadelphia Medical Journal*, I see that he

condemns the use of the mallet and chisel for making an osteoplastic flap in the skull on the ground of the mechanical concussion that it causes. As the debate is not published with his paper, I venture to ask you to publish practically what I said in the debate on this point.

I confess that I hesitated for a good while about using the mallet and chisel in opening the skull, but finally, observing its frequent use, especially by the Germans, and that no ill results seemed to have followed, I began to use it. Since that time I suppose I have employed it in probably as many as 150 cases. I have yet to see the first instance of mischief arising from it, and German experience is to the same purport. The chisel, however, must be used, as Mr. Chiene, of Edinburgh, a good while ago very sagaciously pointed out, "not as a carpenter, but as a sculptor uses it."

The ordinary trephine followed by the rongeur, the mallet and chisel, and the Stellwagen trephine are 3 of the principal methods of opening the skull. Each has its peculiar advantages, but each also is restricted in some respects in its usefulness. The Stellwagen is the best of the 3 methods where it can be used, especially on account of its speed. Where it cannot be used, I should use the mallet and chisel, restricting their use not because I fear the concussion, but because they are not quite as speedy, though almost as speedy, as the Stellwagen trephine. In some cases, e. g., recently, when I had to turn down a large osteoplastic flap of the frontal bone, I could not have used the Stellwagen trephine to advantage. The mallet and chisel answered admirably. In a few cases, e. g., sometimes in intracranial hemorrhage, in abscess of the brain, etc., the old-fashioned trephine, followed, if necessary, by the rongeur, will do better than either of the other methods.

THE FUNCTIONS OF THE FRAENUM PRAEPUTII.

By FREDERIC GRIFFITH, M. D., of New York.

To the Editor of the *Philadelphia Medical Journal*.

A study of three thousand venereal cases occurring in the male, during a term of service at the venereal clinic at the New York Hospital (House of Relief), and from dissections made upon the cadaver, has demonstrated to the observer the rôle which the fraenum praeputii plays in health and disease. Anatomically the frænum consists of a backward folding of the mucous membrane lining of the preputial sac from the posterior aspect of the meatus urinarius. Passing as a corded septum attached to the bottom of the depression of this part of the glans it becomes continuous with the skin of the prepuce. The connective tissue fibers contained in the frænum seem to be extensions after union from those of the lips of the meatus. The functions of the frænum appear then by its elasticity to replace the retracted foreskin and to prevent the last drops from the urinary canal after urination from entering the preputial sac by capillary attraction. Proofs of these actions are shown in those cases in which from any cause the frænum has been torn through or has disappeared, as after chancroidal assault of the part. A physical condition, the result of contraction of scar-tissue replacement after damage to this part has taken place or as is manifested in a large percentage of those who have undergone ritual circumcision soon after birth when the frænum being left behind becomes bound in the scar, consists of a tightening and contraction of the lips of the meatus for the relief of which a meatotomy is oftentimes required.

Reviews.

A Treatise on Diseases of the Eye, Nose, Throat and Ear.

For students and practitioners. By various authors. Edited by William Campbell Posey, A. B., M. D., Professor of Ophthalmology in the Philadelphia Polyclinic; Surgeon to the Wills Eye Hospital; Ophthalmic Surgeon to the Howard and Epileptic Hospitals, and Jonathan Wright, M. D., Attending Laryngologist to King's County Hospital; Laryngologist to the Brooklyn Eye and Ear Hospital; Surgeon to the Manhattan Eye and Ear Hospital. Illustrated with 650 engravings and 35 plates. Lea Brothers & Co., Philadelphia and New York. 1903.

There are 28 chapters in this volume, each written by an expert in the subject considered. Of 1,238 pages, 685 are devoted to the eye, 584 to the nose and throat, and 126 to the ear. The first chapter on the "Examination of the Eye," is by Dr. Posey; other chapters follow, the titles of which will give an idea of their contents: "Physiology of Vision," by W. N. Suter; "Refractive Errors in General," by A. Duane; "Motions of the Eyeball and their Derangements," by C. A. Wood; "Diseases of Orbit, Lachrymal Apparatus and Lids," by R. A. Reeve; "Diseases of Conjunctiva, Cornea and Sclera," by J. E. Weeks; "Embryology, etc.," by H. V. Würdemann, etc. C. F. Clark's chapter on the "Eye in Its Relation to General Disease," is very comprehensive, and in it are reviewed categorically the various possible pathological conditions, with which the eye may be associated, under such headings as, "Constitutional Diseases," "Diseases of the Respiratory Tract," etc. Other chapters by C. A. Veasey and E. A. Shumway deal with preparations, and with the technique of pathological examinations of the eye. The Nose and Throat section is arranged upon pathological rather than upon anatomical lines. There are chapters upon "Histological Pathology of Diseases of the Nose and Throat," by J. L. Goodale; "Methods of Examination, etc.," by J. E. Newcomb; "Inflammatory Diseases of the Upper Air Passages: Hay Fever; Rhinorrhea; Asthma; Influenza," by C. W. Richardson, etc., giving in detail modern views on pathology and treatment. The same is true of the 4 chapters on the Ear with which the book ends. It is a question whether a system written by many authors is ever as satisfactory as a good book written by one man; also it is a question whether, in view of the enormous proportions the specialties have attained, it is wise to embrace in one book 3 subjects so large as the eye, nose, throat and ear. Certainly the doing it makes a big book. Apart from these possible faults, this volume is a very satisfactory one. Repetition, so frequent a fault in systems, has been skilfully avoided; the printing and the general arrangement are good. There are numerous excellent illustrations and some of the colored plates are very beautiful. The book without being exhaustive, is complete in all essential matters. [W. G. B. H.]

Practical Obstetrics. A Text-Book for Practitioners and Students. By Edward Reynolds, M. D., Visiting Surgeon to the Free Hospital for Women, etc., and Franklin S. Newell, M. D., Assistant in Gynecology and Obstetrics in Harvard University, etc. Illustrated with 252 engravings and 3 colored plates. Lea Brothers & Company, Philadelphia and New York, 1902. Pages 553.

An examination of the subject matter of this volume shows what was to have been expected, namely, that the well-known authors have given us a book that is practical in every sense of the word and thoroughly up to date in its teachings. It is largely based upon the clinical experience of the writers, and, while we think slightly deficient in some parts, is, on the whole, a work that can be heartily

recommended. We do not think that sufficient space has been given to the very important subject of the mechanism of labor. The mechanism of a normal labor only is described and that in rather a condensed and unsatisfactory manner. The illustrations throughout the book are numerous and descriptive, although there are but few that are original. The section on puerperal sepsis might be considerably enlarged without being out of proportion with the importance of a book of this size. The methods, however, adopted in the treatment of puerperal fever are thoroughly modern. We do not agree with the statement made on page 281 that "When a patient with a contracted pelvis is seen late in labor and the child is still alive, symphysiotomy is the operation of choice, provided that the pelvic measurements show a true conjugate of not less than 8 centimeters. If the true conjugate measures less than 8 centimeters, craniotomy, even on the living child, is usually the operation of choice." This is not the accepted teaching in this country. Cesarean section, the child living, would probably be performed in such a case by most obstetricians. We cannot see why craniotomy on the living child should be indicated at all, and personally we should perform the Cesarean section in such a case. An author's experience in a given operation is apt to incline him to its performance when probably some other operation might be more advantageously performed. The technique of asepsis and antisepsis as laid down in the book is all that could be desired. Malignant deciduoma is considered but briefly, although the fundamental characteristics of that disease are presented. Pelvic contraction receives the consideration that such an important subject deserves. We are sure that this new volume by Drs. Reynolds and Newell will find a cordial reception.

[W. A. N. D.]

Evisceration with Reduction and Recovery.—Guermonprez and Le Guet report a case of evisceration of the intestines, in a woman of 37, with pain in the left side of her abdomen. Puncture showed an abscess of the left iliac fossa. Later another abscess opened spontaneously at the umbilicus. Six months later laparotomy was performed and a dermoid cyst of the peritoneum removed. Two years afterward a tumor appeared in the cicatrix from the former operation. This hernia was kept reduced for a while by an abdominal binder. Suddenly this parted and some of the small intestine protruded through the opening. More intestines prolapsed with every movement. Reduction was impossible on account of the pain. Warm sterilized compresses were applied to the intestines during the 18 days which elapsed before operation. Reduction was accomplished with much difficulty. The edges of the opening were freshened and drainage left in place. Symptoms of peritonitis followed, but disappeared 3 days after operation. Recovery then resulted, in spite of a troublesome bronchitis. (*Journal des Sciences Médicales de Lille*, September 20, 1902.) [M. O.]

Poisoned by the Salts of Copper.—In a recent lecture on medical jurisprudence, Professor Brouardel, of Paris, discussed copper poisoning. Fifty years ago copper was commonly used by criminals for poisoning. Nowadays, however, it has been shown that metallic copper is not toxic. But cupric oxide is poisonous in large quantities. From the absorption of copper, hair, face and gums turn green. While cupric sulphate is not poisonous, cupric acetate, chloride and verdegriis are all toxic. Copper sulphate has a very disagreeable taste and acts as a prompt emetic; therefore it has not time to produce symptoms. While the symptoms resemble acute gastro-enteritis, induration of the rectum, partial atrophy of the intestine, nephritis, fatty degeneration of the heart and liver are noted. Brouardel concludes that the salts of copper in small quantities are not, as a rule, toxic. (*La Médecine Moderne*, September 17, 1902.) [M. O.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

German Hospital, Philadelphia.—Thanksgiving Day was donation day at the German Hospital, when \$9000 were received, together with over \$2000 worth of goods.

In Honor of Dr. Hughes.—A portrait of the late Dr. Daniel E. Hughes, a gift of the inmates and attendants of the Philadelphia Hospital and Almshouse, was hung in the Insane Department, November 30. The committee in charge of the tablet, which is soon to be erected in memory of Dr. Hughes, has not yet decided where to erect the memorial, which will be of bronze, to cost about \$500.

Reading Hospital, Reading.—Colonel G. S. Beck, who recently moved to Reading from Springfield, O., presented the surgical ward of the Reading Hospital with an entire new equipment, at a cost of several thousand dollars, on Thanksgiving Day.

Society Meetings Next Week.—The following societies will meet next week at the College of Physicians, Philadelphia, at 8.15 P. M.: Monday evening, December 9, Pediatric Society, an address by Dr. Jacobi, of New York, on peribronchitis and interstitial pneumonia; Wednesday evening, December 10, County Medical Society, and Thursday evening, December 11, Pathological Society, annual exhibition meeting.

The Health of Philadelphia.—During the week ending November 29, 5 cases of smallpox, with one death, were reported. Only one of these cases occurred in the Northern Home for Friendless Children, at Twenty-third and Brown streets. As this boy, a child of 6, was isolated at the beginning, no other cases have appeared in that institution. There were also reported 127 cases of typhoid fever with 12 deaths; 66 cases of scarlet fever with no deaths and 45 cases of diphtheria with 7 deaths, a decrease in all of these diseases as compared with the preceding week.

Jewish Maternity Hospital, Philadelphia.—A new department has just been established for the diseases of children, which will include a nursery for motherless infants and a special clinic for children. The physician in charge of this clinic, who is also examining physician for the nursery, is Dr. I. V. Levi. Dr. Eleanor C. Jones has been appointed consulting pediatricist to the new department.

NEW YORK AND NEW JERSEY.

Insanity in Brooklyn, N. Y.—Cases of insanity are more than twice as numerous this year as last, every month of the present year having shown an increase. During 1901, 485 persons were received in the King's County Hospital for observation as to their mental condition: thus far this year 965 persons have been sent there for the same purpose. Among the causes to explain this increase in insanity are excessive cigarette smoking, alcoholism, heredity, religion, etc.

St. Michael's Hospital, Newark, N. J.—By the will of the late Patrick Flanagan, of Perth Amboy, N. J., his entire estate, amounting to \$7000, has been left to St. Michael's Hospital, where he had been under treatment for 2 months preceding his death.

No Smallpox in Rochester, N. Y.—The Chamber of Commerce has issued the statement that there is no epidemic of smallpox in the city of Rochester. There are, however, a few isolated cases, entirely under the control of the authorities.

Cooper Hospital, Camden, N. J.—An underground tunnel is being constructed to connect the hospital buildings with the new nurses' building. This passage way will be used by the nurses in cold and stormy weather.

Dr. Lorenz in New York.—Besides operating in the New York Hospital for the Care of Crippled and Deformed Children, a department of Cornell Medical School, and the hospital for the Ruptured and Crippled, Dr. Lorenz will also operate at the Post-Graduate Hospital, while in New York next week, before his departure for Europe.

Typhoid Fever in Trenton, N. J.—During the past 4 months, over 300 cases of typhoid fever have occurred. There are now over 100 patients in the 3 hospitals of the

city, and it is said that this epidemic is the worst in the history of Trenton. As the disease is probably due to impurities in the drinking water, because of the sewage of a number of towns above Trenton emptying into the Delaware river, the establishment of a filtration plant is being agitated.

Insanity in Syracuse.—About 75% of all the patients in the State Hospital at Ogdensburg, N. Y., come from Syracuse. The proportion of the insane persons sent from Syracuse every year is much greater than from any other city in the United States, as many as 100 being sent in one year. Both rich and poor are affected.

Hospital for Workmen at the Mouth of a Tunnel.—In Jersey City, where work has been begun on the Northern bore of the tunnel which will connect New York City with Jersey City, a hospital has been erected, so that workmen who may be overcome in the tunnel will receive prompt medical aid. The men work in airlocks, and a new shift of men is sent into the compressed air every four hours. They are working under a pressure of 48 pounds to the square inch and to endure this must be sound in heart and lung. Applicants for employment are examined by a physician, and, if accepted, are paid \$4 a day. After working four hours in the tunnel, the men are brought to the surface and given broiled sirloin steaks and liquid stimulants.

An Italian Medical Certificate.—Two Italians had a fight in a street in New York City, and one of them was arrested. The following certificate was offered in evidence the next morning, in support of the complainant's story, signed by an Italian physician: "I certify that I had visited Nicola Bonanna, 50 years old, and have found in him several lesions superficial of the skin in the nose and in the face, and echimoses into the same parties; also asportation of the incisive tooth, and luxation of other two teeth in the inferior dental series, with lesion of the soft parties of the gum. This lesion is curable complexively in seven days, with doubt of the debility into the luxated teeth."

In Memory of Dr. A. M. Phelps.—Not only has the staff of the Post-Graduate Hospital passed resolutions expressing regret at the untimely death of Dr. Phelps, but similar resolutions have also been passed by the medical board of the City Hospital, New York City.

NEW ENGLAND.

American Association for the Cure of Inebriety.—The thirty-second annual meeting will be held in Boston, Mass., December 18. Papers will be read by Drs. Coles, of Waverly; Drew and Ellsworth, of Boston; Elliot, Shepherd, Osgood Mason and L. D. Mason, of New York; Rodebaugh, of Ohio; Stearne, of Indiana; Marcy, Madden, Didama, Kellogg and others. Dr. L. D. Mason, of Brooklyn, is president, and Dr. T. D. Crothers, of Hartford, Conn., secretary of the association.

Rhode Island Medical Society.—The annual meeting will be held at Providence, December 14, under the presidency of Dr. Samuel A. Welch, of Providence.

Carney Hospital, South Boston.—The new out-patient department of this hospital was opened Thanksgiving Day. The new building contains dispensary rooms, medical, orthopedic, surgical, gynecological and ophthalmological clinics, laboratories, photographic rooms, X-ray rooms, bandage rooms and rooms for the ear, nose and throat department. From 700 to 1000 patients are treated there weekly.

Hospital Cars.—Hospital cars, equipped to meet every emergency, have been introduced by the railroads of the United States and are located at stations along the line through different parts of the country. Inquiry, however, has brought to light the fact that there are none of these cars near Boston.

Foot and Mouth Disease.—On account of the prevalence of this disease among the cattle in the vicinity of Boston, England has closed all ports to cattle coming from New England, after December 5th. Other cities of the United States are taking great precautions that the disease does not spread outside of New England. Cattle are affected in the neighborhood of Boston, in Dedham, Brighton, Rock-

land, East Bridgewater, Westford, Attleboro, Barre, Hudson, Stow, Dawees and Littleton. The first case appeared in Chelsea and Watertown over 2 weeks ago, and now hundreds of cattle have the disease. It is claimed that Maine, Rhode Island and Connecticut are free from the disease. Canada and Western States have prohibited the importation of Eastern cattle.

WESTERN STATES.

Dr. Lorenz in Chicago.—It has been rumored that the University of Chicago has asked Dr. Adolf Lorenz, of Vienna, to join the faculty, conduct investigations and give lectures in orthopedic surgery. He was offered a much larger salary than he receives at Vienna. Although unable to accept at present, it is believed that Dr. Lorenz may accept the position in a few years. It has also been stated that, if he does not accept the position of professor, it may be taken by his assistant, Dr. Friedrich Müller. In that case Dr. Lorenz may come over as a lecturer on orthopedic surgery. It has also been rumored that, if Dr. Müller settles permanently in Chicago, he may establish an orthopedic hospital here. Dr. Lorenz operated upon several patients at the Wesley Hospital, November 26. He has been made an honorary member of the Alpha Omega Alpha Medical Fraternity. Dr. Lorenz left Chicago, December 2, for Washington, D. C.

Plague in San Francisco.—Prompted by the numerous complaints received from Western States, Surgeon-General Wyman, U. S. P. H. and M.-H. S., will probably call a conference of representatives of the California State Board of Health and of the different boards of health of California, in Washington, toward the end of the month, to consider the plague situation in San Francisco.

University of California.—A new laboratory of physiology is soon to be erected at Berkeley, to cost \$25,000. Dr. Jacques Loeb, the newly appointed professor of physiology, will be in charge of the new building, which will contain a large aquarium.

Hotel Hospital in Chicago.—A hospital with suites for guests and sumptuous wards for patients is soon to be erected in Chicago, at a cost of \$400,000, exclusive of land, furnishings and equipment. The hospital will be known as the Shore Inn, and will be 11 stories high. Eighty of Chicago's leading physicians have each subscribed for \$5000 worth of stock. This will be a hospital where a patient who considers his comfort of most importance can bring his family or friends and install them in luxurious suites in the building where he is being treated.

Breathing or Blowing Wells in Nebraska.—These wells are of the driven type, but are distinguished from ordinary wells by a remarkable and unexplained egress and ingress of currents of air, producing different sounds. On account of these sounds, the wells have been called breathing, sighing, blowing or roaring wells. These wells blow in for periods and then blow out again, the changes occurring with changes of the barometer or of the wind. No satisfactory explanation has as yet been found to account for the force with which the air is expelled from some of these wells.—*Science*.

University of Michigan.—Three new buildings are soon to be erected near the University Hospital, Ann Arbor. One is to be the psychopathic ward, to cost \$50,000, and another is to be the children's ward, to cost \$20,000. The endowment of the former has been given by the State; that of the Palmer ward for children consists of \$15,000, bequeathed by the late Mrs. L. M. Palmer.

Lakeside General Hospital, Milwaukee.—Articles of incorporation for this new hospital, the capital stock of which is placed at \$2500, have just been filed at Madison.

SOUTHERN STATES.

Death of Dr. Walter Reed.—The medical profession of this country could not have failed to be shocked by the announcement of the death of Major Walter Reed, U. S. A., which took place in Washington, D. C., on the 23d. of November. Dr. Reed's name is one of the most distinguished in a long line of celebrated medical officers of the Army. It

is safe to say that no member of the medical corps has ever shed greater lustre upon the Army or rendered his country a deeper service than did Dr. Reed in his daring and successful investigation into the question of the transmission of yellow fever through the agency of mosquitoes. Dr. Walter Reed was born in Gloucester Co., Virginia, September 13th., 1851. He was graduated from the Medical Department of the University of Virginia in 1869, and from the Bellevue Hospital Medical College of New York in 1872. He received his appointment as Assistant Surgeon in the United States Army on the 26th. of June, 1875, and was at the time of his death a major in the service. He was married, the maiden name of his wife being Emily Lawrence. In the course of his professional career he passed through all of the forms and grades of service of the Department. In 1890 he was sent to Baltimore to follow graduate studies in pathology and bacteriology at the Johns Hopkins University. From the beginning, he was distinguished on account of the quality of his work and the attractiveness of his personality. During the second year of his graduate studies he undertook and completed an experimental study into the causes of the hepatic lesions in typhoid fever, which study, a model of its kind, has since appeared in print and been extensively quoted in literature. After leaving Baltimore Dr. Reed became identified with the Army Medical Museum, in which he organized and developed the pathological and bacteriological laboratories which afterward became departments of the Army Medical School. Major Reed conducted the teaching and investigations of the laboratories; and it was during this period of his work that he conceived the idea of investigating the rôle of the mosquito in transmitting yellow fever. The knowledge gained through his investigations is so startling and recent that it has received the widest publicity. Among the beneficent results and one of the direct outgrowths of these studies is the abolition of yellow fever in Cuba. Warfare against the breeding places of *Culex fasciatus* and the intelligent use of mosquito-nets has brought about complete disappearance of yellow fever from Havana and other places in Cuba, and demonstrated in an adequate and startling manner the influence of etiology upon the effectiveness of sanitary measures. Never before in the history of medical science has there been such a demonstration of adequacy to deal with a serious and menacing danger upon the basis of exact knowledge. The relief to Cuba and the promise of similar relief from yellow fever to all infected areas in the Spanish Main are great; but the benefit to our Gulf and other Southern States that comes from a secure feeling of immunity from the yellow pest is not to be underestimated. This great result has not been accomplished without strenuous endeavor and even voluntary sacrifice of human life. No one will ever know how much of physical expenditure the investigations upon yellow fever cost Dr. Reed. It is not difficult to picture to one's self the doubts and despairs even arising from the experiments upon human beings rendered necessary by the exigencies and importance of the investigation. And these feelings were none the less acute because the victims volunteered services which might readily cost their lives. There is good reason to believe that Dr. Reed's health was severely shaken by the anxious experiences of this period, and he did not regain his former vigor up to the time of the illness which carried him off. Dr. Reed fell a victim to appendicitis, for which he was operated upon. While his loss is incomparably great to the Army, to the medical profession, to the science of medicine and his family, there is great comfort in the knowledge that, in serving his country and profession to the best of his high abilities, he conferred a boon upon humanity that must come to rank with the discovery of vaccination, of protective inoculation against rabies, of antitoxin for diphtheria and the mosquito agency in the spread of malaria.

Cecil County Medical Society.—This society met at Elkton, Md., November 26. Among those who read papers were Drs. J. H. Harcastle, Middletown, Del.; A. Robin, Wilmington, Del.; W. H. Skinner, Glasgow; C. M. Ellis, A. Mitchell and H. Bratton. It was unanimously agreed that a hospital was a necessity at Elkton.

A Bequest.—By the will of the late N. A. Brent \$1500

were left to the Charity Ward of the Winchester Memorial Hospital, Winchester, Va.

Phosphate Deposits Exhausted.—As no new deposits have been found and the old deposits have been exhausted, the companies engaged in mining phosphates in Alachua county, Florida, have closed their plants. It is estimated that within 2 years there will not be more than 10 mines in operation, while there are now 35.

MISCELLANEOUS.

Cholera in the Philippines.—Surgeon-General O'Reilly reports a decided decrease of cholera among the troops in the Philippines. There were only 8 deaths in the Army during October, and no case has been admitted to the hospital in Manila since September 1. There has been, however, an increase both in the cases of malaria and dysentery among the American troops in the Philippines. Cholera is still on the increase in some of the provinces.

Havana Becoming Unsanitary.—Unsatisfactory reports have come to the State Department regarding the sanitary condition of Havana. General Wood's reports for 1899 and 1900 show that the city was in a healthy condition as a result of the American methods of sanitation enforced. The State Department is advised that a relaxation of this system is taking place gradually but surely.

Physicians in Hawaii.—It has been announced that all physicians now practising medicine in the Hawaiian Islands will have to take examinations to secure new licenses, on the recommendation of the board of medical examiners recently appointed. The Japanese physicians have protested against passing new examinations. There are in all 31 physicians practising in Hawaii.

Obituary.—Dr. Harrison Steele, at Peoria, Ill., November 14, aged 66 years.—Dr. Thomas E. Powell, at Evansville, Ind., November 17, aged 55 years.—Dr. Durham M. Creel, at Industry, Iowa, November 12, aged 83 years.—Dr. A. DeV. Boggs, at Marquez, Texas, November 7, aged 58 years.—Dr. Alfred Booth, at Springfield, Mass., November 16, aged 78 years.—Dr. H. M. Craton, at Downing, Wis., November 18, aged 76 years.—Dr. Adelbert E. Burdick, at Manistique, Mich., November 12, aged 56 years.—Dr. George W. Fringer, at Pana, Ill., November 17, aged 67 years.—Dr. Henry W. Ochsner, at Baltimore, Md., November 25, aged 25 years.—Dr. Emery A. Allen, at Randolph, Mass., November 20.—Dr. Joseph A. Bubier, at Brookline, Mass., November 26, aged 63 years.—Dr. D. E. Seymour, at Calais, Me., November 23, aged 76 years.—Dr. Joseph Clarke, at Baltimore, Md., November 27, aged 78 years.—Dr. J. Landis Seitz, at Harrisburg, Pa., November 28, aged 46 years.—Dr. H. Melville Smith, at South Orange, N. J., November 28, aged 55 years.—Dr. George D. Blomer, Jr., at Philadelphia, Pa., December 1, aged 38 years.

GREAT BRITAIN. ETC.

Bubonic Plague in India.—There were 98,579 fatal cases among 127,340 cases of bubonic plague in India between April 26 and October 4, 1902. In the Bombay Presidency alone, during one week, there were 10,861 cases with 7903 deaths.

Lord Lister Again Honored.—The Copley medal has been awarded this year to Lord Lister. This medal is regarded as the "blue ribbon of science." It was founded in 1709, by Sir Godfrey Copley, for distribution to the living authors of such philosophical research, either published or communicated to the Society, as might appear to the Council to be deserving of that honor.

Fire at St. George's Hospital, London.—A slight fire occurred on the first floor of St. George's Hospital, Sunday evening, November 16, and created much excitement in one of the wards. By the time the firemen arrived, the fire was already extinguished. But little damage was done.

Gordon Memorial College, Khartoum.—This college, recently opened by Lord Kitchener, has been presented with chemical and bacteriological research laboratories by Mr. H. S. Wellcome. Dr. Andrew Balfour has been appointed director. Advantage will be taken of the exceptional opportunity thus afforded for the study of tropical diseases.

Royal Society, London.—A royal medal has been awarded to Professor A. Schäfer for his researches into the func-

tions and minute structure of the central nervous system, especially in regard to the motor and sensory functions of the cerebral cortex.

Erroneous Plague Inoculation.—The Government's project of wholesale inoculation against the plague in the Punjab has been brought to a sudden standstill, because, by mischance, the inhabitants of a village near Gujerat were inoculated with a poisonous serum, which has unfortunately caused many deaths.

CONTINENTAL EUROPE.

Virchow Memorial.—A Danish Committee, consisting of Drs. Salomonsen and Fibiger, of Copenhagen, has been formed for collecting subscriptions for the Virchow monument in Berlin.

Cancer Research in Germany.—The committee, headed by Drs. von Leyden, Kirchner and Wutzdorf, is collecting further statistics in those regions of Germany in which cancer appears to be exceedingly frequent. It is expected that physicians will be sent into these districts in order to make special studies of the cases of cancer occurring there. The German Committee claims priority in cancer research, believing that the formation of such committees in other countries followed its example.

German Medical Congress.—The executive committee, appointed last year, has decided that the congress, to have been held in Wiesbaden in April, 1903, will be held in April, 1904, on account of the International Medical Congress to be held in Madrid in April, 1903.

Smallpox in Greece.—A Vienna newspaper is the authority for the statement that smallpox is raging on the Island of Furni, in the Aegean Sea, near Samos, more than 2000, out of a total population of 2500, having died of the disease. It is said that the island has been quarantined by the Turkish authorities. Hundreds of corpses lie unburied, as the survivors fear to approach them.

Notes.—Ten years ago 10 out of every 17 physicians in Berlin did not earn more than \$750 a year, and only 250 earned more than \$2000. To-day the situation is even worse.—A curious form of mental ailment has been developed by the Russian Grand Duke Constantin Constantino-vitch. His Highness is said to be incessantly reciting scenes from Shakespeare's "Hamlet," which he himself has translated into Russian.—The native countries of the tallest and the shortest people of Europe, the Norwegians and the Lapps, adjoin each other.—In the canton of Zurich, according to the official school report for the year 1899-1900, 108,297 children were examined medically, and the ears were found in some way affected in 117 per 1000.—It is announced from Bärzingen, in Bohemia, that a wealthy citizen has just had his thirty-seventh child baptized.—Dr. Rollet, professor of ophthalmology, at Lyons, has recently performed an operation for cataract on a Calabrian wolf in the Lyons zoological gardens. The operation was exceedingly difficult, the animal having become ferocious with the oncoming of blindness.—In Germany 70 per cent. of male and 68 per cent. of female cancer patients suffer from cancer of the digestive organs.—It is estimated that in France there are over 125,000 cretins and idiots. In the eastern part of the country the proportion of cretins rises to the extremely high figure of 32 per 1,000, while goiter shows as high as 111 per 1,000.—A young Parisian woman, who recently became engaged to be married, on applying for her official papers, discovered that a mistake as to her sex had been made, and she had been put down on the register as a boy. She also discovered that the police, believing her to be a boy, had a warrant for her arrest for not presenting herself for military service. She will now have to prove her identity, and, in the meantime, the marriage has been postponed indefinitely.—A special sanatorium for women-alcoholics is being established in St. Petersburg.—France contains more people over 60 years of age than are found in any other European country. The next greatest percentage of old people is found in Ireland.—The title of "doctor" was invented in the twelfth century and conferred for the first time upon Inerius of the University of Bologna. The first "doctor of medicine" was Gulielmo Gordenio, who received his degree from the College of Aosti, in Italy, 1220.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

November 15, 1902. (No. 2185.)

1. A Clinical Lecture on the Treatment of Pneumonia.
DYCE DUCKWORTH.
2. The Diazo-Reaction in Pulmonary Tuberculosis.
RAOUL de BOISSIERE.
3. Two Cases of Hyperpyrexia, with Recovery.
ROBERT E. LORD.
4. A Case of General Pneumonic Infection in a Child of
Seventeen Months, with Bacteriological Report.
HAROLD R. D. SPITTA.
5. Concurrent Scarlet Fever and Measles in Children.
ERNEST A. DENT.
6. Dengue Fever in Penang. F. M. T. SAKE.
7. Dengue Fever in Burmah. W. G. PRIDMORE.
8. The Treatment of Ague by the Hypodermic Injection
of Quinine. JOHN SMYTH.
9. Case of Snakebite in the Lake District.
WILLIAM ALLEN.
10. Abstract of the Croonian Lectures on the Natural His-
tory and Pathology of Pneumonia.
J. W. WASHBOURN.

1.—Duckworth considers a warm bed and good nursing essential elements in the treatment of pneumonia. The diet should consist mainly of milk and beef tea. Hyperpyrexia should be treated with ice water spongings or 5-grain doses of quinine every 2 hours. Potassium citrate and ammonium acetate and 2 or 3-grain doses of quinine every 6 hours are valuable drugs in the treatment of the disease. There are some cases of pneumonia in which the use of opium is decidedly beneficial. Such cases are those in which there is no reason to suppose that the kidneys are involved. The author advises the exhibition of small doses of morphine in conjunction with compound spirits of ether when it is desired to give opium. When the heart begins to weaken and the pulse becomes irregular and small, inhalations of oxygen, hypodermic administration of strychnine and 1 or 2-grain doses of musk are indicated. He usually combines Hoffmann's anodyne with tincture of musk. If there is engorgement of the right side of the heart, high temperature, rapid pulse and a systolic heart sound which is barely audible at the aortic area, stimulants, the best of which is brandy, should be given. It is important to give the patient as much pure water to drink as possible. In the winter hot poultices may be applied to the affected side, but in hot weather cotton wool sprinkled with spirits of camphor gives very good results. [J. M. S.]

2.—As a result of the study of the diazo-reaction in pulmonary tuberculosis, DeBoisière concludes (1) that this reaction occurs in a comparatively small number of cases of pulmonary tuberculosis; (2) that when present it is usually in cases with definite pyrexia; (3) that it is associated with an advanced stage of the disease; (4) that, whilst it is present in a very large proportion of advanced cases, it is absent in a considerable number of such cases. [J. M. S.]

3.—Lord reports the case of a clergyman, aged 32 years, who, in the course of an attack of influenza, suddenly had a convulsion followed by a rise of temperature to 111.5°. The patient recovered. He also reports the case of a soldier who had been invalided home from India suffering from abscess of the liver, in whom the temperature rose to 110°. This rise was temporary, but the patient died some months afterward from exhaustion. [J. M. S.]

4.—Spitta reports the case of an infant, aged 17 months, who was suffering from pneumonia. In the course of the disease the child had an inflammation of the left elbow joint, from the fluid in which a pure culture of pneumococcus was obtained; and an empyema at the right base, which also gave a pure culture of the pneumococcus.

The pneumococcus was obtained in a pure culture from the child's blood and subsequently, on the development of meningeal symptoms, was found in the cerebrospinal fluid obtained by lumbar puncture. The patient died, and the autopsy showed bronchopneumonia, plastic pericarditis and dilated heart. [J. M. S.]

5.—Dent reports several cases of concurrent scarlet fever and measles in children. He thinks that some of the cases which have been described as examples of the "fourth disease" may be due to the poisons of scarlet fever and German measles acting together. [J. M. S.]

8.—Smyth uses hypodermic injections of quinine in the treatment of malaria. The hydrobromate or bisulphate of quinine is used in doses of 5 grains, although in severe attacks 10 grains may be given. [J. M. S.]

9.—Allen reports a case of snake bite. [J. M. S.]

LANCET.

November 15, 1902.

1. The Croonian Lectures on the Natural History and Pathology of Pneumonia. Lecture I.
(the late) J. W. WASHBOURN.
2. Presidential Address: Some Considerations upon the Possibilities of Future Legislation in Matters of Public Health. JOHN F. GORDON DILL.
3. Four Lectures on the Nature, Causes and Treatment of Cardiac Pain. Lecture III.
ALEXANDER MORISON.
4. Primary Carcinoma of the Liver; Very Rapid Growth; Great Emaciation with Increase in Body Weight; Marked Pyrexia; Duration, Four Months (?); Death. T. D. ACLAND and LEONARD S. DUDGEON.
5. Exposure of the Gall-bladder and Bile-ducts.
BILTON POLLARD.
6. A Case of Tetanus Treated with Antitetanic Serum; Recovery. W. ESSEX WYNTER.
7. The Treatment of Early Cancer of the Larynx by Thyrotomy, with an Account of Two Successful Cases. EUGENE S. YONGE.
8. A Case of Gestation and Labor at Full Term in Uterus Didelphys. J. H. E. BROCK.

1.—The Croonian Lectures on the natural history and pathology of pneumonia, prepared in rough by the late Dr. J. W. Washbourn, were delivered by Dr. Hale White and Dr. J. W. H. Eyre. They deal with lobar pneumonia. The author, in the first lecture, discusses the diplococcus of pneumonia in the following order:

Historical.	Pathogenic effects on animals.
Morphology.	Virulence.
Conditions of growth.	Varieties of pneumococci.
Vitality.	Immunity.
Action of germicides.	Serum of convalescents.
Rapidity of growth.	Methods of isolation and diagnosis.
Appearance of cultivations.	Pneumococcus in nature.
Chemical products: Toxins.	[F. J. K.]

3.—Abstract will appear when lectures are completed.

4.—Acland and Dudgeon contribute an account of a case of primary carcinoma of the liver occurring in a boy, 15 years of age. Within 15 months of the onset of the fatal illness the patient suffered from at least 3 blows on the abdomen. The first symptoms complained of were cough and the expectoration of a large quantity of black sputum; anemia developed rapidly. He also developed a sharp cutting pain confined to the right side of the chest, which compelled the patient to take to his bed. He lost flesh rapidly. He never developed jaundice, rigors or sweating. Examination of the abdomen revealed bulging of the lower ribs and sternum. There was no edema of the chest wall.

A large prominence was visible above the umbilicus, in the epigastric region and to the left of the midabdominal line. A friction sound was audible over the right hypochondriac region. The mass in the right hypochondrium was slightly irregular, but not nodular. On percussion dullness extended upward into the thorax as high as the upper border of the fifth rib in the parasternal line. The blood revealed a slight leukocytosis. The specific gravity of the urine was 1020, it was neutral and contained a slight trace of albumin. The patient had some fever. The illness lasted about 4 months and terminated fatally. The diagnoses under consideration were: (1) A subdiaphragmatic abscess pushing the liver downward; (2) abdominal abscess or abscesses of the liver; or (3) hydatid disease of the liver. The autopsy revealed a carcinoma of the liver; the organ weighing 14 pounds and 15½ ounces. The histological examination showed a spheroidal-celled carcinoma of the liver arising from the hepatic cells.

[F. J. K.]

5.—Pollard refers to 5 cases of **stones in the gall-bladder and ducts** in which he has employed with the greatest satisfaction the **incision of Mayo Robson**, and also the sandbag placed under the spine in order to push the liver forward. The incision is a vertical one, opposite the middle of the right rectus muscle, and may be prolonged upward into the angle between the costal margin and the ensiform cartilage. Pollard has found that it is unnecessary to divide the fibers of the rectus in extending this incision, but that this muscle can be readily pulled aside so that the operator is only obliged to divide the transversalis and peritoneum. In the cases referred to there was no difficulty in suturing the common duct with a small needle held in the fingers. The sandbag should be removed before introducing the drains and suturing the gall-bladder to the abdominal wall. This latter step Pollard thinks is often unnecessary, since the tube can be sutured to the gall-bladder and satisfactory drainage obtained.

[J. H. G.]

6.—Wynter reports a case of **tetanus** occurring in a man, 40 years of age, in whom the symptoms developed 10 days after a punctured wound of the foot, and which resulted in recovery under the combined treatment of antitetanic serum, bromides, chloral, physostigma and morphine. The symptoms in this case became well marked, the patient suffering frequent and severe convulsions, the temperature reaching 102.6°. The morphine produced considerable rest, and the patient began to improve 10 days after the onset of symptoms. The patient developed an antitoxin rash. It is noticeable that there was an absence of prolonged spasm or fixation of the respiratory muscles or glottis. Sixty doses of antitoxin, of 10 cc. each, were given during the course of treatment. [J. H. G.]

7.—Yonge reports 2 cases in which he performed **thyrotomy for early cancer of the larynx**, and makes a strong plea in favor of this operation. In the majority of instances epithelioma is intrinsic, being confined for a considerable period to its point of origin, usually a vocal cord or ventricular band. Lymphatic glands are not involved early and sometimes not at all. It is in this early stage of the disease that the operation of thyrotomy with excision of the diseased structure gives excellent results. In both the cases reported Yonge operated by first doing a tracheotomy and then introducing a sponge above the tracheotomy tube in order to prevent blood passing down the trachea. The growth was then excised. In one case the tracheotomy and thyrotomy were done at one sitting; in the other case in 2 sittings. The most characteristic symptom of early malignant disease is a persistent dry hoarseness, especially if occurring in a patient over 50 years of age. The other typical symptoms of this condition usually do not appear until the time when operation offers little hope. The results obtained in the 2 cases reported were excellent, the voice in one case being better

than before operation. One patient has gone 14 months, the other 15 months without recurrence. [J. H. G.]

8.—Brock records a case of **pregnancy and labor at full term in a uterus didelphys**, the patient being a multiparous woman, 35 years of age. There was no postpartum hemorrhage. The vagina contained a septum, and there were 2 distinct vaginal canals, 2 cervices and 2 uterine canals. [W. A. N. D.]

MEDICAL RECORD.

November 29, 1902.

1. Paratyphoid Fever. N. E. BRILL.
2. A Report of a Case of Successful Suturing of the Heart, and Table of Thirty-seven Other Cases of Suturing by Different Operators with Various Terminations, and the Conclusions Drawn. L. L. HILL.
3. Hyoscine in the Treatment of Drug Habits. HOWARD C. RUSSELL.
4. Inflammation and Perforation of Meckel's Diverticulum as a Cause of Septic Peritonitis, with a Report of Two Cases of Typhoid Perforation of Meckel's Diverticulum. A. E. HALSTEAD.

1.—Brill discusses **paratyphoid fever**. In conclusion he states that paracolon infections are not very rare. Thirty-eight cases have been reported during the past year. The infection is a systemic one, and its symptomatology is like that of typhoid fever, from which it can only be differentiated absolutely by the agglutination and cultural tests. The differentiation clinically between the two infections most likely depends upon the superimposed localization of the typhoid infective agent in the intestines in typhoid fever, and its probable absence in paracolon infections. The belief that typhoid fever is a specific disease has so long existed that it would be iconoclastic to disturb its place in medical nosology. The fact, however, remains, that typhoid fever is not clinically a specific entity; that organisms besides the Eberth-Gaffky bacillus may produce the clinical symptoms of typhoid fever. [T. L. C.]

2.—Hill reports a case of **successful suturing of the heart**. In Hill's patient the knife blade entered at the fifth intercostal space and, penetrating the apex of the heart, passed into the left ventricle. The wound was about ⅜ of an inch in length, and from it came a stream of blood at every systole. The heart was sutured with catgut. The pericardial sac was cleansed with saline solution and the opening closed with 7 interrupted catgut sutures. The patient made a good recovery. Hill presents a table of 39 reported cases, and he discusses the symptoms and treatment of the condition. [T. L. C.]

3.—Russell reports a case of morphine habit successfully treated with hyoscine. [T. L. C.]

4.—Halstead reports 2 cases of **typhoid perforation of Meckel's diverticulum**. He has only been able to find 2 similar cases on record. His paper includes a study of inflammation and perforation of Meckel's diverticulum as a cause of septic peritonitis. [T. L. C.]

MEDICAL NEWS.

November 29, 1902. (Vol. 81, No. 22.)

1. Preventive Medicine. WILLIAM A. HOWE.
2. Reminiscences of Nearly Half a Century in Medicine and Surgery. CHARLES K. BRIDDON.
3. The Hyoscine Treatment of a Morphine Habitue. RANDLE C. ROSENBERGER.
4. Some Phases of Infantile Feeding. EDWARD T. ABRAMS.
5. Appendicitis. LEWIS S. BLACKWELL.
6. Albargin or Gelatose Silver in the Treatment of Gonorrhea. HERMAN C. KLOTZ.
7. The Influence of Alcoholic Heredity in Diseases of Children. T. D. CROTHERS.
8. The Early Diagnosis of Intussusception. F. HUBER.

3.—Rosenberger, in the case reported, gave hyoscine hydrobromate (gr. 1-200 or 1-100) every 30 or 40 minutes to an hour hypodermically, so that he kept the patient

completely under the drug. If the heart or respiration showed signs of failure, he gave strychnine (gr. 1/30 or 1/20) every 3 or 4 hours. **The morphine was absolutely and immediately withdrawn.** After the twelfth day the hyoscine was given every 3 hours and strychnine nitrate 4 times a day. The hyoscine was stopped after the fifteenth day, and the patient gradually recovered without any desire to return to the morphine. The points of interest were (1) the total suppression of the drug; (2) the comparatively large dose of hyoscine given so regularly and persistently, 1/100 grain being given every hour for 4½ days at one period; (3) the associated kidney lesions in this case made it much harder to give a favorable prognosis. [T. M. T.]

4.—Abrams claims (1) that breast milk is the best infant food; (2) that no artificial food can or should be trusted which does not contain the essentials of breast milk, viz., fat, proteids and sugar; (3) that the elements are to be found only in milk, and cow's milk being the only one available for general use; (4) that cow's milk must be modified, because it does not contain the same proportions of the elements named [T. M. T.]

5.—Blackwell states that the mortality from this disease is about 25%. The diagnosis is materially aided by the fact that 90% of all inflammatory affections in the right iliac region are due to catarrh of the appendix. The author reports a case in which the treatment consisted in the administration of fractional doses of calomel (1/10 gr.) every hour until the bowels were moved, ¼ gr. of morphine to relieve the pain, and applications of ice to the affected part. It was noted that the pain responded much better to the cold than to the opiate. It is always advisable not to use an opiate unless it is absolutely necessary. [T. M. T.]

6.—Klotz advises the use of **argonin** and **protargol** for this condition. Argonin has the advantage of being readily soluble even in cold water, and of furnishing a solution durable for some time, at least. These 2 drugs are combinations of silver, not like argentamin nitrate, and contain 4.7% and 8% respectively of the metal. Protargol solutions remain unchanged; neither albumin, diluted sodium chloride, diluted muriatic acid nor sodium hydrate form a precipitate; it is, therefore, more able to sustain a prolonged influence on the mucous membrane, and it has been recommended to be kept in the urethra up to 30 minutes. With regard to the irritating influence on the mucous membrane, injection of 1-2000 does not cause either pain or increase of secretion. The author reports 3 cases in which **albargin** was used after more or less extended treatment, with very satisfactory results. [T. M. T.]

7.—Crothers finds that when alcoholic ancestors, even back to the second generation, can be traced, there are certain predispositions which must be considered in the treatment: (1) A tendency to exhaustion from feeble vitality and low power of restoration; (2) an unstability of cells and nerve function exists with strong predisposition to develop into some particular form of degeneration which is practically an exhaustion of the higher brain centers with craving for relief; (3) there is a special affinity for all nerve stimulants and narcotics by the higher brain centers. **The general principles governing treatment** are: (1) No form of alcohol is safe, and narcotics of any kind should be used with great care; (2) the diet should not include meats of any kind; (3) hygienic treatment is also of the greatest importance; (4) cases of this character should be guarded against any possible extreme, both in the surroundings and the physical conditions that are under the control of the physician. [T. M. T.]

8.—Huber, in the early diagnosis of intussusception, says that the onset is usually sudden; pains, colicky in character, and recurring paroxysms, repeated vomiting and bloody stools should make one suspect the condition. If there is present a tumor, "sausaged shaped," it is con-

clusive. More or less collapse or prostration is present with marked change in the face of the patient. The temperature is usually subnormal at the onset; later on sepsis, gangrene or peritonitis give rise to fever. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

November 29, 1902.

1. The Works of Edward Jenner and Their Value in the Modern Study of Smallpox. GEORGE DOCK.
2. Typhoid Fever and Drinking Water. A. SEIBERT.
3. Tent-Life in the Treatment of Tuberculosis. A. MANSFIELD HOLMES.
4. Orthoform in the Diagnosis of Gastric Ulcer. FRANK H. MURDOCH.
5. Uric Acid Bothers. WILLIAM S. STOAKLEY.

2.—Seibert has collected an immense number of statistics which are given in tabular form, showing the prevalence of typhoid fever in Europe and America and its relation to the drinking water. He finds the common chief carrier of typhoid infection to be the drinking water. He concludes that rivers, creeks, brooks and lakes in populated districts have long since become permanently infected by the typhoid bacillus. All cities and towns which are compelled to take their drinking water from lakes, rivers or brooks are in duty bound to clean the same by central sand filtration at the water works. [M. O.]

3.—See Philadelphia Medical Journal, November 1, 1902, page 631.

4.—Murdoch advises orthoform in the diagnosis of gastric ulcer. He reports in detail 2 cases showing its good effects. He always gives it in powder, finding relief follow in 20 minutes. It is especially indicated in the gastralgic form of gastric ulcer. [M. O.]

5.—In the slight ailments due to the uric acid diathesis, Stoakley advises calomel, quinine and colchicum. Other drugs which act especially upon the liver are also of service. [M. O.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

November 27, 1902. (Vol. CXLVII, No. 22.)

1. The Normal Appendix; Its Length, Its Mesentery and Its Position or Direction, as Observed in 656 Autopsies. GEORGE H. MONKS and J. BAPST BLAKE.
2. Six Cases of Rupture of the Intestines, with 4 Recoveries. F. B. LUND, E. H. NICHOLS and JOHN T. BOTTOMLEY.
3. Some Cases which were not Pernicious Anemia. JOHN LOVETT MORSE.
4. A Case of Poisoning by Thallium. WILLIAM N. BULLARD.
5. Tetany in Gastric Disorders. LAWRENCE W. STRONG.

1.—Monks and Blake's statements are: (1) The average length of the appendix in men, women and children, indiscriminately, is 7.9 cm. (3 inches), the extremes being 1 cm. (a little over 1-3 of an inch) and 24 cm. (a little over 9 1-3 inches). There is apparently no relation between the length of the body, the sex or age of the subject, and the length of the appendix, except that children are apt to have an appendix proportionately larger than adults. (2) Fully one-half of all appendices have a mesentery which reaches nearly, or quite, to the tip. Of the other half by far the greatest proportion have mesenteries reaching as far as the middle point of the appendix or beyond it. Occasionally the appendix has no mesentery at all. (3) The commonest position for the appendix is down and in, that is toward the pelvis, the appendix very frequently hanging over the brim. The next commonest position is behind the cecum. The third is down and the fourth is in. The appendix is in one of these 4 positions in about ¾ of all cases. [T. M. T.]

2.—Lund, Nichols and Bottomley report 6 cases of rupture of the intestines with 4 recoveries, and conclude from the study of these cases the following facts: (1) Too much

importance cannot be laid on the time allowed to elapse between the hour of the accident and the hour of operation. (2) Beyond the fourth or fifth hour every hour of delay adds greatly to the danger of a fatal issue. (3) We cannot wait for signs that indicate certain perforation of the intestine. (4) Do not hesitate to do an immediate operation upon a patient when you know he has a perforation. (5) In a great majority of cases we do not know, except by operation, and the best time to know is to know early, when the knowledge will be of service to the patient.

[T. M. T.]

4.—Bullard found that, in **poisoning by thallium**, the chief action seemed to be upon the heart on which it is supposed to act as a direct poison. It causes slowing and weakening of the heart's action which usually stops in diastole, the right cavities dilated. [T. M. T.]

5.—Strong, in his article on **tetany in gastric disorders**, states that the condition is a symptom-complex, indicative of an increased nervous irritability, probably central in location. The muscular spasm is a reflex phenomenon set loose by some mechanical stimulation, as vomiting or lavage, with possibly a direct action, in the case of pressure and electrical stimulation of peripheral nerve trunks. The spasm cannot, however, be produced without the antecedent nervous irritability. The chief factor in the diagnosis is the muscular spasm itself, affecting the arms in a characteristic manner. Other symptoms, while usually present, are not of absolute diagnostic value. The etiology of the underlying nervous hyperirritability is unknown. The theory of intoxication is the only one adequate to explain the condition. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 29, 1902.

1. Symmetrical Gangrene (Raynaud's) versus Endarteritis Obliterans. JAMES DUDLEY MORGAN.
2. A Simple Single-Disc Eye Mirror. The Working Ophthalmoscope for the Eye Specialist and General Practitioner, and How to Use it. HERMAN KNAPP.
3. Associated Movements of Head and Eyes. WILLIAM CAMPBELL POSEY.
4. The Present Aspect of the Tuberculosis Problem in the United States. S. A. KNOFF.
5. The Army Hospital and Sanatorium Treatment for the Treatment of Pulmonary Tuberculosis, at Fort Bayard, New Mexico. D. M. APPEL.
6. Anatomic Treatment of Fractures of the Femoral Neck. C. E. RUTH.
7. Report of Four Cases of Syphilis Mistaken for Smallpox with Remarks on the Differential Diagnosis of these Two Diseases. JAY F. SCHAMBERG.
8. Concerning some Vaccinal Eruptions. HENRY W. STELWAGON.
9. The Place and Importance in the College Curriculum of Pharmacy. J. ALLEN PATTON.
10. The Outdoor Treatment of Tuberculosis. F. E. WAXHAM.

1.—Morgan contributes an article on **symmetrical gangrene (Raynaud's) versus endarteritis obliterans**. In this article he discusses the relation of Raynaud's disease to gangrene due to endarteritis and reports 2 remarkable cases, one which occurred in a Jew, 35 years of age, in whom gangrene developed in the left leg, beginning in the toe first, gradually spreading upward. His radial arteries were found calcareous and nodular, especially to the right. An examination of the eye revealed narrowing of the vessels of the fundus, and the urine was of low specific gravity (1006), but without albumin. The patient's leg was amputated at the thigh. The arteries of the leg were found extremely calcareous. The patient died 2 weeks after the operation. The second case was that of a colored married woman, aged 35 years, who, in October, 1901, was taken with severe paroxysms of vomiting, and at this time the hands and feet felt numb. Gangrene later developed in both hands and both feet. An examination of the heart revealed a systolic murmur at the

aortic orifice, which was also heard at the apex. The arteries were soft and compressible; the urine was of low specific gravity but otherwise negative. On December 26 the right hand and the left leg were amputated, and on January 16, 1901, the right leg was also amputated. The gangrene that had developed in the left hand required no surgical treatment and healed rapidly and properly with only the loss of the nails. The patient made an uneventful recovery. The author discusses the relation of each disease to other morbid conditions. [F. J. K.]

2.—Knapp describes a **simple single-disc eye mirror** which he has constantly used in private and hospital practice for 30 years. The article contains an illustration of the instrument. [F. J. K.]

3.—Posey discusses **associated movements of the head and eyes**. He points out that, for convenience of study, the movements of the head and eyes may be classified into 4 groups: (1) Movements which are physiological; (2) abnormal independent but simultaneous movements, (3) compensatory movements and (4) related but not compensatory movements. His article contains reports of several interesting cases. [F. J. K.]

4.—Knopf discusses the **present aspect of the tuberculosis problem in the United States**. In his concluding remarks he states that we have made good progress in our antituberculosis crusade; while a few States and cities have remained stationary and some have even retrogressed, the majority report progress. Most health authorities consider indiscriminate expectoration the greatest source of infection, and antispitting ordinances have multiplied. He suggests that sanitary authorities should go a little further and not only prohibit expectoration in certain places but should also provide receptacles, so that those who must expectorate may have an opportunity of doing so without offending others or doing harm. The ideal from his standpoint would be for everybody who is tuberculous, who has a chronic nasal or bronchial catarrh or grip, who is recovering from measles or pneumonia or who chews tobacco, to use as a sputum receptacle a pocket flask which would be unbreakable and could be used without attracting attention. He then gives a description of various pocket flasks which have been recommended and other forms of sputum receptacles. [F. J. K.]

5.—See *Philadelphia Medical Journal*, June 21, 1902, page 1115.

6.—Ruth reports 15 additional cases of **fracture of the neck of the femur treated with a Maxwell dressing**. These, added to others reported by the author, makes 40 cases treated in this way. The results obtained have been most satisfactory and far superior to those obtained by any other method. In order to reduce a fracture of the neck, the thigh is flexed upon the abdomen in order to relax the psoas and iliacus muscles, then, as the limb is again extended, an assistant makes traction outward and raises the trochanter to the same level as its fellow. Buck's extension apparatus is then applied to keep up extension. Binder's board is then applied to the thigh high up and an extension apparatus applied which produces outward and upward traction of the upper third of the femur. Most excellent results are claimed from the use of this apparatus. [J. H. G.]

9.—Patton states his views regarding the place and importance in the college curriculum of pharmacy, and draws the following conclusions: (1) Better preliminary preparation is required (both general and scientific) than has been the rule for medical students. (2) The study of chemistry, botany and physics should be thorough, especially along the lines of their basic principles, before a student enters upon the medical course itself. (3) The pharmaceutical bearings of chemistry, botany and physics, as well as the general principles of pharmacy, should be considered during the first year's work in the medical school proper. (4) The next year should present the general application of the principles and practice of pharmacy to the prescribing of drugs, and should preferably be given by a teacher qualified by both pharmaceutical and medical experiences. (5) The clinical or practical year's instruction should not pass over the pharmacy of the drug treatment with a few words, but should give full directions from the pharmaceutical, as well as the pharmacological, side for the use of the drug. Whenever drug treatment is indicated, it is just as

essential to produce beneficial results for the patient as the ability of the physician to diagnose the pathological condition present, and pharmacy is as essential for therapeutics as pathology for diagnosis. (6) Pharmacy is the basic study that gives the physician the most exact knowledge possible regarding the quality of his drugs, hence should be begun in his earliest student days and continued throughout his entire college course and professional life, unless he becomes an osteopath or a Christian Scientist. (7) Adherence to the official preparations of the pharmacopeia is desirable, and more thorough instruction upon its principles will prove valuable. [F. J. K.]

10.—Waxham writes on the outdoor treatment of tuberculosis. He contends that pure air in the greatest abundance can be secured best by tent-life, and that rapid improvement follows this plan of treatment. He believes the best results are obtained by shifting the patients about, allowing them to take up their residence and outdoor life in Colorado during the summer season and permitting them to spend the winters in the same manner in Arizona or New Mexico. [F. J. K.]

AMERICAN MEDICINE.

November 29, 1902.

1. The Importance of a More Careful Examination and Treatment of Women After Childbirth.

B. C. HIRST.

2. Some Facts Which Show that the Tuberculosis Bacillus of Human Origin May Cause Tuberculosis in Cattle, and that the Morphology and Virulence of the Tubercle Bacilli from Various Sources are Greatly Influenced by their Surroundings.

E. A. de SCHWEINITZ, MARION DORSET

and E. C. SCHROEDER.

3. The Pathology of Katabolism in Relation to the Etiology and Pathology of Cancer and Allied States. (Concluded). HOMER WAKEFIELD.
4. A Further Contribution to the Study of Modern Amputations. W. L. ESTES.
5. The Use and Abuse of Bromides in the Treatment of Mental Diseases. A. R. DEFENDORF.
6. Myedema. B. C. LOVELAND.

1.—Hirst, discussing the importance of a more careful examination and treatment of women after childbirth, states that every woman should be subjected to 3 examinations after labor: one immediately, or within 48 hours, to detect the injuries of childbirth; the second before she leaves her room, to determine the position of the uterus; the third at the end of the puerperium, 6 weeks after labor, to observe the condition of all the pelvic organs and structures, of the abdominal wall and coccyx and the position of the kidneys. The existing defects of medical practice in this particular can be greatly lessened by the establishment of maternity hospitals. [T. L. C.]

2.—De Schweinitz, Dorset and Schroeder present a summary of their investigations upon the identity of human and bovine tuberculosis. As an instance they state that 3 cultures have been isolated from cases of generalized tuberculosis in children, which cultures have caused the death and generalized tuberculosis in calves of about 4 months of age, after these calves had received a single intravenous injection, an emulsion in water of 5 cc. of the respective culture. Other experiments tending to the same conclusion are mentioned in the paper and the following summary is presented: The morphological appearance of the tubercle bacilli derived from various animals is influenced greatly by the artificial media upon which the germs are allowed to grow and the length of time that the germs have grown upon such media. The virulence of the tubercle bacilli derived from various sources is influenced by their growth upon artificial media, as well as by their passage through different animals. Bacilli can be and have been isolated from children affected with generalized tuberculosis, which have been, upon subcutaneous inoculation, as virulent and more virulent for calves as the bovine bacilli used. Bacilli isolated from tuberculous children, which are very virulent for calves upon intravenous inoculation, appear also to be virulent upon subcutaneous inoculation. Several

or even one positive case of the transmission of tuberculosis to calves by subcutaneous inoculation, in which the material has been obtained from a tuberculous human being, prove positively the possibility of infecting cattle by the germ obtained from man. There is a difference in the virulence of germs isolated from different human subjects, and also a difference in the virulence of the germs secured from the different organs. That tubercle bacilli obtained from cases of human tuberculosis can produce disease in cattle is absolutely proved. [T. L. C.]

3.—Wakefield concludes his paper upon the pathology of katabolism in relation to the etiology and pathology of cancer and allied states. Tissue katabolism consists of a combination of an alkaline dissolution, and ozidation of the elements and of the excretion of the end-products. Cancers and allied states are not supernourished processes as the apparent vascularity would suggest, but are really deficient in exchange of both blood and lymph. The observed dilated vessels are probably due to vicarious circulation more than to vasomotor paralysis; still, in some cancers perhaps the latter condition is present. Malignant growths are not necessarily of bacterial origin. The sum total of all bacterial activity is the production of subkatabolism, the direct causative factor of cancer. When, from other causes of subkatabolism, aseptic cancers are caused, these are prone to infection and may or may not become infected by one or more micro-organisms. [T. L. C.]

4.—Estes adds the report of 164 single major amputations, 27 double synchronous and 3 triple synchronous operations to his statistics (194 major amputations). Only 5 of these latest amputations were done for pathological conditions, 189 were done for diseased conditions, 510 were amputations for injuries. Estes presents elaborate tables descriptive of his series of cases. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

October 2, 1902.

1. A Contribution Concerning the Pathology and Therapy of Frontal and Ethmoidal Sinusitis and Their Orbital Complications. T. AXENFELD.
2. Concerning Inoculation Tuberculosis. O. LASSAR.
3. The Question of the Communicability of Human Tuberculosis to Cattle and Goats. A. MOELLER.
4. A Further Contribution Concerning Chronic Diphtheroid Disease of the Throat. ERNST NEISSER.
5. Tissue Growth and Tumor Production, with Especial Reference to the Parasitic Etiology of Carcinoma. (Conclusion). MARCHAND.
6. The Influence of the New Tuberculin on Cell Metabolism. (Conclusion). J. MITULESCU.

2.—Lassar thinks that the fact that acute miliary tuberculosis so rarely follows upon anatomical tubercle is due either to the rapid death of the bacillus in this location or to its loss of virulence. Otherwise, one would expect in lupus, for instance, that general tuberculosis would be common. As to the frequency of verrucose tuberculosis in man, the author has looked over his statistics, finding that he has only 34 cases of anatomical tubercle in a total of 108,000 patients, and that only 4 of the 34 were butchers. He has, however, made an investigation of butchers and their assistants in Berlin, and has found that among 365 persons there were 7 instances of anatomical tubercle and 3 suspicious cases, i. e., either 1.92%, or, if all were reckoned, 3%. The local symptoms were wholly like those seen in human tuberculosis of the skin. The number of instances in which this occurred in butchers, therefore, seems larger than in other persons; and the author refers to a series of other cases reported—particularly to Ravenel's work—to show that there is good reason for thinking that infection of this kind from animals is not uncommon.

[D. L. E.]

3.—Möller fed human tubercle bacilli to calves, and also injected these animals with them, intraperitoneally, subcutaneously and intravenously. He also had the calves inhale them. He was not able to produce evidences of tuberculosis in any of these instances. He then fed the bacilli to goats, and injected other goats intraperitoneally. In the first case he found no results; in the second, local nodules of the peritoneum. These last-mentioned nodules were rubbed up into an emulsion and injected into a calf,

without result. The author reaches the conclusion—entirely unjustified, if the work of others be considered—that human tubercle bacilli do not cause disease in calves when given by the methods mentioned; also, that it is impossible, with human tubercle bacilli, to cause progressive tuberculosis in goats. [D. L. E.]

4.—The series of cases reported by Neisser is one of great importance. A child of 4 months died rapidly of diphtheria. A few days later a child in the same family acquired that disease, but recovered after the use of anti-toxin. At the same time a third child developed the disease and also recovered. This led to a careful investigation of the household, and it was found that a maid-servant had a chronic inflammation of the throat and nasopharynx. Cultures from this showed characteristic diphtheria bacilli that were virulent. It was, in other words, a case of chronic "diphtheroid" of the throat, such as has previously been described by the author and Kahner. It was found that this maid had, some months before, been acting as wet-nurse for the child that died, having nursed it for 4 weeks, after which it had been necessary to give the infant artificial food. The maid had then had hoarseness and cough, and this had continued. The infant had for 3 or 4 months been under its mother's direct care until 5 days before it was taken sick; when the maid-servant had bathed and clothed it daily. It was later found that another maid-servant, who had left the family only a few days before, had been taken sick with diphtheria immediately after leaving. It was found that the bloodserum of the servant by whom the infection was carried, showed about 2,000 units of anti-toxin. Evidently, then, she herself was protected against the invasion of the bacilli; but it was a striking fact that the bacilli persisted in her throat, in spite of prolonged treatment. The author considers it possible that the baby, being nursed by this woman, had at first been rendered immune through her milk; but that in the period of 4 months, during which time it had been on artificial food, this passive immunity had been lost. Then, when it again came in contact with this woman, diphtheria was at once acquired. [D. L. E.]

5.—Marchand gives a general discussion concerning tissue-growth and tumor-production. He expresses himself very definitely against the parasitic theory of the etiology of carcinoma. He considers that this theory can—as yet, at any rate—be brought into relation with only one group of malignant tumors. He also insists upon the fact that infectious pathogenic agents produce reactive inflammatory conditions, while in carcinoma the metastases are produced by tumor-cells that cause no reaction of infection in the surrounding tissues. He also refers to the extreme difficulty of explaining how the parasites could reach the region in which carcinoma arises, except in those instances in which it is situated at points directly accessible to the exterior. If parasites cause the disease, for instance, one would expect carcinoma of the breast to be practically always situated near or on the surface; but this very often is not the case. As to the parasites described by a large number of persons recently, and variously considered to be protozoa and blastomycetes, Marchand refers to Nösske's work, which, he believes, demonstrates that they are cell-inclusions of other nature. He ends by stating that the only satisfactory conclusion that can be reached is that the malignancy of certain tumors is explainable only upon the basis of the production of toxic substances in the life-activity of the cells, which produce alterations in the cells that interfere with their normal metabolism and with their normal structure. This change in the cells may be very different in grade and in quality. The resistance of the normal organism to the unchecked growth of its elements might be explained through the fact that normally the specific substances which favor their growth—or which damage surrounding tissues, and thus give them opportunity for growth—are neutralized. In the case of malignant tumors, however, these substances are not neutralized. [D. L. E.]

MUECHENER MEDICINISCHE WOCHENSCHRIFT.

September 30, 1902. (No. 39.)

1. The Question of Sugar Formation in the Animal Organism. H. LUETHJE.
2. The Pathogenesis of Stenocardia and Related Conditions. R. BREUER.
3. Clinical Experiences with Iodothylin. E. ROOS.
4. Experiments upon the Production of Tuberculosis by Feeding, in Cattle and Calves. M. SCHOTTELIUS.
5. Can a Considerable Quantity of Atomized Liquid Reach the Lung if the Inhalator is Properly Employed? R. EMMERICH.
6. Anästhesin: A New Liquid Anesthetic From the View-Point of the Curative Action of Anesthesia. G. SPESS.
7. A Peculiar Complication of Pulmonary Hemorrhage. H. CYBULSKI.
8. The External Examination During Parturition. G. FRICKHINGER.
9. The Poisonous Varieties of the Family Rhus: Rhus Diversiloba, Rhus Toxicodendron and Rhus Venenata. K. SCHWALBE.
10. A New Lung Test. L. WACHHOLZ.
11. Two Cases of Spontaneous Cure in Perforative Peritonitis. A. WEBER.
12. The Prophylaxis of Whooping Cough. C. STAMM.
13. Bilateral Internal Ophthalmoplegia Caused by Extract of Secalis Cornuti. P. SCHNEIDER.
14. A Case of Pleuritic Exudate Containing Tumor Pigment. RANK.
15. The Etiology of Narcolepsy. H. GULEKE.
16. Rudolf Virchow.

1.—Lüthje has repeated Cramer's experiment, who found that glycerine increased the elimination of sugar by the urine. In a dog whose pancreas had been extirpated, he found that the amount of dextrose increased extraordinarily after the administration of 50 cc. of glycerine, and that this increase was repeated whenever the glycerine was again administered. It did not occur when olive oil was given. In a second case the same result was obtained. Therefore, there can be no question regarding the formation of sugar from glycerine. In one case in which the dog was allowed to go to the terminal point of starvation and then fat administered, no increase in the amount of sugar was observed. When nutrose was administered, however, the amount of sugar was very remarkably increased. It was noted in another dog, which died shortly after the ingestion of the fat, that a considerable quantity had been absorbed. Some experiments with lecithin showed a moderate increase in the quantity of sugar in animals either starving or fed with meat. What was perhaps more remarkable was the increase in the ratio of the sugar to the total nitrogen of the urine. The same result was observed in a boy suffering from diabetes. [J. S.]

2.—Breuer, after discussing some of the various theories of stenocardia, especially those of Huchard, considers the treatment of the condition. He divides the remedies into those that are of value during the attack, especially morphine and the nitrites, and those which may be used for their prophylactic effect, especially the nitrites, potassium iodide and theobromine. He has employed various forms of theobromine, particularly diuretin, in a number of cases for several years, and finds it efficient, in true angina pectoris. It is well borne in doses of 3 to 3.5 gm. per day (45 to 52 gr.). Occasionally it produces headache. (The paper is still unfinished.) [J. S.]

3.—Roos has employed iodothylin for the purpose of reducing obesity. The diet was not altered, and often, although there was no marked decrease in the weight, there was a very great improvement in the general condition. He reported 5 cases in which he employed it in doses of one gm. (15 gr.) or less per day. In all there was consider-

able improvement. He has also observed that anemic girls are improved if small doses of the drug are given. In 2 cases of emphysema with arteriosclerosis this treatment was employed, and both had considerable subjective improvement, although no very distinct influence upon the process could be detected. [J. S.]

4.—Schottelius fed 2 calves and one cow upon the sputum of tuberculous patients, another calf and cow being kept as controls. All 5 animals were healthy. After several months all the animals were killed, the control animals found healthy, and the others infected with tuberculosis, the cow showing tuberculous enteritis and swelling of the mesenteric glands, the calves tuberculous cheesy submaxillary glands and some tuberculous mesenteric glands. There seems to be no doubt that this was an infection of animals with human tubercle bacilli, and, therefore, the identity of human and bovine tuberculosis appears more certain than before. [J. S.]

5.—Emmerich has performed some experiments upon dogs in order to determine whether or not substances can be forced deeply into the lungs by inhalation. Examination of the lungs showed him that the mucous membranes of the alveoli contained some of the salts employed, and therefore, he concludes that, properly employed, it is possible to carry medicinal substances through the nose, larynx and bronchi to the ultimate ramifications of the air channels in the lung. [J. S.]

6.—Anästhesin is the para-amido benzoic acid ethylester. It is a white, odorless and almost tasteless powder, causing a transitory burning sensation of the skin. It is not poisonous and is easily soluble in ether, alcohol, acetone, oils and, with difficulty, in water. The anesthetic qualities of this substance are slight, and it is not possible to use it in place of cocaine. On the other hand, applied to wounds it diminishes the pain, and, as Spiess believes, promotes healing. It does not seem to have the effects that chloroform and closely related substances sometimes exhibit in certain cases. It is useful in whooping cough and is probably the most valuable substance we have for dry inhalation. It is particularly useful in coryza. Applied to a raw surface it causes quick healing without any marked inflammatory reaction. [J. S.]

7.—Cybulski reports the case of a man suffering from right-sided pneumothorax who had a hemorrhage from the lung with severe dyspnea. Finally, he coughed out a peculiarly shaped mass, after which the dyspnea immediately ceased. This mass was found to be composed of fibrin, leukocytes and air bubbles. He has observed a somewhat similar case in another man, also suffering from tuberculosis. [J. S.]

8.—Frickhinger insists that among other methods of prophylaxis of puerperal fever, the elimination of as many sources of infection as possible should be practised. At the same time the examination of the patient should be reduced to a minimum. He believes that in many cases the midwife should be satisfied with a careful examination of the external genitalia, and that this will be all that is necessary for the careful conduct of the case. [J. S.]

9.—Schwalbe believes that, in the varieties of the rhus family in which it is found, the poisonous oil is in some way contained in the small hairs which are found upon the canals through which the sap flows. He has collected some interesting cases from the literature in which the poison was transmitted by an intermediary. [J. S.]

10.—Wachholz has employed Placzek's lung test and found it quite satisfactory. He suggests that it be performed with a trocar from which a lateral tube arises, through which it is united with the mercurial manometer. In several cases there were found different degrees of pressure on the 2 sides. The method, however, is considerably more complicated than Schreyer's method or test of the friability of the lungs, and must always be done by an ex-

perienced person, and then only in connection with other tests. [J. S.]

11.—Weber reports the following interesting cases: A woman of 39 had had several attacks of biliary colic. About a month and a half after the birth of her child, she had a most severe attack of colic, and the following day suddenly collapsed. The typical symptoms of peritonitis developed, and a tumor appeared in the right iliac region, extending to the right of the umbilicus. The patient gradually recovered, and since then no other attacks have occurred. The second patient, a man of 25 years, fell a distance of 15 feet and injured his left side. There was fracture of the fibula and later severe pain in the right side. A diagnosis of internal hemorrhage was made. In the course of 3 days the patient went into a state of collapse, and there were evidences of peritonitis. He gradually recovered without operation. In both cases it seems unquestionable that perforation had occurred followed by peritonitis in both of which so little of the intestinal contents had escaped into the peritoneal cavity that a general purulent peritonitis had not occurred. [J. S.]

12.—Stamm suggests that, as it is occasionally necessary for children suffering from whooping-cough to be removed from place to place, and as their parents often hesitate to pay the charges of an entire compartment, special compartments should be prepared in which they can be safely transported and which can be readily disinfected afterward. [J. S.]

13.—Schneider reports the case of a man who had difficulty in breathing in the morning. The pupils were dilated, and the power of accommodation almost completely lost. It was then found that he had been taking extract of ergot. The patient was, therefore, given a vigorous diet, the ergot stopped and he soon recovered. [J. S.]

14.—Rank reports the case of a man, 65 years of age, who had general edema, including a pleural exudate, due to carcinoma of the stomach. There was icterus, apparently as a result of metastases to the liver, and in the fluid withdrawn by puncture biliary pigments were found. [J. S.]

15.—Guleke reports a case of narcolepsy occurring in a woman, 48 years of age. She complained of sleeping frequently in the course of the day, had weakness in the legs, and had suffered for some time from enteritis and metritis. Upon examination it was found that she consumed about 2.5 liters of coffee and one liter of tea every day. He believes that narcolepsy can be considered a symptom of neurasthenia. [J. S.]

16.—An eloquent tribute on the service of Virchow in the many fields in which he was active and successful. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

October 20, 1902. (39 Jahrgang, No. 42.)

1. Flittering Scotomata and Migraine. F. JOLLY.
2. Landerer's Hetol in the Treatment of Tuberculosis of the Lungs and Larynx. H. KRAUSE.
3. Investigations upon Streptococcic and Antistreptococcic Serums. HANS ARONSON.
4. The Cause of Primary Glaucoma.

GEORG LEVINSOHN.

1.—Will be abstracted when concluded.

2.—Krause has used hetol, sodium cinnamate, by the Landerer method, for over 2 years in treating tuberculosis of the lungs and larynx. He reports 21 case-histories; 4 patients were cured, 13 much improved and 4 improved. Its effects were excellent, fever, cough, expectoration and night sweats decreasing, appetite and weight increasing. Besides, the sputum became more liquid and was thus more easily expectorated. All physical signs of the disease quickly disappeared. Krause believes that, following the

injections of hetol, a leukocytosis occurs, and the tubercles are gradually changed into connective tissue. [M. O.]

3.—Will be abstracted when concluded.

4.—Two theories have been held to explain the occurrence of glaucoma, oversecretion in the vitreous or blocked excretion in the eyeball. Increased secretion in the vitreous will push the iris nearer the cornea, so that the spaces of Fontana close, thus obstructing excretion. This change in the position of the iris is well shown by photographs of sections, and several case-histories of acute, sub-acute and absolute glaucoma follow. The anterior chambers were narrowed, and further dilatation of the pupil completely blocked excretion, causing acute glaucoma. Many details of the symptomatology and treatment are given. Iridectomy is the treatment of choice. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

October 16, 1902. (XV. Jahrgang, No. 42.)

1. The Value of the Rhodan Reaction in the Saliva in Ear Disease. G. ALEXANDER and B. REKO.
2. Janet's Method of Treating the Urethra and Bladder. LUDWIG SPITZER.
3. Metastatic Cancer of the Brain with Remarks upon Perseveration as a Symptom. ROBERT BARANY.
4. A Case of Productive Tuberculous Pleurisy.

FRANZ ERBEN.

1.—Alexander and Reko use the ferric chloride method in testing the saliva for rhodan, without relation to the side upon which the ear affection exists. They examined 85 cases. Of 35 cases of chronic suppurative otitis media, rhodan was absent in 29. After radical operation rhodan was absolutely lacking, whether it had been found before or not. In about 4 weeks after operation rhodan is generally again present. Of 20 acute cases but 2 showed rhodan. While disease of the external ear and the parotid has no effect on the rhodan secretion in the saliva, catarrhal otitis media causes its diminution or absence. This is of value in diagnosing the presence of middle ear disease. Bilateral destruction of the tympanic tissue may lead to permanent absence of rhodan. The rhodan reaction is not, however, of general prognostic value in ear disease. [M. O.]

2.—Spitzer reports his results in treating disease of the urethra and bladder with the Janet irrigation apparatus. Its employment in acute and chronic, anterior and posterior urethritis, with and without complications and in cystitis, is fully described. Its effect on blennorrhoea is better than are results achieved by any other method of treatment, even in the late stages of the disease. Peri-urethral infiltration and symptoms of severe acute inflammation are contra-indications to its use. The use of other substances for irrigation is not so good as the employment of potassium permanganate. [M. O.]

3.—Bárány reports a case of metastatic cancer of the brain, in a woman of 47, with hemiplegia, occurring suddenly, 8 weeks after an attack of pleurisy. Examination showed chronic myocarditis, right-sided pleurisy, and encephalomalacia. Death occurred one month after admission to the hospital, 6 months after the occurrence of hemiplegia. The autopsy showed primary cancer of the right lung, with metastases in the pulmonary, pleural, diaphragmatic, portal and lumbar lymphglands, liver, thyroid gland, deep glands of the neck, both hemispheres and dura mater. Headache, vomiting, vertigo and optic neuritis, the common signs of brain tumor, were absent. But hypochondria, psychical symptoms, aphasia and changes in the reflexes were noted. The occurrence of the symptom of perseveration one day only was peculiar. After 3 vain attempts at correction, it was finally corrected in the fourth attempt. The causes of the occurrence of this rare symptom were fatigue, difficulties in speech, and the wish to react to questions. Not only was it hard to think, but after thinking, it was difficult for her to express her thought. On that

one day in which perseveration was noted, it was the result of some unknown exciting cause, besides. Perseveration of ideas is less often corrected than is word perseveration. [M. O.]

4.—Erben reports a case of left-sided tuberculous pleurisy in a woman of 24, remarkable on account of the immense number of tubercle bacilli found in the effusion, and the occurrence of a tuberculoma in the canal made by puncture. The heart was displaced by the effusion, which, at different punctures, measured 3,000 cc., 3 liters, etc. There was undoubted phthisis in the left apex, and this had broken into the pleura, causing pyopneumothorax. The history is given in detail. [M. O.]

THE JOURNAL OF NERVOUS AND MENTAL DISEASE.

October, 1902. (Vol. 29, No. 10.)

1. A Study of Landry's Paralysis; with a Report of 3 Nonfatal Cases. THEODORE DILLER.
2. Note on Cell Changes in a Case of Complete Compression of the Cord. JOHN JENKS THOMAS.
3. A Case of Severe Hysterical Contracture of the Leg, and its Treatment. FRANK R. FRY.
4. Pseudo-Epilepsies, and the Relief of Some Forms by Thyroid. WILLIAM BROWNING.
5. A Case of Tumor of the Cerebellum; Autopsy.

O. T. OSBORNE.

1.—Diller, after studying a number of cases of Landry's paralysis, states that the sensory symptoms are almost constantly present and generally precede the motor paralysis by several hours or a day, occasionally by much longer periods. The most common sensory disturbance is paresthesia, but hyperesthesia, tenderness and spontaneous pain, which may be severe, are not rare. The motor paralysis is usually of an ascending type, but may be of the descending variety, or begin in all 4 extremities simultaneously. As a rule, muscular wasting does not occur, and electrical reactions of degeneration are absent, but well-marked exceptions to this rule do occur. In a few cases fibrillary twitchings are recorded. The sphincters are involved in about one-third of the cases. The 4 most constant marks of the disease are rapidly ascending motor paralyzes, lost knee jerks, absence of marked fever and preservation of the mental integrity; but occasionally exceptions do occur. [T. M. T.]

2.—Thomas, in his note on cell changes in a case of complete compression of the cord, reports a case in which the tumor appeared to be meningeal, but had almost completely replaced the cord. Below the point of pressure the cord appeared considerably atrophied. There was no lesion of the cord opposite the vertebral knuckle. There were also found diffuse nephritis and cystitis. The microscopical examination of the tumor showed it to be an endothelioma of the dura, with the peculiar concentric rings seen in the tumors called psammomata. The tumor has produced what was practically a complete compression of the cord in the middorsal region, the only axis-cylinders which retained their myelin sheaths being a very few scattered ones at the periphery of the cord, and a few at the periphery of the posterior columns. There was a marked increase of the neuroglia of this part of the cord. Above the point of compression the cord showed marked degeneration of the median part of the posterior columns and of the direct cerebellar tracts, and a more diffuse degeneration of the periphery of the cord throughout the lateral borders and along the anterior fissure. Below the point of compression the cord was smaller than normal, and there was a well-marked indentation just anterior to the point of exit of the posterior nerve roots. There was a very marked degeneration of the lateral and anterior pyramidal tracts, a moderate diffuse degeneration of the periphery of the cord in its anterior and lateral parts, and a

very slight diffuse degeneration throughout the anterior ground bundle. [T. M. T.]

4.—Browning says: (1) In the young there occurs a class of cases characterized by recurrent attacks of a heterogeneous type, that may conveniently be called "pseudo-epilepsy"; (2) this form is curable; (3) such cases, so far as here studied, are due to, or associated with, disturbances in the general tissue metabolism of the body; (4) some of these are in whole or in part of rachitic origin; (5) troubles of this kind when due to rachitis are amenable to thyroid treatment; (6) true epilepsy is not remedied by thyroid, even in a person who was once rachitic; (7) it is evident that in many cases there is a closer relationship between rachitis and athyrosis than has heretofore been recognized. There must be a relative inadequacy of the thyroid function in these cases associated with rickets. Either, as one of the author's cases indicates, there is a serious impairment of the activity of the gland, or thyroid feeding serves to burn up harmful material at large in the system. [T. M. T.]

NEUROLOGISCHES CENTRALBLATT.

August 1, 1902. (No. 15.)

1. An Unusual Case of Facial Spasm (Myokymia) Limited to the Region of the Left Facial Nerve.

M. BERNHARDT.

2. Mental Disease as a Result of Experimentally Produced Auto-Intoxication: Psychoses of Dogs With Thyropriva. F. BLUM.
3. The Subcortical Origin of Isolated Muscular Spasm: Contribution to the Symptomatology of Tumors of the Corpora Quadrigemina, with Remarks Upon the Course of the Central Tegmental Tract. J. SORGO.

1.—Bernhardt reports the case of a woman, 27 years of age, who showed a somewhat narrow opening between the eyelids on the left side, and a deeper and more distinct nasolabial wrinkle on the same side. There was no history of facial paralysis, and the patient had complete control over the muscles of the left side of the face. She had no pain and no tender points. There was a persistent fibrillary contraction of the muscles of the left side of the face. Bernhardt regards these movements as similar to those of myokymia. He does not believe they belong to ordinary facial spasm. There was only one condition which seemed to indicate the existence of a neurotic tendency, namely, the occurrence of headaches and nausea and vomiting with scotomata about twice a month. Some improvement occurred after the employment of the weak galvanic current and the administration of bromide of potassium. [J. S.]

2.—Blum has observed that dogs from whom the thyroid gland has been removed, and whose symptoms were rendered milder from careful dieting, suffered from hallucinations, snapping in the empty air or behaving peculiarly in their cages, often seriously injuring themselves. Sometimes they became distinctly idiotic and occasionally showed curious anomalies of movement, marching, going backward or lying down and working their legs in the air. Cramp rarely occurs. The dogs usually die as a result of cachexia. In these cases evidently myxedema and cretinism were not the only disease conditions present.

[J. S.]

3.—Sorgo, after a careful histological examination of his case, found the following groups of fibers destroyed. Those of the anterior and posterior corpora quadrigemina on the right side; of the oculomotor and trochlearis nuclei on both sides, the right sensory trigeminal root; both longitudinal posterior fascicular fibers and many groups of fibers in the immediate neighborhood. The subthalamic region could not be carefully studied on account of injury during the removal of the brain. The fibers in the right crus were not degenerated. In the medulla the pyramidal tracts were not degenerated, but a group of fibers were found in the central tegmental region in which degeneration could be traced both above and below the lesion. This group of fibers is very carefully described. The inter-

esting feature of the case is the occurrence of the persistent clonic spasm without involvement of the cortex, without headache, vertigo or vomiting, without choked disks or disturbance of hearing. The diagnosis oscillated between a focal lesion of the base, involving the right crus, and a lesion in the corpora quadrigemina or its neighborhood. Solitary tubercle of the base might have fulfilled the symptoms. There was no reason to suppose the existence of a thrombotic condition, and tumors seemed unlikely because none of the usual symptoms were present. Multiple sclerosis could not positively be excluded.

[J. S.]

August 16, 1902. (No. 16.)

1. Pupillary Sluggishness in Accommodation and Convergence. J. STRASBURGER.
2. Multiple Neuritis in Combination with Basedow's Disease. T. DILLER.
3. Changes in the Spinal Cord of a Case of Old Amputation of the Forearm. L. ROSENBERGER.
4. The Tract "X" in the Lowest Cervical Region of the Spinal Cord. P. STEWART.
5. The Subcortical Origin of Isolated Muscular Spasm: Contribution to the Symptomatology of the Corpora Quadrigemina, with Remarks Upon the Course of the Central Tegmental Tract. J. SORGO.

1.—Strasburger reports the case of a young man whose right pupil reacted to light and accommodation; the left did not react to light and very sluggishly to accommodation, requiring 4 seconds for the completion of the action. After repeated attempts, however, the pupillary movements became more rapid. The patient had a marked neuro-pathic heredity. There was a slight increase in the right knee jerk, dorsal flexion of the right great toe, some nystagmus when the patient looked to the left was also present, and Chvostek's symptom on the left side. Treatment with potassium iodide had no effect, with the exception that the facial phenomenon disappeared. There was a moderate intention tremor of the hands, especially on the right side. In 2 children suffering from hereditary syphilis a similar pupillary phenomenon was observed.

[J. S.]

2.—Diller reports the case of a woman of 46 years, who had **exophthalmic goiter**. She became excitable, apprehensive, developed uncontrollable vomiting and finally died. During the latter part of her illness she developed pains in the entire body, the limbs were tender, she had hallucinations, there was muscular degeneration, although the knee jerks were increased. He believes that the rapid development of the symptoms indicated the action of an active toxin that probably was secreted by the thyroid gland. He believes that if this theory is accepted we must also accept the theory that the thyroid is responsible for Basedow's disease, and that it can secrete a poison that causes multiple neuritis. [J. S.]

3.—Rosenberger, having an opportunity to examine the spinal cord of a woman whose left arm had been amputated 30 years before her death, describes the changes in the nerve cells. These consisted in a distinct degeneration in the antero-external group of cells in the anterior cornua.

[J. S.]

4.—Stewart calls attention to an error made by Spiller in the description of the tract "X" that was originally described by the former. [J. S.]

5.—Sorgo, in further discussion of his case, calls attention to the fact that bilateral trochlearis paralysis associated with bilateral oculomotor paralysis is strongly in favor of the localization of the lesion in the corpora quadrigemina. The absence of general brain symptoms, however, can only be explained by supposing that a collateral circulation for the cerebrospinal fluid was provided from the choroid plexus. The increase in temperature is not rare in brain tumors. It must always be carefully determined whether this is equal on both sides, and not due to vasomotor influences. The absence of disturbances of equilibrium seems to show that if this occurs it indicates involvement of the cerebellum. Athetoid movements occur very frequently in connection with tumors of the corpora. The spasm in the arm, commencing, as it did, in the muscles of the thumb and gradually extend-

ing to other groups of muscles, can be explained only with difficulty, excepting by ascribing it to a gradual invasion of the cortex. [J. S.]

September 1, 1902. (No. 17.)

1. The First Symptom and the Significance of the Achilles Tendon Reflex in Tabes. S. GOLDFLAM.
2. Casuistry of Luetic Epilepsy. J. FEINBERG.
3. Dietetic Treatment of Epilepsy. H. SCHNITZER.
4. The Subcortical Origin of Isolated Muscular Spasm: A Contribution to the Symptomatology of Tumors of the Corpora Quadrigemina, with Remarks upon the Course of the Central Tegmental Tract.

J. SORGO.

1.—Goldflam, having observed that in early cases of tabes the typical triad of symptoms is not always present, that is to say, pains, loss of knee jerks and the Argyll-Robertson pupil, has attempted to discover by investigation which symptom actually is the earliest. He reports, as an example of a very early stage of the disease, the case of a man, 46 years of age, who for 16 years had had fulgurant pains in a localized area on the legs. No other symptoms could be recognized. Six years later it was observed that the pupils were narrow and did not react to light. The left Achilles tendon reflex was absent, and all the other reflexes were normal. Later the other Achilles tendon reflex was lost, and all the characteristic symptoms of tabes appeared. Goldflam believes, as a result of observation in this case, and some others, that the **earliest symptom is the lancinating pains**, and these, when typical, are perhaps the most characteristic symptom of tabes. He believes the **Achilles reflexes are just as important as the knee jerks**, and that changes in them are of great significance as a symptom of spinal disease. Goldflam agrees with Babinski that in tabes they are often affected before the knee jerks. [J. S.]

2.—Feinberg recognizes 2 types of **syphilitic epilepsy**—that without cerebral disturbances, and that with cerebral disturbances. In both of these the attack resembles functional epilepsy, and exhibits all the variations that may occur in the latter condition. He reports a number of interesting histories. One, a man of 44 years, had 4 attacks following infection 3 years previously. The patient was put upon specific treatment, and no further attacks occurred. The second patient, a man of 38, 3 years after infection had an epileptic attack. He was put upon specific treatment, and the attack did not recur. The third case belongs to the second type. A man, 36 years of age, with scrofulous children, 5 years after infection suddenly developed headache and confusion of thought with loss of the power of naming objects. Two years later he had a second attack in which aphasia was the most prominent symptom. On the third occasion he had paraphasia followed by falling to the ground and complete confusion. Finally, after the fifth attack, a diagnosis of syphilitic epilepsy was made, and after specific treatment he recovered completely. Two other cases exhibited the Jacksonian type. A woman of 24 developed right-sided unilateral hemiplegia. Later she developed hysteria, but recovered entirely upon specific treatment. Second, a man of 33, 9 years after infection developed a convulsive attack commencing in the left leg and gradually extending over the body without loss of consciousness. There was also aphasia and finally hemiparesis on the left side. The patient recovered after specific treatment. Finally there are some patients in whom injury to the head predisposes to local conditions. A woman, 38 years of age, who had been epileptic for 9 months, was admitted to the hospital, and many symptoms of constitutional syphilis were found. Specific treatment failed to improve, the patient died, and at the autopsy an encapsulated abscess was found in the left frontal lobe. There was no history of injury. In another case the symptoms resembled those of syphilitic meningitis with numerous epileptic attacks. The patient recovered on specific treatment, the symptoms being variable and indicating a variety of focal lesions. [J. S.]

3.—Schnitzer has employed the diet recommended by Balint in 16 cases of **epilepsy**. This consists of about 2 gm. of sodium chloride and 3 gm. of sodium bromide added to the food every day. The diet employed in these cases consisted of milk, butter, eggs, bread and fruit. Most of

the patients had been inmates of the institution for a long time. The treatment was continued for 42 days. The results were not particularly satisfactory. Two of the 16 patients remained free from attacks; in 2 the attacks only occurred in the early stages of the treatment; in a fifth there were 2 slight attacks in the beginning. Another patient who had had attacks almost every day had only 4 during the 42 days. In 6 others the attacks became very much less frequent during the latter stages, and in 2 others there was a slight diminution in the number of attacks during the last 14 days. Four patients appeared somewhat worse, and in none was there any improvement in the mental condition. It must, however, be noted that in all the cases the attacks were considerably lighter than upon the ordinary diet of the institution. The treatment must be regarded merely as a useful addition to our present therapeutic measures. [J. S.]

4.—Sorgo, in concluding his report of the case, insists that isolated cramps can be produced by irritation of the subcortical centers, and that these cramps can spread from one muscle group to another exactly as in Jacksonian epilepsy. This probably indicates that the fibers of individual groups of muscles run to approximately the same areas. The only way the distinction between these subcortical forms of Jacksonian epilepsy and those occurring in the cortex can be made, appears to be the involvement of the facial and hypoglossal nerves. Under these circumstances there is every reason to suppose that the corpora quadrigemina are the parts involved. [J. S.]

DEUTSCHE ZEITSCHRIFT FUER NERVENHEILKUNDE.

Band 22. Heft 1 und 2.

1. A Case of Stab Wound of the Spinal Cord (Brown-Sequard's Paralysis) With a Special Consideration of the Ability to Localize. SCHITTENHEIM.
2. A Case of Brown-Sequard's Unilateral Paralysis After Stab Wound of the Spinal Cord. FUERNROHR.
3. Experimental Contributions to the Knowledge of the Inhibition of the Reflexes After Unilateral Section of the Spinal Cord. KRON.
4. The Histology and Pathology of Brain Tumors. BIELSCHOWSKY.
5. Remarks Upon the Pathological Anatomy of Syphilis of the Central Nervous System. ERB.
6. Transplantation of Tendons in the Spinal Paralysis of Children. VULPIUS.
7. Clinical Contributions to the Knowledge of Hereditary and Family Spastic Paralysis. KUEHN.
8. Relations Between Myoclonia Familiaris and Congenital Myoclonia. LUNDBORG.
9. The Babinski Toe Reflex in Physiological Conditions. BICKEL.
10. Brief Communications: (1) The Polyclinic for Nervous Diseases in Strassburg, FURSTNER. (2) Lesion of the Conus Medullaris and Cauda Equina. ROSENFELD.

1.—Schittenheim reports the case of a man who was stabbed in the back between the fifth and sixth cervical vertebrae with a broad-bladed knife. Immediately after the injury the patient had complete paralysis of the right arm and leg, and difficulty in micturition and defecation. Several months later there was slight motor paralysis on the right side, and some sensory disturbance on the left, particularly loss of pain and temperature sense. A most careful description of the sensory phenomena is given, and Schittenheim discusses the exact localization of the injury. An interesting symptom was the condition of the localization sense. This was found to be completely lost in regions in which motility, deeper sensation and touch sense were intact, and when analgesia and thermalgesia were absent. It was variously disturbed in other regions. He believes the trouble was due to injury of the posterior columns and the cerebellar and motor lateral columns of the right half of the spinal cord. [J. S.]

2.—Furnrohr also reports a case of stab wound of the spinal cord causing Brown-Sequard's paralysis. Immediately afterward the right leg was paralyzed, and there was a peculiar feeling in the right side as far as the nipple. Nine weeks later slight movement could be performed with the right leg. There was thermanesthesia in the left leg, the

tendon reflexes were increased on the right side and slightly increased on the left side, and there was also ankle clonus on the right side. The tibialis and toe phenomena of Strümpel were both present in the right leg. A careful examination of the patient showed diminution of the pressure sense and position sense on the same side as the motor paralysis—that is the right—and on the other side, paralysis of the pain and temperature senses. There were also some peculiar subjective paresthesiæ on the right side. [J. S.]

3.—Kron has performed a number of experiments upon dogs, making a **hemisection of the spinal cord in the upper cervical region**, then testing various reflexes in these animals in order to determine what effect this lesion had. The essential conclusions are as follows. After section of the spinal cord there is inhibition of the reflexes which is much more transient than is generally supposed. Therefore, there does not appear to be any especial reason to suspect the existence of inhibitory fibers. After hemisection of the cord respiration ceases on the corresponding side. This is restored as soon as the phrenic nerve on the opposite side is cut. The reflexes recur at varying intervals that depend largely upon the level and upon the severity of the lesion. There is no essential difference between the phenomena in animals and in human beings: the differences are only slight. [J. S.]

4.—Bielschowsky reports 4 cases of **brain tumor**. The first occurred in a girl of 18 years who had nausea and headache, the latter becoming so severe that she was brought to the hospital, where bilateral choked disk was discovered. Later she had weakness in the legs, then staggering gait, loss of vision and some impairment in the heart. There was then loss of power in the right arm. She was re-admitted to the hospital and divergent strabismus was noted. There was also a distinct Romberg symptom and gradually increasing somnolence, then a series of convulsions, the patient finally dying. A tumor was found involving the corpora quadrigemina and apparently proceeding from the choroid plexus. There is a careful description of the histological changes including the appearance of the tumor, which was apparently epithelial in structure. The case was characteristic because paralysis of the muscles of the eye and ataxia were both present. The second patient, a woman of 42 years, had had symptoms of cerebral trouble for 3 years. There was headache, tinnitus, and attacks which consisted in tremor with numbness in both arms. Then there was impairment of vision and finally complete loss of sight. When admitted to the hospital she was found to be completely deaf in the right ear; hearing was normal in the left ear, and taste and smell were not disturbed. There was papillitis in both eyes, weakness in both arms and stumbling gait. She developed slight paralysis in the lower half of the right side of the face, which finally became complete, with some reactions of degeneration in the muscles. The patient finally died as the result of a bed sore. At the autopsy a tumor was found at the base of the cerebellum pressing upon the right side of the pons and destroying the right acoustic and facial nerves. This tumor appeared to be a fibroma, and to arise from the pia. It is interesting that the hemiplegia was not alternating; it was homolateral. In the third case, that of a man, 27 years of age, the patient had noticed loss of power for half a year. There was some headache, vomiting, bilateral choked disk, staggering gait, and 3 days after admission, in the course of a severe attack of headache with frequent vomiting, the patient died. A glioma that had undergone cystic degeneration was found occupying the floor of the fourth ventricle. At the autopsy this was supposed to be a cysticercus. The fourth patient, a woman of 24 years, had suffered from vertigo for a number of months. Later the gait was uncertain and staggering, and for about 4 weeks before admission she had had frequent vomiting. When admitted, bilateral choked disk was present; there was tenderness over the left occipital lobe and staggering gait, but no disturbance of sensation. The patient died suddenly, and at the autopsy a tumor was found in the right frontal lobe, cystic in character, which proved to be an angioma. The interesting symptom in this case was the long-persisting vertigo. [J. S.]

5.—Erb, after discussing the manifold lesions and types of disease produced by syphilis, and reaching the conclusion, in common with other pathologists, that it is impossible to state positively in many instances whether or not a lesion is syphilitic, has undertaken to collect from the literature a number of presumably syphilitic cases with degenerative lesions, and to classify them according to their different types. The first type includes cases of gumma, meningitis, myelitis, arteritis, with direct or focal degeneration of known specific character, in all of which luetic infection was definitely known or probable. The second class includes typical or primary direct degenerations not apparently specific, associated with more or less certain specific changes in the meninges, the cord and the blood-vessels. This includes a number of nontabetic scleroses. Finally, a third group consists of primary scleroses in certain syphilitic individuals without associated specific lesions. Of these he collects cases representing simple syphilitic disease of the pyramidal tracts, combined systematic disease, systematic disease of the posterior columns, especially tabes and primary nuclear degenerations, atrophy of the eye nerves, etc. He summarizes his results as follows. That there are, in some cases of unquestionable syphilis of the central nervous system, changes that resemble primary degenerations; in other cases, in which the primary degenerations form the predominant feature of the disease, there are slight syphilitic changes, and finally primary degenerations without syphilitic changes in patients who have certainly been infected with syphilis. He, therefore, believes that there is no reason for supposing that the absence of syphilitic lesions, as in the third group, is sufficient proof that the process is not syphilitic. In fact, there can be no doubt that syphilis is frequently the cause of various forms of degeneration, particularly that involving the tracts. Regarding the nature of syphilis, he suggests, as has often been suggested before, that the analogy between syphilitic and tuberculous lesions leads to the supposition that the infecting organisms must be very similar. It is interesting, however, to note how differently the two processes act upon the central nervous system, for there is no evidence that tuberculosis has ever been associated etiologically with either progressive paralysis or tabes. This seems to prove that the localization of the process in these diseases is not due to some weakening factors that act particularly upon the involved tissues. [J. S.]

6.—Vulpinus discusses the **transplantation of tendons in the spinal paralyses of children**. This is, of course, useful only in partial paralysis, and may possibly be of use in other forms of paralysis, such as that following injury as well as anterior poliomyelitis. He mentions some cases in which this transplantation was performed upon the thigh. In one instance the tendon of the semimembranosus was transplanted into the tendon of the quadriceps, at the same time the semitendinosus was cut in order to relieve the flexor spasm, and finally an osteotomy was performed in order to correct genu valgum. Seven months after the operation the patient was greatly improved and the gait was almost normal. Another patient, a boy of six years and a half, had had poliomyelitis in the first year of life, causing extensive paralysis in both legs followed by extreme deformities. A series of operations was performed to correct these deformities. The tendon of the extensor hallucis was transplanted to the tendon of the tibialis anticus; the tendon of the biceps was transplanted to the tibia, and finally, after numerous tenotomies, the leg was straightened. In order to promote extension from the knee, the tendons of all possible muscles were transplanted to that of the quadriceps. Seven months later the patient was able to walk without apparatus, and, although there was complete ankylosis of the left knee, there was a fair degree of flexion and extension in the right knee. There was also considerable increase in the power of the muscles and an extraordinary improvement in the condition of the patient. [J. S.]

7.—Kühn reports the following interesting instance of **hereditary and family spastic spinal paralysis**. Nothing could be learned concerning the grandparents of the patient, but the father had always—according to report—had some difficulty in walking. The mother had always been healthy. Of 7 children, one, a daughter, died in infancy. 2

other daughters were married and had healthy children, a third emigrated, and the three sons suffered from a disease apparently similar to that described in the father's case. At the age of 18 or 19 one son began to experience pains in the spinal column in the region of the hips. Gradually the gait grew worse, but his arms remained healthy throughout, and he suffered from no other symptoms. He was married twice but had no children. Investigation showed rather typical spastic paraplegia, the electrical reactions of the muscles were normal, the patellar reflexes were increased, the Achilles tendon reflex and ankle clonus were not present, Babinski's phenomenon was not present, and Strümpel's tibialis phenomenon was pronounced on both sides. The second son also commenced to notice his disease about the eighteenth year. The symptoms were similar to those of his brother. The third son noticed the symptoms earlier, in the tenth or twelfth year. Kühn also reports a fourth case, with somewhat similar symptoms. The patient began to notice symptoms of his trouble about his twenty-second year. His gait gradually became impaired, and finally it was necessary for him to use a cane. The arms were normal, the muscles showed resistance to passive movements, the reflexes were increased, there was ankle clonus and Babinski's phenomenon was present. The tibialis phenomenon of Strümpel was present in both legs. This patient had 4 brothers, all of whom died in infancy, and three healthy sisters. His father had always been healthy. Kühn, in discussing these cases, states that it is difficult to understand what part heredity plays in the development of the disease. The anatomical lesion is probably primary systematic degeneration of the lateral pyramidal tracts. The prognosis is not unfavorable to life, but it seems impossible to produce any effect upon the disease by treatment. [J. S.]

8.—Lundborg contributes a discussion of the relation of familial myoclonia to congenital myoclonia, giving the following interesting comparative table of the symptoms.

Congenital Myoclonia.	Dementia Myoclonia or Familial Myoclonia.
(1) A Chronic disease probably caused by some auto-intoxication.	(1) A chronic disease, probably caused by some auto-intoxication.
(2) Symptoms are present at birth or appear in earliest childhood, rarely later.	(2) Symptoms occur in later childhood, but not often afterward.
(3) Usually affects several persons of the same sex, and often several brothers or sisters of the same family.	(3) Affects several brothers and sisters of the same family and not rarely several families in same group.
(4) Psychotonic reactions.	(4) Sometimes psychotonic reactions.
(5) Slight psychical disturbances may occur from time to time in various forms, as weak-mindedness.	(5) Pronounced psychical disturbances occur in the course of the disease and terminate with distinct dementia.
(6) The striated muscles are affected by a tonic spasm which differs in intensity in different muscles and rarely affects those of the eye.	(6) The striated muscles are affected by a spasm which at first is tonic, later clonic. It varies in intensity in different muscles and the eye muscles are rarely affected.
(7) Alcohol has a favorable action in moderate doses. Fever also produces improvement, but cold and fatigue make the symptoms worse.	(7) (The same).
(8) Mechanical irritation causes spasms of the muscles which gradually relax.	(8) (The same).

Lundborg believes that there are so many points of similarity in the two diseases, that the apparent intimate relation cannot be ascribed merely to accident. There is much evidence to prove that myoclonia is due to a poison generated somewhere in the system. [J. S.]

9.—Bickel has tested the Babinski reflex in more than 300 persons, mostly women and children, and found it positive whenever there was reason to believe in the existence of a lesion in the pyramidal tracts. It is also occasionally positive in hysteria, rarely positive in healthy adults, sometimes slightly indicated on one side. Occasionally it was positive at one investigation and negative at another. Often, however, in persons with a healthy nervous system, in whom the reflex was negative while awake, it became positive during deep sleep. Under these circumstances it was usually energetic and not slow as in pathological conditions. Also in cases of chloroform narcosis the reflex was found to be positive, and therefore Bickel concludes that it is an indication of functional inactivity of the cortex. [J. S.]

10.—Rosenfeld reports the case of a man, 28 years of age, who received a severe injury in the lumbar portion of the spinal column, causing immediate paralysis of the legs. Some months later on examination there was found to be increase in the reflexes in the lower extremities, the gait was impaired, there was loss of control over the sphincters, disturbance of sensation on the outer and upper sides of both feet, over the pubic and sacral regions and extending along the back of both thighs, that is, a typical saddle anesthesia. A diagnosis was made of a lesion of the conus medullaris. [J. S.]

DEUTSCHE ZEITSCHRIFT FUER CHIRURGIE.

July, 1902. (Vol. 64, Nos. 5 and 6.)

24. Foreign Bodies in the Respiratory Passages. SCHLENDER.
25. The Treatment of Chronic Laryngeal Stenosis. NIKOLAI WOLKOWITSCH.
26. Four Rare Cases of Abdominal Cysts. M. PENKERT.
27. Superficial Inguinal Hernia. RUDOLF GOEBELL.
28. Traumatic Pes Calcaneus. ARNOLD WITTEK.
29. A Method for Sterilizing Catgut and for Keeping it Sterile. M. CLAUDIUS.
30. Intra-abdominal Hernia. O. FUNKENSTEIN.
31. Telangiectasia of the Bladder. ALFRED BERLINER.
32. A Retrorectal Teratoid Tumor with Adenocarcinomatous Degeneration. H. GRAFF.
33. Hepatitis and Hepatic Abscess following Dysentery. KRAMM.
34. Tubercular Tumor of the Tongue Due to a Foreign Body. M. SILBERMARK.
35. Traumatic Sacral Hernia, with a Plastic Operation on the Rectum. ALEXANDER TIETZE.
36. The Symptoms of Fracture of the Acetabulum. RUDOLF GRAESSNER.

24.—Schlender gives the histories of 12 cases of foreign bodies in the respiratory passages. One patient recovered spontaneously, while of the 9 upon whom operation was performed, 6 recovered and one improved. One boy died 4 months after removal of the foreign body, another infant 2 days after operation. The 2 others died without operation, one from pulmonary gangrene, the other from asphyxia. [M. O.]

25.—Wolkowitsch reports 42 cases of chronic laryngeal stenosis, 21 of them in children under 12 years of age. In 17 of these high tracheotomy had been performed. In 17 cases intubation was the only treatment. In the other cases the larynx was divided, a plastic operation was performed to replace defects of the pharyngeal wall, or resection was done. In several of the cases intubation became necessary after operation. The results in each case are given. [M. O.]

26.—The 4 rare cysts reported by Penkert are an intra-abdominal mixed hemolymphangioma, lymphocysts of the cecum, a hydronephrotic cyst and an encapsulated peritoneal cyst. The case-histories are given in detail, with

the histological examination of the cysts. Three of these patients died after operation. [M. O.]

27.—Superficial inguinal hernia is always congenital, the testicle not having fully developed or being atrophic, while the spermatic cord is generally too short. The hernia is covered by skin and some very thin fascia only. The case-history of such a hernia in a man of 33, operated upon because of sudden strangulation, follows. The testicle was found loose in the sac. He recovered completely. The hernia was bilocular, as is well shown diagrammatically. [M. O.]

28.—After reviewing Nicoladoni's cases of **traumatic pes calcaneus**, Wittek reports 3 more cases in full, with radiographs. Pes calcaneus may be of 2 kinds, either the high muscles alone, or both superficial and deep muscles appearing paralyzed. The etiology of each case is described. The calcaneus was found in the position which it assumes normally in dorsal flexion, while the rest of the foot was in plantar flexion. Tenotomy, with tendon transplantation in some cases, is indicated. [M. O.]

29.—For sterilizing catgut Claudius uses an aqueous solution of iodine and potassium iodide. The catgut, after sterilization, is kept in a solution of carbolic acid for from one to 2 hours before being used. The details of its preparation follow. [M. O.]

30.—Intra-abdominal hernia may be of 4 kinds, through the foramen of Winslow, duodenojejunal, intersigmoid or pericecal in character. Some of these will be retroperitoneal. Funkenstein, who reviews the literature, reports a case of retrocecal hernia, with full autopsy findings and a diagram explaining the conditions found. [M. O.]

31.—Hemorrhoidal conditions of the vesical mucous membrane are not uncommon. Berliner reports a case of **telangiectasia of the bladder** in a girl of 11, who passed bloody urine from time to time. She also had a telangiectatic angioma on the right labium majus. The condition, diagnosed by cystoscopy, was cured by cauterization after suprapubic cystotomy. Later hematuria recurred. This time a calculus was found and crushed. Since then she has kept well. The condition is dangerous to life, but is easily cured by operation. [M. O.]

32.—Graff reports a case of **retrorectal teratoid tumor** which had undergone carcinomatous degeneration, in a woman of 34, married, yet never pregnant. Recovery followed operation. A full histological description of the tumor follows, with a review of the literature. [M. O.]

33.—Kramm has studied 21 cases of abscess of the liver after dysentery, in Tien Tsin. He describes the pathological anatomy, etiology, symptomatology, course, termination, diagnosis and treatment of the condition and appends 11 case-histories, in one of which simple inflammation of the liver occurred, while abscess developed in all the others. Of 9 cases in which operation was performed, 8 recovered and one died from sepsis. Chronic abscess gives an even more favorable prognosis. His operative technique follows. [M. O.]

34.—Silbermark reports a unique case of a **tubercular tumor of the tongue due to the action of a foreign body**. A woman of 58, of excellent family and personal history, first noted a growth on her tongue 9 years before, the tumor remaining small up to within 6 weeks. Then it grew, with much pain. It was extirpated, with recovery following. Histological examination showed it to be a tubercular tumor, and not a fibroid, as was supposed. This probably followed the irritation of a foreign body 9 years before. This conclusion, however, is hypothetical. [M. O.]

35.—Tietze reports a case of **traumatic sacral hernia** in a man of 61, and describes the technique of his plastic operation on the rectum, which was followed by recovery. [M. O.]

36.—Graessner describes 7 cases of **fracture of the acetabulum**, which, he believes, occurs more frequently than is commonly supposed. The symptoms are pain on pressure over the trochanter and on tapping the heel, absence of shortening of the leg, the presence of the trochanter in the Roser-Nelaton line, near the middle, showing some flattening, limited and painful internal rotation, sensitiveness in the acetabular region to deep pressure on Poupert's ligament, in the hypogastric region, etc. [M. O.]

August, 1902. (Vol. 65, No. 1.)

1. The results of Operation for Tuberculous Coxitis
WILHELM MANNINGER.
2. Retroperitoneal Tumors. OTTO HARTMANN.
3. Renal Injuries Observed in the Friedrichshain Hospital in Twenty Years. GOLDSTEIN.
4. Rare Affections of the Testicle. DERLIN.
5. Peculiar Sensations Noted after Amputation.
HILGER and VAN DER BRIELE.
6. A Case of Peritonitis following the Perforation of a Duodenal Ulcer, with Recovery after Operation.
BLECHER.

1.—Manninger reports 44 cases of **tuberculous coxitis**, 89% occurring in patients under 25 years of age. Males were but a trifle more apt to be affected than females; and the condition was found a bit more frequently on the right side. In some cases tuberculosis may be hereditary or may follow traumatism. Rarely it may follow an infectious disease. Pain was noted in the knee in 13 cases; swelling in 26 cases, and contractures in 26%. Besides, there was some limitation of function. The technique of resection of the femur by Kocher's method follows in full, with the after-treatment. Sixteen patients recovered without fistulæ; 7 recovered with secondary operations on fistulæ; 4 recovered with fistulæ remaining, a total of 67% of good results. Death occurred in 9 cases, and suppuration persisted in 5. Considering the final results, the general condition was good in half of the cases; in the other half it was very good. The table of the 44 cases reported follows. [M. O.]

2.—Hartmann reports a case of **retroperitoneal tumor** in a man of 61, causing symptoms resembling those of gastric cancer. Exploratory laparotomy showed the condition to be a retroperitoneal tumor, probably a glandular sarcoma. The diagnosis is fully discussed but can only be settled by autopsy. The patient has done well since the exploratory operation. [M. O.]

3.—In 20 years 27 cases of **renal injuries** have been treated at the Friedrichshain Hospital, Berlin. Six of the patients died, 4 from other injuries. Symptoms of subcutaneous injury to the kidney were noted in 26 cases. Nineteen of the cases occurred in men, 6 in children and 2 in women. In 25 cases the patients came under treatment in from 2 to 6 hours after injury. Their symptoms are fully described. In 22 cases the kidneys alone were injured. The prognosis depends upon whether the peritoneum is affected, recognized by pain, gradually spreading over the entire abdomen. The treatment was symptomatic, operation only being performed when absolutely necessary. [M. O.]

4.—Derlin reports 2 rare affections of the testicle, (1) hemorrhagic infarct following torsion of the spermatic cord, and (2) sarcomatous degeneration of a testicle which was still in the abdominal cavity. In the former case, a man of 64, the patient recovered after operation; in the latter, a man of 37, recovery also followed extirpation of the diseased testicle. Round-celled sarcoma was found on examination. [M. O.]

5.—Hilger and van der Briele report 4 cases in which **peculiar sensations were noted after amputation**. One patient noticed itching of the amputated foot and imagined that he was moving his toes. Another felt that his amputated foot was wholly well and intact; hearing a bell, he jumped up to run to the door, and fell and was injured. These patients feel that they still possess the extremity which has been amputated; or they forget that they no longer have it and so injure themselves. Rarely the patient does not realize whether he misses his extremity until some occasion presents for its use. The article is most interesting. [M. O.]

6.—Blecher reports a case of **peritonitis following the perforation of a duodenal ulcer**, in a man of 31, with complete recovery after operation. [M. O.]

September, 1902. (Vol. 65, Nos. 2-4.)

7. The Relations Between Syphilis and Traumatism.
P. STOLPER.
8. The Present Status of Surgery in War.
MATTHIOLIUS.
9. The Circulation in the Cranial Cavity. ZIEGLER.
10. The Indications for Trephining in Cerebral Hemorrhage with Pertussis. LOEVY.

11. The Process of Repair in the Bones of the Skull.
NELLO BIAGI.
12. A Benign Epithelioma, Probably of Congenital Origin.
GEORG PERTHES.
13. Necrosis of the Pancreas. EUGEN PEISER.
14. Congenital Cysts of the Intestine. L. GFELLER.
15. Solitary Intestinal Stenosis. REGLING.
16. Sarcoma of the Esophagus. CARL von EICKEN.
17. The Results of Torsion of a "Fatty" Hernia.
WALTHER WENDEL.
18. A New Plastic Method of Restoring Defects in Tendons. JOSEF HERTLE.

7.—In a comprehensive article Stolper discusses the relations between syphilis and traumatism, especially in reference to law, life insurance and medical jurisprudence. Among 3,000 autopsies performed, he noted conditions which made the diagnosis of syphilis certain in 61. Nineteen original case-histories follow, showing local syphilitic lesions after localized trauma, with others from the literature. The lesions were situated in all parts of the body. Small wounds may permit the entrance of syphilis. Besides, an old wound may show typical syphilitic changes, and small injuries in syphilitic patients may have grave consequences. Early antisiphilitic treatment is indicated. [M. O.]

8.—Matthiolius reviews the recent articles on military and naval surgery. The prognosis of artillery wounds is unfavorable. Yet, the surgeon of to-day is more able to treat wounds received on the battlefield than in naval engagements. He insists upon personal cleanliness in war, to prevent infection when wounded. [M. O.]

9.—Ziegler's anatomical preparations of the circulation of the brain showed that the circulations in the subdural, subarachnoid and ventricular spaces were all separate. No communications were found to explain the absorption of fluid. [M. O.]

10.—Loevy reports a trephining done for cerebral hemorrhage in a girl of 7½ years, occurring with pertussis. The indications for immediate operation were unconsciousness, convulsions, hemiplegia, aphasia, etc. Recovery followed. [M. O.]

11.—Biagi reports in full a number of experiments showing the process of repair in the bones of the skull. As long as periosteum and dura are left continuous, the bone will live. Ossification begins in the old Haversian canals. He concludes that the osteogenetic power rests in the dura and periosteum. [M. O.]

12.—Perthes gives the case-histories of 2 Chinamen with benign epithelioma of the upper lip, with histological detail. Both tumors grew gradually, from abnormal sweat-glands, resembled epitheliomata, but were hydradenomata. Clinically they were benign. [M. O.]

13.—Peiser reports a case of necrosis of the pancreas in a woman of 28, whose symptoms appeared 2½ weeks after confinement. She had vomiting and colic, with diarrhea between attacks. She lost flesh, complained of severe spinal pain, and an epigastric tumor developed. The urine contained over 6% of sugar. The diagnosis of pancreatic cyst was made. Laparotomy showed a large pancreatic cyst, which was sutured to the abdominal wall. This was opened in a second operation, 6 days later. The fistula remained. Death occurred 5 months after operation, from diabetes. The pancreas was thrown off as a sequestrum. The necrosis was the result of hemorrhage into the pancreatic substance. Diacetic acid and acetone were found in the urine throughout the disease. Peiser, after fully reviewing the literature, concludes that hemorrhagic pancreatitis may be fulminating, killing in a few hours; or acute, when operation should be done at once. [M. O.]

14.—Gfeller gives the case-history of a girl of 11, upon whom he operated for acute intestinal obstruction. A congenital cyst was found in the wall of the small intestine and removed. The child recovered rapidly. A full histological description of the cyst follows, with a complete review of the literature. [M. O.]

15.—Regling reports 3 cases of solitary, isolated stenosis of the intestine, one dying, the other 2 recovering after operation. They are interesting on account of their rarity. The case-history of a man with chronic intestinal stenosis is appended. [M. O.]

16.—Von Eicken relates the case of a physician with sarcoma of the esophagus. Stenosis gradually occurred, followed by serious hemorrhage. He died 3 days after gastrostomy had been performed. The autopsy showed that the tumor was a spindle-celled sarcoma. The diagnosis is difficult and the prognosis very unfavorable. [M. O.]

17.—Wendel reports a case of femoral hernia in a woman of 47, successfully removed by operation. The tumor proved to be a mass of fatty tissue twisted on its pedicle. This had completely closed the hernial sac. Recovery followed operation. [M. O.]

18.—Hertle describes a new intricate, yet simple, plastic method for replacing defects in tendons. His method is well shown in diagrams. [M. O.]

ARCHIV FUER KLINISCHE CHIRURGIE.

1902. (Volume 68, No. 2.)

13. Remarks on the Production of Cleft Palate.
RUDOLF FICK.
14. The Question of Early Operation in Appendicitis.
ERWIN PAYR.
15. Statistics and Personal Experience on the Question of Early Operation in Appendicitis. SPRENGEL.
16. Disease of the Regionary Lymphglands with Cancer of the Pylorus. LENGEMANN.
17. The Question of Retrograde Incarceration.
R. von WISTINGHAUSEN.
18. The Natural Means of the Organism for Alleviating Pain. CARL RITTER.
19. A Plastic Cover for Bony Cavities, with a Case of Osteoplasty of the Cuboid. BUSALLA.
20. The Diagnosis of the Physiological and Pathological Functions of the Kidneys. FRIEDRICH STRAUSS.
21. The Results of Ligating the Large Bloodvessels of the Liver. OSCAR EHRHARDT.
22. The Pulmonary Complications of Appendicitis.
E. SONNENBURG.
23. Recurrence in Cancer. C. von KAHLDEN.
24. The Cause of Axial Twisting of Intraperitoneal Organs. ERWIN PAYR.
25. The Bacterial Etiology and Treatment of Diffuse Peritonitis. P. L. FRIEDRICH.
26. Exarticulation of the Foot by Circular Incision.
O. SAMTER.
27. The Wounds, after Hernia Operation. O. SAMTER.
28. The Relations between Diffuse Hypertrophy of the Breast and Fibroma. L. KIRCHHEIM.
29. A Case of Backward Dislocation of the Foot.
A. SCHANZ.

13.—Friedrich believes that pressure from an abnormally placed embryonal hand may be the cause of the development of cleft palate. Fick reviews the work done in this subject and agrees with him, that many more embryos must be studied before the question can be decided. He thinks that Friedrich's mechanical theory of the occurrence of cleft palate may yet receive confirmation. [M. O.]

14.—Payr reports 9 cases of appendicitis in which early operation was performed. Operation is indicated in from 24 to 60 hours after the first symptoms. The mortality from early operation is about 2%, while with expectant treatment it is about 12%. Removal of the appendix not only cures the attack, but prevents recurrence. Operation is not difficult early in appendicitis, if ether is used. It needs only a short time and small incision. The danger of infection is slight. When the appendix alone is involved the wound should be closed; if there is any exudate, drainage will be necessary. The success of later operations will depend upon the surgeon's skill. If an appendiceal abscess is to be opened, local anesthesia is sufficient, since the appendix should be removed as soon as the temperature reaches normal, under ether anesthesia. If peritonitis is found, irrigation is not to be employed, dry iodoform gauze

being left in the peritoneum. If possible, however, operation should be early. His technique is given in detail.

[M. O.]

15.—See Philadelphia Medical Journal, May 10, 1902, page 834.

16.—See Philadelphia Medical Journal, May 3, 1902, page 788.

17.—Retrograde incarceration in a hernia has very rarely been noted. von Wistinghausen reports such a case in a man of 34, who for a long time had a right-sided inguinal hernia. This suddenly became irreducible, with pain, hiccough, vomiting, tympanites and much swelling of the right side of the scrotum. Operation showed retrograde incarceration, and death followed resection of the gangrenous intestine. In another patient, a man of 72, recovery followed operation. The occurrence of this form of incarceration is well illustrated by diagrams. The surgeon should always investigate the condition of the intestine inside of the abdomen, when operating on a hernia, since this condition, though rare, may occur. [M. O.]

18.—See Philadelphia Medical Journal, May 24, 1902, page 925.

19.—Busalla describes his method of performing a plastic operation for covering bony cavities, reporting a case, in a man of 22, with tubercular disease of the cuboid bone of the left foot. This was incised, curetted and packed. Later the wound was freshened, and a flap, taking in skin, periosteum and bone from the calcaneum, was moved over the wound. Though some gangrene developed in one spot, the wound healed splendidly. [M. O.]

20.—See Philadelphia Medical Journal, May 24, 1902, page 925.

21.—See Philadelphia Medical Journal, May 10, 1902, page 834.

22.—See Philadelphia Medical Journal, May 10, 1902, page 834.

23.—See Philadelphia Medical Journal, May 3, 1902, page 787.

24.—See Philadelphia Medical Journal, May 10, 1902, page 834.

25.—See Philadelphia Medical Journal, May 10, 1902, page 834.

26.—See Philadelphia Medical Journal, May 24, 1902, page 926.

27.—See Philadelphia Medical Journal, May 24, 1902, page 926.

28.—Kirchheim reports a case of true diffuse hypertrophy of the breast, in a girl of 15, who had never menstruated. On account of their immense size, both breasts were extirpated, 7 pounds being removed from the right breast alone. The tumors showed great masses of glandular, fatty and connective tissue. A detailed report of the histological examination and a review of the literature is given. In Kirchheim's case the axillary glands were also affected. With pregnancy the prognosis is good; with puberty it is grave. Recovery generally follows extirpation of the hypertrophied breasts. He considers the condition a diffuse fibroma. [M. O.]

29.—Schanz reports a case of backward dislocation of the foot in a woman of 45. Such cases are rare. An apparatus kept the foot in good functional position. [M. O.]

1902. (Volume 68, No. 3.)

30. Lumbar and Lateral Abdominal Hernia.

ROMAN von BARACZ.

31. The Lumbar Region, with Special Reference to the Location of Lumbar Hernia. R. von BARACZ and

A. BURZYNSKI.

32. The Theory and Practice of Surgical Steam Disinfection. EGBERT BRAATZ.

33. The Clinical Symptoms and Pathology of Papillary Tumors of the Pelvis of the Kidney.

FRIEDRICH PELS-LEUSDEN.

34. Laparotomy in War. von HIPPEL.

35. The Surgical Treatment of Splenic Injuries.

ERICH BERGER.

36. Intestinal Invagination. HAASLER.

37. The Contents of Tumor Cells Resembling the Eyes of Birds. C. POSNER.

30.—Von Baracz reports 6 cases of lumbar hernia, a rare condition. It may be congenital, may follow traumatism, vertebral or pelvic abscess, or may occur spontaneously. Of the 6 case-histories reported, one was congenital, 3 followed accidents and 2 occurred spontaneously. Altogether but 68 cases of lumbar hernia have been published.

[M. O.]

31.—Von Baracz and Burzynski examined Petit's triangle and the lumbar tendinous space in 38 cadavers. Their investigations show that, in normal conditions, there exists a lumbar tendinous space which is the **weakest point in the lumbar region**, the muscular wall consisting of the transverse abdominal muscle alone. The weakest spot in this space is the aperture for the passage of the subcostal artery, vein and nerve. Here abscess and hernia tend to point. Petit's triangle offers more resistance. The second weak point in the lumbar region is in the latissimus dorsi tendon, just above the crest of the ilium. This permits the passage of the lumbar branch of the iliolumbar artery and vein. [M. O.]

32.—See Philadelphia Medical Journal, May 24, page 926.

33.—See Philadelphia Medical Journal, May 24, page 925.

34.—In an extensive communication upon laparotomy in war, von Hippel states that it is both a necessary and valuable operation. It is indicated when abdominal injury follows small caliber shots. Primary laparotomy, performed in the 12 hours following injury, is indicated when internal hemorrhage, injury to the gall-bladder or bile-ducts, rupture of the bladder or intestine exists; secondarily laparotomy, after 12 hours, is indicated with general or progressive peritonitis; and exploratory laparotomy is to be done when no wound of exit is found. It is indicated for perforating artillery wounds of the abdomen, also. The operation should not be performed on the battle-field, but in the field-hospital, which should be near the site of combat, in an enclosed room, with heat, assistants and apparatus for after-treatment without transport. [M. O.]

35.—Injuries of the spleen may be subcutaneous contusions or rupture; and open, gunshot or stab wounds. Subcutaneous contusions of the spleen are rare, though they may cause simple or leukemic hypertrophy. The most common injury of the spleen is subcutaneous rupture, which may occur spontaneously, or from traumatism with or without some coincident affection of other viscera. The diagnosis is difficult, and death from hemorrhage is a frequent result. Without operation the death-rate is high. The description of gunshot and stab wounds of the spleen follows, with many statistics. [M. O.]

36.—Out of 10 cases of intestinal invagination, 6 patients recovered after operation. Their case-histories are given in detail. Eight of the patients were males, and the youngest were aged 9 and 15 years. The rest were all adults. While the cause of invagination in infants is some peculiarity of development, in adults some pathological process is present in the walls of the intestine, a tumor, Meckel's diverticulum, etc. Haasler considers the best treatment for chronic invagination to be resection with primary suturing of the healthy intestine. By this means the injured intestine, a possible cause of ulceration, stenosis, perforation or peritonitis, is removed, and recurrence is impossible. [M. O.]

37.—Posner describes the cells found in malignant tumors, in which bodies resembling the eyes of birds were found. He described them first in 1876. [M. O.]

REVUE DE CHIRURGIE.

August, 1902. (22me. Année, No. 8.)

1. Fracture of the Astragalus. LOUIS OMBREDANNE.
2. Dupuytren's Fracture. MALLY and RICHON.
3. Fractures of the Posterior Tarsus.

ETIENNE DESTOT.

4. Anorectal Actinomycosis. LEON THEVENOT.
5. Operative Reposition of the Head of the Femur in Irreducible Dislocation of the Hip. G. GAYET.

1.—Will be abstracted when concluded.

2.—Will be abstracted when concluded.

3.—Destot describes in full the anatomy of the tarsus, explaining the occurrence of **fractures of the malleolus, astragalus and calcaneum**. Those of the malleolus may be posterior or anterior, and are often associated with fracture of the astragalus. In fracture of the astragalus, the head, neck or posterior apophysis may be broken. The calcaneum may be fractured anteriorly, or posteriorly, in different parts. The pathology, symptomatology and differential diagnosis follow. This classification is made by clinical observation and radiography. The diagnosis should be made early, since the prognosis depends upon it. [M. O.]

4.—Thevenot has collected 15 cases of certain **anorectal actinomycosis**. The infection usually enters by the mouth, passes through the gastro-intestinal canal, and reaching the rectum, where it is kept some time, it infects the mucous membrane, which has perhaps undergone ulceration. The condition may be primary or secondary, as is shown by the cases reported. In one the parasite was introduced into the urethra on a grain of wheat passed 20 years before symptoms developed. Recovery followed operation. In the other case infection occurred through the digestive tract, death resulting in spite of operation. In the primary form diarrhea, stricture, abscesses or fistulæ are found. In the secondary form the disease may spread by contiguity, metastasis or by causing complications. Peritonitis, nervous symptoms or tumors may result. The diagnosis is exceedingly difficult. Potassium iodide internally and incising and curetting abscesses or fistulæ are indicated in the treatment. Seven of the 15 patients died, in 4 the result was unknown, 3 recovered temporarily and one has been under observation 3 years. [M. O.]

5.—Gayet gives the history, technique, results and indications for operative reposition of the head of the femur in irreducible dislocation of the hip, especially in pathological luxation. He reports 7 cases in detail and has tabulated 29 more. He believes that this is an excellent method for reducing ancient and irreducible luxations. While not very serious, it gives better results than all other methods. Sometimes ideal functional restoration follows, almost always enough mobility resulting to permit normal walking. With good technique, reposition will result in most cases. An external incision over the trochanter generally suffices. It is advised in traumatic and pathological luxations, following accidents or acute disease. It is not of much value in most cases of coxalgia. [M. O.]

September, 1902. (22me. Année, No. 9.)

1. A Case of Interilio-abdominal Disarticulation. M. SAVARIAUD.
2. A Case of Perigastric and Hepatic Abscess. A. VALENCE.
3. Dupuytren's Fracture. MALLY and RICHON.
4. The Radical Cure of Herniæ. L. RICHARD.
5. Fractures of the Astragalus.

LOUIS OMBREDANNE.

6. Congenital Ectopia of the Kidney. XAVIER DELORE.

1.—Savariaud reports a case of interilio-abdominal disarticulation by the internal flap method, in a girl of 7, who had what was supposed to be an osteosarcoma of the ilium. She died soon after operation. The autopsy showed that the tumor originated in the periosteum of the sacrum, and was a small-celled sarcoma. Radiography might determine the origin of such tumors. The technique of the 5 different operations for interilio-abdominal disarticulation follows in detail. The results have been poor. When the buttocks are affected by the tumor, the operation with an internal flap is to be preferred. The few cases reported in the literature are given. [M. O.]

2.—Valence reports a case of perigastric and hepatic abscess in a soldier, aged 24 years, with traumatic perforations of the stomach. Recovery followed laparotomy. The diagnosis, etiology and treatment, none of which was simple in this case, are discussed in detail. [M. O.]

3.—Will be abstracted when concluded.

4.—Will be abstracted when concluded.

5.—After describing a large number of experiments and 112 cases of fracture of the astragalus, Ombrédanne divides them into transverse fracture of the body and neck, sagittal fracture of the body, and fracture of the posterior tubercles, all due to traction; and those due to crushing, which are very rare. Fracture occurs in extreme flexion. The mechanism is described in full. The displacement is characteristic, when the malleoli remain intact. Fracture of the posterior tubercles causes persistent impotence. The only treatment is **total astragalectomy**. If a fracture of the posterior tubercles causes achillodynia, the fragment should be extirpated. [M. O.]

6.—In spite of its rarity, **congenital ectopia of the kidney** is of great interest to the surgeon. The position held by a congenitally displaced kidney is fixed, its shape is abnormal, and its bloodsupply is multiple, coming from all the neighboring large vessels. The ureter on that side is shorter and straighter than its fellow upon the normal side. Delore reports a case in a woman of 40, upon whom subcapsular nephrectomy was performed, followed by complete recovery. Another case is described in a man of 42, found at autopsy. A description of the abnormal kidneys, which showed arrest of development, follows. As soon as the diagnosis has been made, nephrectomy should be performed. Laparotomy may be necessary to confirm the diagnosis. [M. O.]

LA PRESSE MEDICALE.

September 10, 1902. (Volume II, No. 73.)

1. Appendicular Lesions Found at Autopsy. TUFFIER and R. MARCLAND.
2. External Exploration of the Digestive Tract. LEON MACAULIFFE.
3. The Treatment of Appendicitis. SAVARIAUD.

1.—The commonest lesions of the appendix found at autopsy are peri-appendicular adhesions. The meso-appendix has often entirely disappeared. These adhesions may be the result of any form of peritonitis as well as of appendicitis. The appendix may be completely or incompletely obliterated, or it may show chronic inflammation, when examined histologically. Peri-appendicitis was found in 22 out of 60 autopsies; in 13 with partial or total obliteration of the lumen; in 15 without any peritoneal lesion. Therefore, the appendix is generally the seat of a chronic inflammation which in time causes adhesions. Acute surgical appendicitis may occur and, being rarely curable without operation, seldom comes to autopsy years afterward. [M. O.]

2.—MacAuliffe reviews the subject of external exploration of the digestive tract, showing what may be learned by inspection, palpation and percussion of the abdomen. He believes that these valuable methods of examination have fallen into disuse. [M. O.]

3.—Savariaud, who states the disadvantages and dangers of temporizing and of early operation in appendicitis, concludes that **theoretically the most certain treatment of appendicitis is appendicectomy as soon as possible**. Practically, however, he does not operate at once in any case in which the diagnosis is at all doubtful or if the attacks seem very mild in character. [M. O.]

September 13, 1902. (Volume II, No. 74.)

1. The Treatment of Varicocele. L. LONGUET.
2. The Comparative Value of Thyroid Preparations.

BRIQUET.

1.—Longuet describes his reparatory treatment of **varicocele**. He performs phlebo-orchidoparietopexy and describes the technique in detail, with diagrams. This operation, opposed to the radical operation, forms a consoli-

tion of the veins. Supero-internal transposition of the testicle is accomplished, followed by excellent results. [M. O.]

2.—Briquet describes the experiments which led to the use of the thyroid glands as a drug, implantation of the gland, injection of the juice from the gland, the use of fresh and dried glands, the juice given by the mouth and the various preparations made from the gland. The best of all is the administration of the fresh gland. Next in value come preparations of the dried gland. Subcutaneous injections of the juice of the gland are only advised when the gland cannot be given by the mouth. [M. O.]

September 17, 1902. (Volume II, No. 75.)

1. The Indications and Results of Hysterectomy for Uterine Cancer. S. POZZI.
2. Inhalations of Drugs in the Treatment of Respiratory Affections. J. THIENOT.

1.—After fully reviewing the etiology, course and symptomatology of cancer of the uterus, Pozzi discusses vaginal and abdominal hysterectomy in the treatment of the condition. He concludes that the surgical treatment rarely causes recovery lasting over 2 years. If the neoplasm has outgrown the limits of the uterus, hysterectomy is not justifiable, repeated curetting and cauterization being advised. Recurrence follows, not by the spread of adenitis, but infiltration from the cicatrix. The role of the lymphglands in causing recurrence has been greatly overestimated. As abdominal hysterectomy is more dangerous than the vaginal operation, it should only be performed in those cases in which the vaginal method is contra-indicated, with vaginal disease, abnormality, very large uteri, immobile uteri, etc. When operation is performed early, simple hysterectomy may suffice. In grave cases palliative treatment is to be preferred to a pseudo-curative dangerous operation. Vaginal hysterectomy remains the best treatment for uterine cancer. [M. O.]

2.—Many drugs may be given by inhalation without irritating the respiratory mucous membrane. They may be administered for many conditions, viz.: Calm cough, increase or decrease of expectoration, arrest of bacterial growth, hemoptysis, etc. This method of administration is often of value in treating dyspnea, asthma, congestion, etc., producing both a local and general effect. An exact dosage is hardly possible. Thiénot also describes intratracheal and intrapulmonary injections, other forms of local treatment. The air breathed in pine forests, on the seashore or at sea also has a good local effect. [M. O.]

September 20, 1902. (Volume II, No. 76.)

1. Vaccine and Vaccination. GEORGES BORNE.
2. Intrarachidian Injections of Antitoxin in Tetanus. V. GODINHO and O. FAUSTO.

1.—Borne reviews the subject of vaccine and vaccination. Obligatory vaccination for everyone, in the eleventh and twenty-first years, is soon to become law in France. He shows how simple is the technique required, and how efficacious vaccination is, and mentions the centers for procuring virus in France. Many photographs accompany the article. [M. O.]

2.—Godinho and Fausto report the case-histories of a woman of 62 and a boy of 10, both with tetanus, treated by intrarachidian injections of tetanus antitoxin. Recovery followed in the former, but death occurred in the latter. They consider the technique of the intrarachidian injections more simple than that of the intracerebral injections formerly advised. [M. O.]

September 24, 1902. (Volume II, No. 77.)

1. The Diagnosis between Epilepsy and General Paralysis. J. SEGLAS and HENRI FRANCAIS.
2. Primary Cystorrhaphy by Imbrication, with Hypogastric Laparotomy. E. JUVARA.

1.—Séglas and Français reported a case of epilepsy in a

man of 28, with maniacal delirium following a convulsion. While the symptoms resembled general paralysis, the differential diagnosis was not difficult when the history was known. The patient had epileptic dementia. While many symptoms were typical of general paralysis of the insane, they were but transitory and followed epileptic seizures. These symptoms are described in full. [M. O.]

2.—Juvara describes in detail the technique for performing primary cystorrhaphy by imbrication, with hypogastric laparotomy. Many diagrams illustrate his method of operation. He considers it the ideal method for performing cystorrhaphy. [M. O.]

September 27, 1902. (Volume II, No. 78.)

1. The Study of the Arterial Lesions in Rheumatism. M. RABÉ.

2. The Biochemical Value of Edematous Fluid in the Serous Sacs. BOY-TEISSIER and R. ROUSLACROIX.

1.—Rabé reports a severe case of acute rheumatism in a child of 5, with death. A detailed histological description of the myocardium follows. He concludes that acute rheumatism may cause proliferating endarteritis and mesarteritis in arteries of any size. Mesarteritis, characterized by disintegration of the protoplasm with vacuolization, results in a reticular or alveolar state of the middle layer of the arterial wall, and it is due to extremely virulent infection. Parietal thromboses follow, causing the terminal cardiovascular collapse. Should recovery occur, it is only by sclerosis of the arterial wall. [M. O.]

2.—Serous effusion was examined from 15 different patients, chemically and by cryoscopy. Edematous liquid presents an analogous, but attenuated, composition to blood serum; has less albumin, but more glucose; varies in quantity; and, when in existence a long time, contains little sodium chloride, but much glucose, urea and phosphoric acid. The cryoscopic value decreased in time from 4 to 2. The modifications in the relative quantity of the various substances in the edematous fluid are probably produced by molecular exchange in the liquid itself, the result of the life of the connective tissue cells. [M. O.]

October 1, 1902. (Volume II, No. 79.)

1. Acute Suprarenal Insufficiency and the Infectious Diseases. EMILE SERGENT.
2. The Bacteriology of the Lung in its Normal Condition. R. ROMME.

1.—Sergent reports the case-history of a man of 30, with alcoholic pneumonia, complicated by acute inflammation of the suprarenal capsules. Death occurred suddenly on the fourth day of the disease. The autopsy showed right-sided pneumonia and marked congestion of the suprarenal capsules. He believes that the suprarenal inflammation was the cause of the sudden death from suprarenal insufficiency. On the other hand, the suprarenal inflammation was probably due to the presence of the infectious disease. [M. O.]

2.—Normally the lungs contain but few micro-organisms, and these do not remain long. Romme reviews the recent experiments of Quensel and Ludwig, which show that the lymphglands contain less bacteria than the lungs, and that bacteria, when introduced, are rapidly eliminated, first by the bactericidal action of the pulmonary secretion, and, second, by the bronchial lymphglands. [M. O.]

October 4, 1902. (Volume II, No. 80.)

1. The Pathogeny and Treatment of Scoliosis in Adolescents. BAQUE.
2. The Indications and Contra-indications of the Electric Enema. A. ZIMMERN.

1.—The pathogeny of scoliosis of adolescents is explained by general weakness or anemia, together with the theories advanced, ligamentous, muscular and osseous, all of which contribute somewhat. The muscles are first affected, the ligaments next and the bone last. In the treat-

ment, gymnastics, massage and electricity will be sufficient in mild cases. For rigid scoliosis a plaster cast and rest in bed are essential. [M. O.]

2.—Zimmern states that the electric enema, well administered, is not dangerous. It is indicated in acute intestinal occlusion, invagination, chronic occlusion from cicatricial stenosis, compression, cancer and stercoral obstruction. When the condition is acute, and the enema proves useless, laparotomy is necessary. Peritonitis, gangrene of the intestine, appendicitis, weak heart or general condition are contra-indications to its use. [M. O.]

October 8, 1902. (Volume II, No. 81.)

1. A Case with Cerebellar Symptoms. F. RAYMOND.
2. Diet in Bright's Disease. ALFRED MARTINET.

1.—Raymond reports the case of a boy of 13, who had measles a year before. Soon after the measles vertigo, headache, vomiting, progressive amaurosis and titubation were noted. While his general condition was good, he showed some muscular asthenia and hypotonia. His intellect was not impaired. Examination showed nystagmus, double optic neuritis and exaggerated reflexes. Operation failed to show anything abnormal, but autopsy, performed 5 days afterward, disclosed an inoperable tumor of the base of the cerebellum, confirming the diagnosis. Histological examination showed this to be a sarcoma.

[M. O.]

2.—Martinet reviews von Noorden's recent work on diet in Bright's disease. This will depend on the evolution of the disease, the amount of albumin in the urine, and the excretory power of the kidneys. Rich meats should be eliminated from the diet, but other meat, eggs, milk and vegetables are permitted. Enough water should be ingested, as much as 3 liters on one day each week. Finally, the diet should in each case depend on the condition of assimilation of the patient from day to day. [M. O.]

JOURNAL DES PRATICIENS.

September 6, 1902. (16me. Année, No. 36.)

1. Tubercular Rheumatism and Erythema.

H. de BRUN.

2. Ergotine in the Treatment of Pneumonia. SCHOULL.

1.—Among the pretubercular symptoms are fever, albuminuria, phlebitis, rheumatism and erythema. De Brun reports the case of a girl of 18, with articular pain and swelling, intermittent fever and sweats, in successive attacks, resembling chronic rheumatism. Her father had had tubercular peritonitis. Examination showed both apices affected. No drugs appeared to have the slightest effect on the polyarthrititis. Every afternoon, when her fever developed, she was covered with a diffuse erythema. In another patient this also occurred, with other symptoms of incipient phthisis. While such early manifestations of tuberculosis are uncommon, they are undoubtedly signs of incipient phthisis. [M. O.]

2.—Schoull reports a number of cases of croupous and catarrhal pneumonia treated with ergotine with success. Full details follow. He does not, however, explain the action of ergotine in curing pneumonia. [M. O.]

September 13, 1902. (16me. Année, No. 37.)

1. Multiple Abortion. MAYGRIER.
2. Tuberculosis with Obesity. C. SABOURIN.
3. Adiposis Dolorosa. GILBERT BALLEET.

1.—Maygrier reports 2 cases of twin abortion. One, a woman of 19, had expelled twin fetuses at 3 months; the other, aged 31, at 4½ months. Both patients recovered rapidly. Twin abortion is not so rare as was formerly supposed. The placenta should be delivered at once, since its size, when retained after multiple abortion, will make later delivery impossible. Besides, infection may easily occur. If necessary, artificial delivery of the placenta may be performed. Several difficult cases are reported. [M. O.]

2.—Tuberculosis often attacks stout individuals. In

such cases the prognosis is frequently unfavorable. Tuberculosis may follow overeating, alcoholism or influenza in such patients. If they lose flesh rapidly, the prognosis is better than when they remain stout. When recovery follows, it results from strict hygiene. Milk diet, exercise when there is no fever, and efforts to lose weight may effect permanent recovery. Several cases are reported.

[M. O.]

3.—Ballet reviews the subject of *adiposis dolorosa*, first described by Dercum in 1888. He also reports a case in a woman of 68, in whom the diagnosis was made by exclusion. [M. O.]

September 20, 1902. (16me. Année, No. 38.)

1. Pseudo-anemia. MARCEL LABBE.
2. Sympathetic Affection of the Eye. F. TERRIEN.
3. Congenital Mitral Stenosis. HENRI HUCHARD.

1.—Labbe believes that the diagnosis of anemia is made too often in an unscientific manner, without any search being made for the cause of the pallor. Without examination of the blood it is impossible to make a correct diagnosis. Among the pseudo-anemias he places emotion, aortic insufficiency, tuberculosis, nephritis, myxedema, etc. All produce pallor, but blood examination shows the absence of anemia. [M. O.]

2.—Sympathetic affections are irritative or inflammatory accidents produced by some inflammatory affection of the other eye, especially by wounds of the eye-ball. These affections may be simple irritation or true inflammation, irido-choroiditis, plastic or serous uveitis or papilloretinitis. While sympathetic irritation is never infectious, sympathetic ophthalmia is always infectious. If the symptoms of sympathetic irritation do not subside, the primarily injured eye should be enucleated. For sympathetic ophthalmia mercury is indicated internally, with immediate enucleation of the eye primarily injured, and atropine, a dark room and applications of bichloride, 1-1000 to the other eye. Prophylactically hot compresses, leeches to the temple, atropine and mercury internally are employed. [M. O.]

3.—Huchard reports the case of a girl of 17, who had menstruated but twice. Her lips were blue, and her fingers were blue and cold. She also had a marked systolic murmur. Death followed an attack of influenza. The autopsy showed no interventricular communication, but marked mitral stenosis with slight tricuspid stenosis. The pulmonary artery was normal, but the aorta was very small. No thromboses were found. The occurrence of congenital mitral stenosis is from an arrest of development, probably due to tuberculosis or syphilis in the parents. [M. O.]

September 27, 1902. (16me. Année, No. 39.)

1. Hematomyelia. RAYMOND.
2. Venesection. C. FIESSINGER.
3. Alternate Paralysis Due to a Cerebral Glioma.

A. BRETON.

1.—Raymond reports a case of hematomyelia in a woman of 36, with motor paralysis in one leg and sensory paralysis in the other. Her mother died of tuberculosis, her father of chronic lead poisoning. Paralysis followed fright. There was some amelioration of the condition, followed again by a reappearance of the paralysis. Babinski's sign was present, the knee jerks were exaggerated, and there was atrophy, weakness and Argyll Robertson pupils. The diagnosis rests between hematomyelia and syringomyelia, most probably the former. The prognosis is favorable, with tonics, good food, counterirritation and electricity to the muscles. [M. O.]

2.—Venesection diminishes bloodpressure, withdraws congestion and eliminates poisons. It is, therefore, of use in arteriosclerosis with hypertension, pneumonia, nephritis, acute pulmonary edema, uremia, etc. [M. O.]

3.—Breton reports the case of a man of 35, who first noted vertigo and loss of vision, followed by diplopia, headache, loss of smell and taste, etc. Examination showed loss of rotatory power, mydriasis, nystagmus and papillary

congestion in the right eye; slightly dilated pupil and nystagmus in the left eye; diminished hearing, taste and smell on the right side. The mouth and tongue were deviated to the right, while the right side of the face was puffy and swollen. The diagnosis made was glioma of the protuberance, also affecting the peduncles, causing left-sided hemiplegia with right-sided facial paralysis, complete extrinsic and incomplete intrinsic ophthalmoplegia on the right, and incomplete extrinsic ophthalmoplegia on the left. This was confirmed at autopsy. [M. O.]

October 4, 1902. (16me. Année, No. 40.)

1. Turpentine in Disease of the Urinary Passages. LIEGEOIS.
2. Venesection. C. FIESSINGER.
3. The Bloodless Reduction of Luxations of the Astragalus. PAUL BOUDIN.
4. A Case of Metameric Herpes Zoster. AMBARD.
5. Ankylosis of the Knee. MARION.

1.—Turpentine in small doses acts as a diuretic, by its influence upon the kidney itself. Liégeois recommends it in chronic pyelitis, chronic cystitis, gleet and hematuria. [M. O.]

2.—In concluding his article upon venesection, Fiessinger says that it is of value in heart disease when cardiac thrombosis, great dilatation or cardiectatic asyctole occurs. By lowering venous tension, venesection causes the disappearance of dyspnea and anxiety in these grave accidents. Venesection is never needed in hepatic disease, but may be of service in renal disease, especially with uremia. It is also advised in cerebral congestion or hemorrhage in very strong and plethoric subjects. It may sometimes be of value in acute meningitis, myelitis and infantile convulsions; in poisoning from alcohol, carbonic oxide, carbon disulphide; in the infectious diseases, auto-intoxication, lithemia, gout and puerperal eclampsia. [M. O.]

3.—Boudin reports 2 cases, one of outward, the other of inward dislocation of the astragalus, reduced without operation. The technique of his reduction is given. [M. O.]

4.—Ambard reports the case-history of a woman of 57, with metameric herpes zoster, cured by one epidural injection of normal salt solution. All pain rapidly disappeared after the injection. [M. O.]

5.—Marion discusses ankylosis of the knee, reporting a case. It is important that the knee be in good position when ankylosis occurs. Immobilization of an arthritis will prevent its occurrence, though puncture or arthrotomy may become necessary. The treatment may be either by slow massage or by operation. The operation may be a tenotomy, osteotomy or osteoclasia. In cases of long-standing ankylosis of the knee, resection is advised. [M. O.]

Plexiform Neuroma.—Delfosse, in the *Journal des Sciences Médicales de Lille* (August 23 and 30, 1902), reports a case of plexiform neuroma in a girl of 2½ years. At birth it was noted that her right eye was larger than the left, and protruded somewhat. The right orbital region gradually increased in size. Blindness was first noted at 2 years, with atrophy of the eyeball and corneal opacity. Two months ago the eyeball was removed, on account of pain. At the age of 2½ years, while the left side of the face was normal, the entire right side was swollen, from the temple to the chin, and from the nose to the ear. The tumor was edematous and consisted of many plexiform branches and some small nodular masses. Part of the tumor was removed by operation, with death soon afterward. Autopsy showed masses of hard, cord-like tumors, affecting the nerves of the face. Histologically, the condition was a neuroma, of unknown cause, yet congenital. Pathologically, hyperplasia of the nerve-cells occurred, developing slowly. While benign in character, plexiform neuroma may become serious from its position and growth. The diagnosis is easy, and the only treatment is extirpation of the tumor early. [M. O.]

Society Reports.

MANHATTAN DERMATOLOGICAL SOCIETY.

Meeting held November 7, Dr. W. S. Gottheil in the chair.

Dr. J. Sobel presented a case of *urticaria pigmentosa* in a child of 20 months, appearing after an attack of measles one year ago. It grew worse in summer, the lesions occurring in crops, symmetrical and bilateral, on the abdomen and thighs. Drs. Pisko and Gottheil related the history of cases observed, the pigmentation remaining permanently. The treatment of this condition is unsatisfactory.

Dr. A. Bleiman presented a case for diagnosis, in a man of 45 years, showing white, horny patches covering the mucous membrane of the lips, cheeks and tongue. The condition was present 3 years and remained uninfluenced by any treatment. Syphilis could be excluded, as there was no result from thorough antisypilitic treatment. Dr. Pisko called it *lichen planus*; Dr. Sobel, *leukoplakia* of traumatic origin; Dr. Oberndorfer, *leukoplakia buccalis*. Drs. Gottheil and Cocks considered it simple leukoplakia, and suggested lactic acid or the cantery.

Dr. E. L. Cocks presented a case of *prurigo*, showing the result of treatment with naphthol and resorcin ointment. He also showed a case for diagnosis, in a child of 7 years, with scattered subcutaneous nodules on the neck, arms, abdomen and legs. No other lesions were present on the skin or mucous membranes, and the child was well nourished and in good general health. Potassium iodide caused improvement. Dr. Sobel mentioned *rheumatic nodules*; Dr. Weiss saw some resemblance to *lymphangioma tuberosa*; and Dr. Gottheil called it *gumma*.

Dr. Gottheil presented a case of *leprosy tuberosa* of 15 years duration, with large nodular masses on the face, arms and legs. The face shows the typical leonine expression. Dr. Gottheil thought that Finsen therapy might benefit the patient. Dr. Allen had seen such a case improve under X-rays. Dr. Pisko mentioned a case in which the patient had improved on arsenic, internally and hypodermically, with bichloride injections.

Dr. L. Weiss presented a case of *chronic, persistent psoriasis* of 3 years duration, with *erythema papulosum*, and a case of *dermatitis medicamentosa*, in a man showing general scarlatiniform eruption over the entire body.

Dr. I. P. Oberndorfer showed a case of *miliaria*, consisting of whitish miliary papules on the chest, face, neck and back. Some lesions were flat, red papules, modified by treatment. The general opinion of the members present was that there were 2 distinct lesions; *miliaria* and *lichen planus*.

Dr. Gottheil presented a case of *lupus erythematosus*, showing excellent results from the use of Finsen light. In all 14 applications were given, the sittings having taken place every third day. He has 4 cases now under observation and 3 are doing well. Dr. Cocks presented a case of *pityriasis rosæ corporis*.

Tuberculin in the Treatment of Phthisis.—Denys studied 234 patients with phthisis, in the sputum of all of whom tubercle bacilli were found. Of these 138 underwent the tuberculin treatment, the disease having been too far advanced in the others to permit of anything being done. Forty-six of them, 33%, were cured; 28 probably cured, not showing further symptoms; and 27 showed marked improvement; that is, 73% improved. While 6 remained stationary, 5 grew worse and 26 died. If the more serious cases are omitted, the results give 80% improved. The disease had existed on an average 6 months among those cured; 13 months among those probably cured and improved. Tuberculin caused the disappearance of fever and rales, with a gain in appetite and weight. The average length of life after the treatment has been 28 months. The case-histories follow in detail, showing the value of tuberculin in the treatment of phthisis. (*Bulletin de l'Académie Royale de Médecine de Belgique*, 1902, Volume 16, No. 7.) [M. O.]

Original Articles.

THE SYMPTOMS OF PROSTATIC HYPERTROPHY,
THEIR CAUSE AND THEIR RELIEF.*By EDWARD L. KEYES, JR., M. D., Ph. D.,
of New York.

Mr. President and Gentlemen:—

I feel that I owe some sort of an explanation for detaining you with this subject, the clinical aspects of which are nowadays so much debated. My excuse must be, in the first place, a certain familiarity with the clinical features of the disease; in the second place, a point of view which has been of the greatest value to me in interpreting these phenomena and in selecting the proper treatment for them. This point of view I desire to impart to you. Hence I do not come to champion any one method of treatment, nor am I armed to the teeth with statistics. But what I wish is to concentrate into one focus all the symptoms of the disease and all the different methods of treatment. And I hope to place you in this focus, so that, in the light of one group of facts, you may be in a position, not only to judge the requirements of a given case or the merits of various procedures with which you are now familiar, but also to appreciate at a glance the claims to your attention that any future therapeutic procedure may assert. To attain this end we shall have to stride together across broad stretches of territory; and, if the view I offer lacks something of detail, if I do not stop to interpret every stick and stone and stumbling-block of my argument, accredit this, I beg you, to the fact that the journey is so long and our time so short that we must be satisfied to reach our destination by the shortest possible route.

To begin at the beginning, let us understand very clearly the meaning of hypertrophy of the prostate gland. The pathologist's definition, fibro-adenomatous hyperplasia, is of no direct clinical assistance. For our present purposes it is better to describe prostatic hypertrophy as a noninflammatory, nonmalignant enlargement of the prostate gland, occurring spontaneously in middle life. Observe that the clinical characteristics of this condition are: (1) The time of life at which it appears; (2) its spontaneous occurrence; (3) the fact that it is essentially a mere overgrowth of the gland.

I need not insist upon the first two characteristics. We all recognize that the symptoms of prostatic hypertrophy occur only in middle life, and that, whatever may be our theories as to its causation, the disease is, to all clinical appearances, spontaneous.

But prostatic hypertrophy is an enlargement of the gland. Upon this point we must insist. Interpreted clinically this means that, unless rectal palpation reveals enlargement, the diagnosis of hypertrophy may not be made. This point I beg you to bear in mind. There may be residual urine, there may even be complete retention; but, if no enlargement of the gland can be distinguished by rectal

touch, the diagnosis of prostatic hypertrophy cannot be made. (For a detailed study of contracture of the neck of the bladder—a condition that may simulate prostatic hypertrophy in everything except enlargement of the gland—I must refer you to the writings of my colleague, Dr. Chetwood*).

So much for the nature of prostatic hypertrophy. We may now enumerate its chief symptoms under three heads:

I. There are congestive symptoms, viz., priapism, nocturnal frequency of urination and prostatic neuralgia.

II. There are also inflammatory symptoms, viz., prostatitis, cystitis and pyelonephritis—to mention only the chief ones.

III. Finally, there are obstructive symptoms, viz., retention of urine, whether it be acute and complete, chronic and partial, or chronic and complete. Congestion, infection and obstruction—these three agencies cause the symptoms of prostatic hypertrophy.

Of infection I need say little. It is well understood by all of you, I am sure; and, after all, from an etiological standpoint it is only of secondary importance, for infection occurs only upon a soil prepared for the bacterial seed by congestion and retention.

Obstruction may profitably delay us a little longer; for here we enter upon debated ground. It seems to be the common opinion that, in some general way, any part of the prostate may grow to such dimensions as to obstruct the outflow of urine. In a certain sense this is true; any part of the prostate may obstruct urination. It is equally true, however, that enlargement of the gland may not be palpable per rectum. But the clinic proves both these theories false. The enlarged gland is always palpable as such, and the obstruction comes not from any part of the gland, but always from below. Indeed one may well compare the relation between urethra and bladder with that between a tank and its outflow pipe. Under normal conditions the outflow issues from the bottom of the tank, and all the water may be drawn off. But when the prostate hypertrophies, the vesical orifice of the urethra is elevated, the outflow issues from the side of the tank, and below the point of issue there is an undrained pool; there is residual urine. This theory is borne out by physics, by pathology and by therapeutics.

Physically speaking, the existence of residual urine in the bladder can be caused by but three conditions: (1) Paralysis of the bladder muscle (this we need not consider); (2) obstruction or narrowing of the canal (which occurs in stricture of the urethra, in contracture of the neck of the bladder, and in acute prostatic retention); (3) elevation of the urethral orifice. (I need scarcely explain that any depression or lateral displacement of the outflow pipe would not interfere with drainage.)

Now in chronic prostatic retention the urethra is dilated, not contracted, and the bladder muscle is weakened only by its fight to overcome obstruc-

*Read before the Academy of Medicine, Harrisburg, Pa., on Friday, November 28, 1902.

*Med. Record, 1901, LIX, 767.

tion; hence the obstruction itself must be an elevation of the urethral orifice.

Pathology tells the same tale. I present here three specimens characteristic of the usual forms of hypertrophied prostate. The first is an example of general enlargement (Fig. 1);* in the second

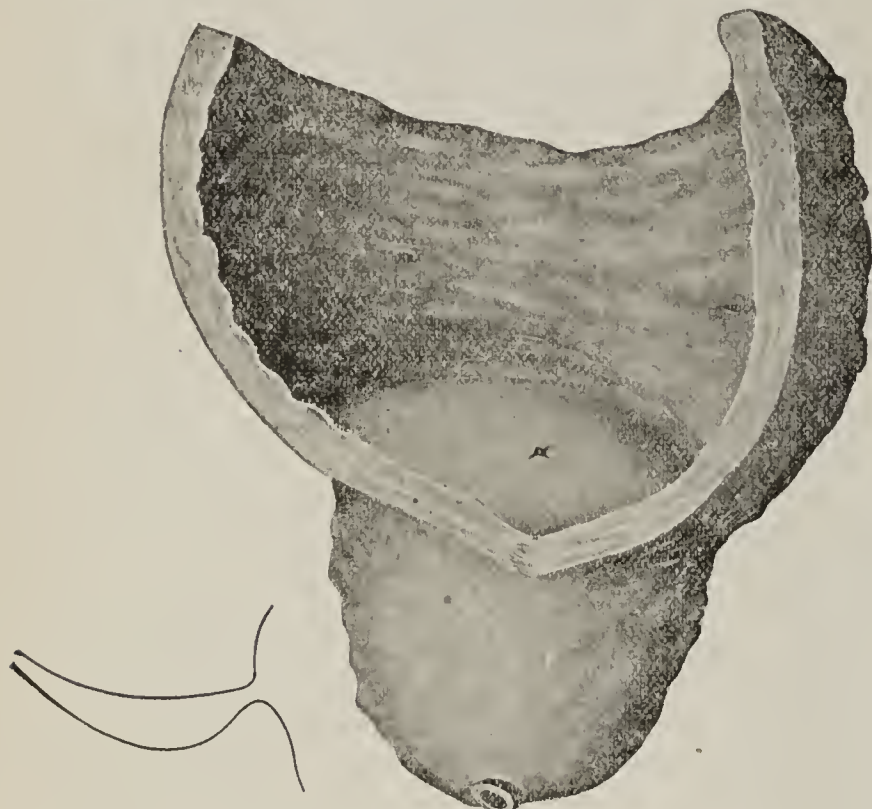


Fig. 1, a.

Fig. 1.

General Enlargement of the prostate. (a) Sagittal section showing elevation of the urethrovesical isthmus.

the hypertrophy is confined to the lateral lobes (Fig. 2), while the third shows a pedunculated middle lobe (Fig. 3). Each of these specimens shows lengthening, dilatation and distortion of the prostatic urethra; in each the hypertrophy was suffi-

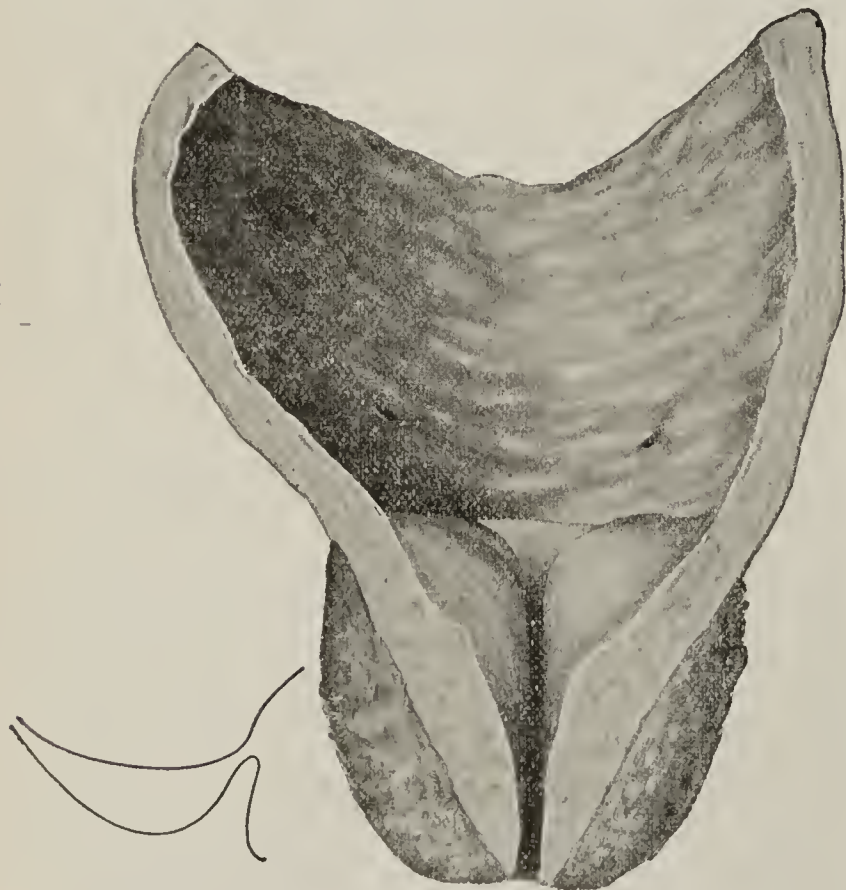


Fig. 2, a.

Fig. 2.

Hypertrophy confined to the lateral lobes. (a) Sagittal section.

ciently marked to be distinguished by rectal touch; and a glance at them will show you more clearly than any description of mine could do, how each of these several forms of hypertrophy elevates the urethral orifice.

The elevated orifices due to general hypertrophy (Fig. 1, a) and to middle lobe (Fig. 3, a) require no comment. But the elevation caused by lateral hypertrophy calls for some notice. Whether one or both lobes hypertrophy, the result is the same; the overgrowth takes place in a part of the gland lying rather below the urethra than to one side

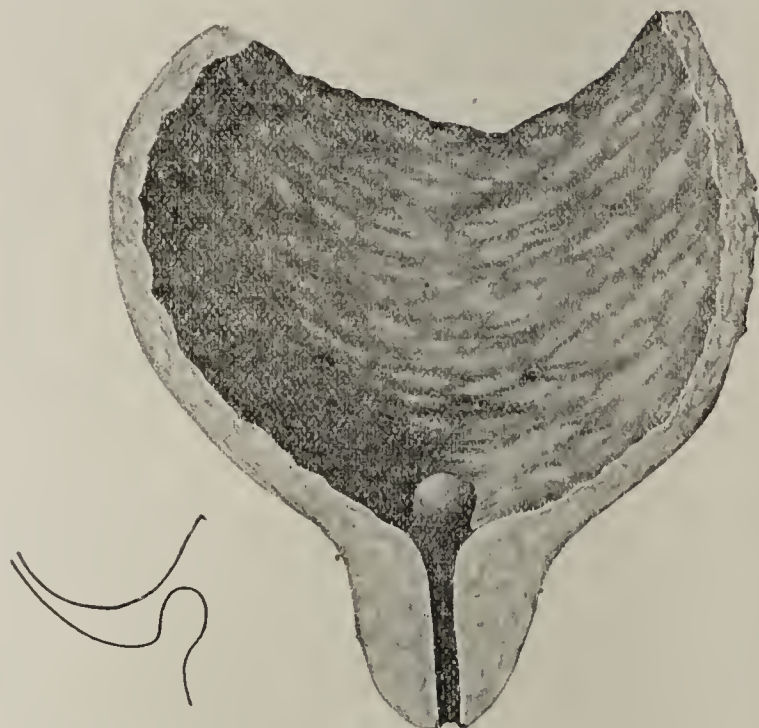


Fig. 3, a.

Fig. 3.

Hypertrophy confined to the middle lobe. (a) Sagittal section.

of it. The tumor compresses the urethra laterally, making it a vertical slit. But the connection of the prostate with the neck of the bladder is such that here the bladder wall is lifted up to form a bar (Fig. 2, a), an obstruction quite as formidable as though composed of prostatic tissue.

Observe also how little the lateral lobes obstruct, and note (in Fig. 2) that, while retention may be relieved by excision of these lateral lobes, it may be relieved equally well and far more easily by incising one or both ends of the bar so as to free it from the growth. If this is done, the lateral lobes may be left undisturbed; they can cause no further retention.

Thus, whatever the form of prostatic hypertrophy, chronic retention means elevation of the urethral orifice; and, since this is the case, let me forewarn you that, when we discuss the relief of prostatic obstruction, it must be on the basis here laid down, the therapeutic confirmation of which I shall show you in a few moments.

The ultimate cause of the symptoms of prostatic hypertrophy is congestion. Congestion has a most intimate influence upon every symptom of the disease. Of some—such as priapism and nocturnal frequency of urination—it is the sole cause; of others—such as the inflammatory symptoms—it is an essential part; while of the obstructive symptoms it is the expression.

*These illustrations are published by permission of D. Appleton & Co., from Keyes, Genito-Urinary Diseases.

You have all encountered acute, complete prostatic retention, so sudden in onset, so intense in character, often so quick to disappear. I need scarcely insist upon the congestive nature of such an attack. Indeed, it is often congestion and spasm pure and simple; the patient is as free from symptoms after the attack as he was before it. But the influence of congestion extends even further than this. It pervades the whole atmosphere of every case; it is the immediate determining cause of every symptom of which the patient with prostatic obstruction complains.

For example, watch the course of the most chronic obstructive case; the old man who has lived for five or ten years with a bladder which empties itself little or not at all. He makes life bearable by the use of the catheter and by occasionally washing his bladder. One thinks of him as far removed from the danger of a congestive attack. Yet, watch him closely day by day, and you will find that careful treatment, systematic catheterization, thorough antisepsis, rectal irrigations with hot water, and the other means employed to improve the local circulation will have a triple effect. Not only will they make the urine cleaner, but they will also reduce the amount of residual urine, unless the retention is complete, and will definitely diminish the size of the prostate as felt by rectal touch.

We need not suppose that our careful treatment has lessened the hyperplasia of the gland. On the contrary, it has obviously lessened only congestion. For, let the patient return to careless ways, let him be irregular in the use of his catheter, let him omit his irrigations, and soon enough he falls back into his old state. Indeed, the more one thinks over this matter, the more evident it is that, while to the surgeon the prostate represents an obstruction to be removed, to the patient this disease is manifest only by congestion. Were the prostate not constantly subject to attacks of congestion, and did our patients not feel distrustful of their own ability to prevent or to control these attacks, I can assure you that our consultations with patients suffering from this disease would be few, indeed; while the surgery of the hypertrophied prostate would be to-day in as elementary a state as is the surgery of the fractured spine.

The patient has no objection to his residual urine. He readily accustoms himself to a gradual increase in the number of nocturnal calls to urinate. He fails to appreciate the ominous signs of the red tongue, the failing digestion, the lessening weight, the chalky countenance, the nocturnal polyuria, which point inevitably to his destruction by renal retention. These things do not concern him. But let him catch cold; let him celebrate too recklessly some happy anniversary, and the resultant acute congestive retention will quickly bring him to the surgeon's feet.

The total impossibility of impressing upon these men the gravity of their situation is a pitiful commentary upon the shortsightedness of humanity. They come in their acute inflammatory attacks, imploring help, impatient of every delay, and willing

to accept almost any alternative; but when a few days' careful treatment has relieved the spasm, has put them back into the condition in which they were before, has left them to work out slowly the fate to which they are inevitably tending—then the surgeon may come to their feet. He may implore, he may protest; but nothing will persuade them that they are not back in the land of safety until another and still another attack shall have brought them so low that the surgeon—who had hoped to cure a disease—may feel well satisfied if he can succeed in saving a life.

But there is another side to the picture, one which as professional men we may view even more sadly than the one we have just been considering, and that is the blindness of our own brethren. I am not here to insist that every case of prostatic hypertrophy should be operated upon. I am not here to insist that some one operation will cure all cases. My views upon these subjects need not concern you at present. But the point is this: The patient suffering from prostatic hypertrophy comes to his medical adviser for relief of congestion. This relief can often be accorded him by the palliative measures which I hinted at a few moments since, and which you will find described in any treatise upon the subject, namely, systematic use of the catheter, systematic lavage of the bladder and the employment of urinary antiseptics, rest in bed and the rectal douche.

These will often succeed admirably and, if the patient refuses operation, or if you yourself do not deem operation advisable, the relief of congestion and inflammation by these palliative measures is a treatment to which no man can object. But if, on account of the failure of these measures or on account of progressive deterioration of the patient's health, operation becomes necessary, beware lest you muddle the issue. Do not, I beseech you, employ a radical operative procedure, a procedure which, no matter how successful it may be, in some degree, threatens the patient's life—do not accept this alternative except with the purpose of removing the obstruction. For, however thoroughly the congestion—and with it the symptoms—are relieved by operation, these symptoms will sooner or later recur unless this underlying cause, the urethral obstruction, is taken away. Palliation, the control of congestion, is the function of palliative treatment, while such radical treatment as operation must be applied, not alone to the relief of congestive symptoms, but also and always to the relief of the obstructive disease.

This, gentlemen, is the key to my discourse. Except in time of emergency, such operations as only attempt the reduction of congestion are unjustifiable, while those operations which attack the gland itself are only justifiable inasmuch as they attack the obstruction.

The operations employed in the treatment of prostatic hypertrophy may be divided into two categories, namely, palliative and radical. Of the palliative operations, such as suprapubic aspiration and cystostomy, I shall not speak. Aspiration has its place to gain time; cystostomy has its place as

a last resort when all other means fail, when the patient is deemed too weak for radical operation. Yet I may add that, although I have operated upon or assisted in the operating of some forty-odd cases of prostatic hypertrophy, I have yet to see a case so desperate that some sort of radical procedure does not offer as good a hope as does cystostomy.

The radical operations upon the hypertrophied prostate may be classified as follows:

1. Operations designed to cause atrophy of the growth by directly interfering with its nutrition.
 - a. Ligation of the internal iliac arteries.
 - b. Castration (including vasectomy, angioneurectomy, venesection, injections into the testis).
2. Operations upon the prostate other than excision.
 - a. Injections.
 - b. Puncture.
 - c. Prostatotomy.
 - d. Bottini's operation.
3. Prostatectomy.
 - a. Suprapubic.
 - : a. Extravesical.
 - b. Perineal.
 - : b. Intravesical.
4. Chetwood's operation.

(1) Of the indirect methods of attacking the prostate, only two demand serious notice. These are castration and vasectomy. Realizing that the former and more meritorious of these two operations had its origin in the brain of one of the most distinguished surgeons in your State, I feel the necessity of apologizing to your patriotism for any critical remarks that I may venture upon it; and I cannot but regret that time does not permit of my detailing to you the great advance provoked in many branches of genito-urinary surgery by the brilliant theories of Dr. J. William White. But I ask you dispassionately to consider the applicability of castration to the cure of the hypertrophied prostate. I shall not lead you into high-sounding discussion of comparative anatomy, of internal secretions or of reflex actions. I wish only to call to your attention three facts bearing very directly upon this question. The one is that, excepting one case of Dr. White's and one of Griffith's, in which beginning atrophy was claimed within a few days after castration, we have, in the nine years since Dr. White first announced his discovery, no post mortem evidence that any prostate has atrophied as the result of castration, while there are a number of reported cases—a few of them extending a year or more after castration—in which that operation produced absolutely no atrophy.

The second point against castration is that many of the cases relieved by this operation are relieved only temporarily. Thus, Dr. Arthur T. Cabot, in 1896, reported favorably upon several cases; but in reviewing the subject three years later he found that of his eight cases three were unimproved, three had relapsed within six months, and in only two cases were the symptoms lessened. Yet in one of these the residual urine was undiminished, while the other continued to wear a soft-rubber catheter for continuous drainage by night. We have not many such faithful reports, but the decreasing favor with which castration is regarded is, I think, due

to the increasing appreciation that such results as are obtained from it are not permanent.

The final and fatal objection to castration or vasectomy is that, even though it cause some prostatic atrophy, which I deny, and much prostatic decongestion, which I admit, it does not directly face the point at issue. Noting the appearance of the specimens which are passing about among you, gentlemen, you do not need to be reminded that, even though atrophy should occur, there can be no guarantee that the patient will be permanently relieved unless we have the assurance that the proper atrophy will take place; that the atrophy will be such as to reduce the obstacle below the urethra, to break down the dam that obstructs the outflow of urine. And not only does Dr. White's operation not claim this selective action, but the clinical facts bear out the opposite theory, that castration does not cause atrophy, while it does cause a temporary decongestion, and should, therefore, be relegated from the category of radical to that of palliative operations.

(2) Of the operations which I have grouped under the general title of operations without excision, we need not consider injections into the prostate or prostatic puncture, since neither of these has any great vogue, and neither of them fulfils the requirement of attacking the prostatic obstacle directly.

But prostatotomy and Bottini's operation, which is a prostatotomy performed by the galvanocautery, both face the issue fairly and endeavor to remove the prostatic obstacle to urination. Simple prostatotomy, simple incision of the prostate through a perineal opening, will greatly improve the symptoms of many cases and will cure a few. But the objection to this operation is that it is uncertain in its workings, that it sometimes gives rise to dangerous hemorrhage, and that it affords only partial or temporary relief if the prostate is hypertrophied to any great size.

But in Bottini's operation we have a treatment in many ways extraordinarily well suited to the case. In the first place, the Bottini instrument burns the prostate and does not cut it. This is most important; for it has been shown by a number of autopsies that the grooves burned by this instrument are practically permanent; so that a high degree of precision is attainable, since the surgeon knows that his cuts will remain almost exactly as he makes them.

In the second place, this operation has the advantage over all others of enlisting the sympathies of the patient by pretending not to be a cutting operation. That this is no small matter will be realized by all of you who have tried to persuade a timorous old man to undergo any operation. Yet it is this very quality of the operation, so commendable to the patient, which condemns it surgically, for without cystotomy, suprapubic or perineal, it is impracticable to obtain a just estimate of the nature of the obstruction, or to know whether it has been properly relieved. That 20 per cent. of the cases operated upon by Freudenberg and by Willy Meyer have required two or more operations before they were fully relieved is evidence enough that, in spite

of all the aids of cystoscopy and experience, one cannot estimate exactly what the obstruction is, nor be sure that it has been relieved, without performing cystotomy and actually inserting the finger—the surest of all surgical guides—into the bladder.

But our indictment of Bottini's operation cannot end here. It is bad enough that we may not promise our patient how many repetitions will be required before he is cured. But what is worse is the danger involved in the operation. Freudenberg lost 2 out of his first 69 cases on account of errors of technique; Bolton Bangs and Guitéras have each unwittingly cut into the membranous urethra, and Willy Meyer has done so twice. This results in peri-urethritis, abscess and usually in death, and is an accident due solely to the blindness of the operator—an accident which cannot by any means be foreseen, an accident which may carry off the most promising case.

There is a third objection to Bottini's operation which, although it may not weigh very heavily in the mind of the surgeon, must have great influence upon the patient, and that is the postoperative complications due to bad drainage. I have no time to dwell upon this matter, but I can refer you to the admirable reports of Dr. Willy Meyer*, which depict with infinite detail the acute retentions, the spasms, the urethral fevers that often follow the operation and are relieved, sometimes by time and the catheter, sometimes by cystotomy, and sometimes by death. It would seem that the convalescence from Bottini's operation is usually incomparably more trying than the convalescence from prostatectomy. If any one in my audience to-night has had any experience with this operation, I should be interested to hear whether or not his results confirm this opinion.

The two great counts against Bottini's operation are, therefore: First, its blindness as to the nature of the obstruction and as to the direction and the amount of incision, and, second, the lack of proper drainage after the operation.

Yet, like castration, Bottini's operation has served a valuable purpose in the progress of the surgery of prostatic hypertrophy. For, while White's operation has enforced most vividly the importance of congestion in this disorder, Bottini's operation has been most illuminating in two ways: It has shown us that a burned incision will heal open, and it has suggested the fact that, in some way or other, the prostatic obstacle may be entirely relieved without prostatectomy. For prostatectomy is always a grave operation. Without stopping to compare the statistics of various methods and of various surgeons, it must be evident to you that the removal of a portion of the prostate gland through an infected bladder is attended by dangers of shock, of hemorrhage and of infection, which must always be grave when inflicted upon an aged man with failing kidneys.

(3) Suprapubic prostatectomy appears to be more dangerous than the perineal operation; perhaps it does not afford as good drainage; while certainly it is more disfiguring and the convalescence

from it is habitually more tedious. Yet I confess to the belief that, in cases of enormous hypertrophy, the clear field afforded by a suprapubic incision promises greater safety to the patient than do a narrow opening and a deep wound in the perineum.

Of perineal prostatectomy there are two general kinds. The one pretends to go into the bladder in search of the obstacle; the other to remain out of it. Of the former class, Alexander's operation is a type; of the latter, Dittel's. Those who object to entering the bladder do so on the ground that they prefer to remove the prostate without disturbing the infected pool behind it. But experience shows that in this operation, as in all others, it is necessary to go directly into the bladder and to find what must be removed, rather than to remove great masses from the outside, which may not, after all, relieve the obstruction.

Intravesical perineal prostatectomy shares with Bottini's operation the favor of most American surgeons to-day. But the several objections which I have indicated as appertaining to the galvanic procedure have already lessened its popularity, while the admirable results which perfected technique and antisepsis afford encourage us to hope for a brilliant future for perineal prostatectomy.

As performed at the present day, this operation is prepared for by diuresis and urinary antisepsis in the administration of urotropin. It is performed most simply through a median perineal incision by tearing with the finger into the floor of the prostatic urethra, and thence working upward and enucleating obstructing portions of the gland; this work being aided by counterpressure either through a suprapubic opening or with some kind of a retractor, such as Dr. Parker Syms's inflatable rubber bulb. A large perineal tube takes care of the after-drainage. Perineal prostatectomy may be performed rapidly and gives admirable results if the surgeon steadfastly keeps in view the one object of the operation, viz., lowering the urethral orifice.

It is still the general impression that prostatectomy should mean the removal of the whole prostate gland. Without stopping to debate the possibility of doing this, I must insist on the futility of the attempt. The bulk of the prostate may be utterly disregarded. The lateral lobes need only be attacked for the purpose of lowering the bar between them; and it is the middle lobe, the bar or contracted bladder neck, which must chiefly engage the surgeon's attention.

(4) My associate, Dr. Chetwood, has very happily combined the advantages of Bottini's operation with those of perineal prostatectomy, and my excuse for explaining his special procedure to you is my own preference for this operation, which has given both Dr. Chetwood and myself the most satisfactory results in the relief of obstruction, in the comfort of the patients, in the rapidity of operation and in its low mortality.**

The technique is straightforward. Through a median perineal incision the bladder is entered, and the finger explores the urethral obstruction. Having determined the nature of this, the galvanocautery

*Med. Record, 1900, LVII, 705, 793. Ibid, 1899, LV, 37, 155. Ibid, 1898, LIII, 325.

**N. Y. Med. J., 1902, LXXV, 925.

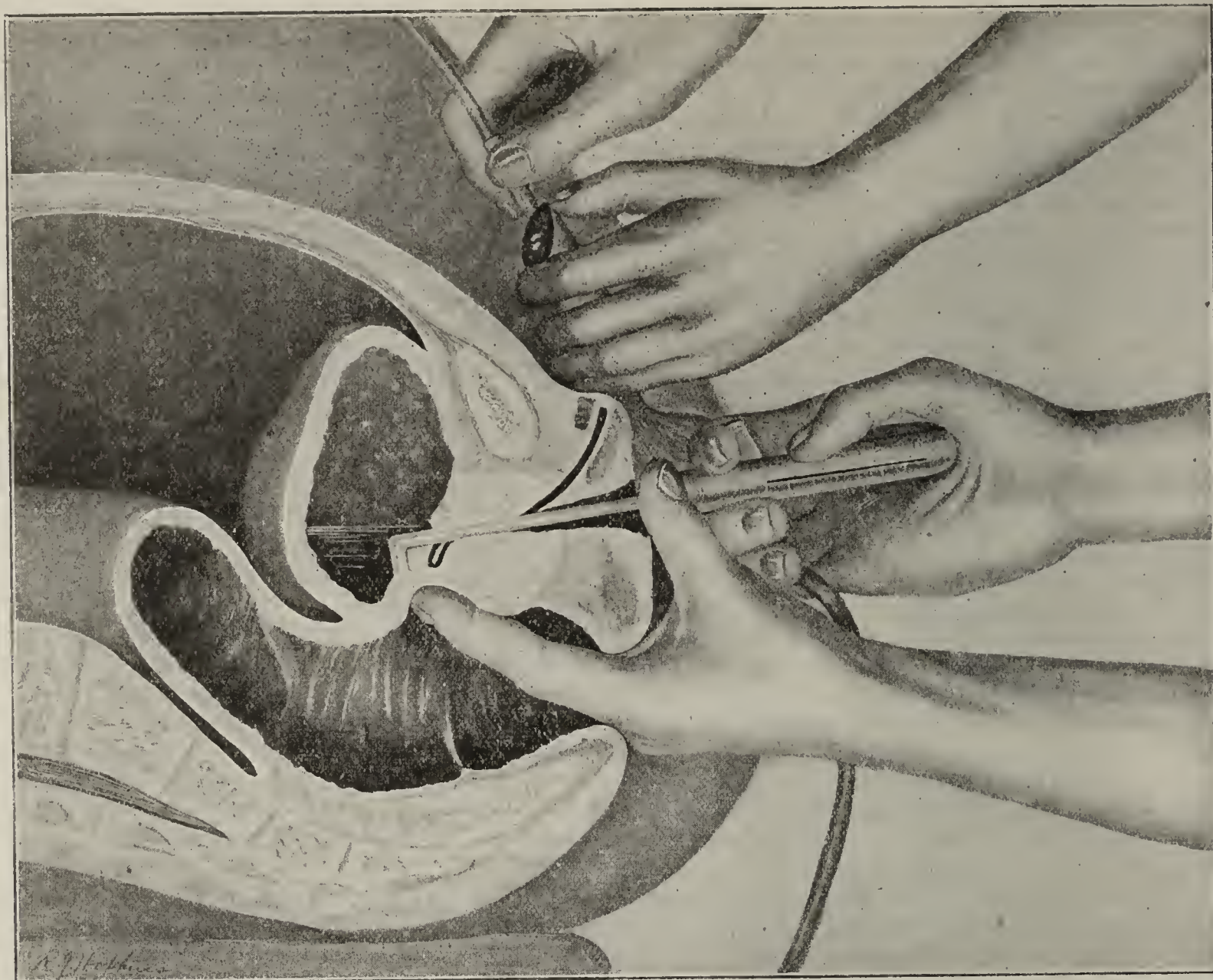


FIG. 4.—Perineal galvanoprostatotomy.

instrument is introduced and with it incisions are burned through the neck of the bladder and the prostate, each incision being made with the sole purpose of lowering the neck of the bladder (Fig. 4). Thus, if a simple contracted neck is found, a single incision, 1 cm. long, suffices to divide it. A massive enlargement of the gland is attacked by one or two incisions into the lower part of the bladder neck. A single or double lateral hypertrophy, with no appreciable median enlargement, is attacked either by incising through the middle of the obstructing lobe or by cutting away its attachments from the bar of mucous membrane at the bladder neck. And, finally, a hypertrophied median lobe is attacked either by splitting it, or by freeing it with an incision at each side of its base, after which it may easily be torn away and removed.

Indeed one of the great advantages of this operation is its applicability to almost all cases. If the hypertrophy is such that simple incision will not reduce it, the incision may be followed by enucleation of any part of the gland, as in perineal prostatectomy; while, if the surgeon judges the growth too great for perineal extirpation, he has only lost a few minutes and may proceed to suprapubic section.

But in the thirty-odd cases that have submitted to this operation during the past two years, two things

have been noteworthy. In the first place, we have found that those patients upon whom prostatectomy was not done have recovered far more rapidly and comfortably than those from whom a portion of the gland was taken away.

In the second place, we have grown more and more bold in depending upon simple incision and leaving in place large masses of the hypertrophied gland, for we have found that these masses cease to obstruct in almost every case. Indeed, we have had to repeat the operation but once, and once only has the patient failed to be entirely relieved of his residual urine. We have had only one death immediately attributable to the operation, and one case of complete incontinence of urine, the result of overcutting.

To appreciate the excellence of these results you must know that, since the autumn of 1900, we have applied this operation to every operable case of prostatic hypertrophy that has been willing to submit to it. And I know of only one case in which there was any question that prostatectomy or any other operation might have done better. That was the case we lost.

Such, gentlemen, are my views on the subject of the treatment of prostatic hypertrophy. I came to you with good intentions, promising not to bore you with statistics, not to urge any particular oper-

ation. If I have broken both my promises, it has been in the hope of elucidating more clearly my opinions upon this subject, and of encouraging your discussion, even though not meeting your approval.

These opinions are in brief:

(1) Chronic obstruction to urination is the underlying cause of almost all the symptoms attributable to hypertrophy of the prostate gland.

(2) This obstruction may be regarded as an elevation of the internal orifice of the urethra.

(3) Yet obstruction may exist without symptoms, and symptoms without obstruction.

(4) For the immediate cause of all the symptoms is congestion.

(5) Hence to the patient the disease represents only a congestion.

(6) While to the surgeon it represents, for the most part, an obstruction, an elevation of the urethral orifice.

(7) The symptoms may often be relieved by relief of the congestion without regard to the obstruction.

(8) Yet such treatment is purely palliative and is not the function of an operation.

(9) Radical treatment consists in permanent relief of the obstruction in the floor of the urethra with little regard to congestion.

(10) This may be accomplished by cauterization or extirpation of the offending mass through a perineal or a suprapubic incision.

(11) The operation to be preferred must attack the obstacle most directly, and remove it most rapidly, while preventing hemorrhage and providing perfect drainage.

(12) Of the operations employed at the present day, the one which most often fulfils these conditions is perineal galvanoprostatomomy.

THE EXISTENCE OF TYPHOID FEVER IN ATLANTIC CITY.*

By PHILIP MARVEL, M. D.,
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Geographically speaking, Atlantic City is built upon an island, situated off the southeastern portion of the State of New Jersey, in latitude 39 degrees 22 minutes north, longitude 74 degrees 25 minutes west, and is about 55 miles in a direct line southeast from Philadelphia.

The city proper is built upon the northeastern end of the island, and is removed from the mainland seaward about five miles. The intervening distance between the city and mainland is an unbroken broad stretch of salt meadow-land, except to the north and west, where it is broken by the Thoroughfare (Little Egg Harbor Inlet), Lake's, Absecon and Grassy Bays.

The history of Atlantic City dates from 1852, but from this year until 1882 there is little of interest known relative to the subject of this paper, no record of any attention whatever having been given the question of sanitation until the latter year, at which time Dr. Boardman Reed and other members of the profession succeeded in organizing a Board of Health. The prejudice and lack of harmony in

public feeling at the time served here, as elsewhere, to retard the Board in accomplishing much until the following year; however, they were resolute and determined men, with conviction no less strong than the dangers they had organized to combat, and shortly led others to realize the necessity for such an organization.

In 1884, acting upon the recommendation of the Board of Health, a sewerage system, known as the West system, was laid in the principal streets during this and the following year. Ordinance succeeded ordinance, recommending such legislation as would force property owners to connect their properties with the system, where the pipes were already conveniently placed. Year after year the pipes were extended to both old and new territories; properties provided with proper means of connection, and public feeling, hitherto prejudicial, was largely overcome.

The placing of water pipes in the smaller houses and subsequently destroying the surface wells, has led to the entire removal of surface drinking water, and how well the Board of Health has succeeded in its recommendations to have all properties connected with the sewer system may be seen in the recent report of the New Jersey State Board of Health, for 1901, in which is briefly told the story of how persistent and untiring have been the efforts of our Board. It is perhaps proper to state incidentally in this connection that no epidemic occurred in any of the unconnected districts previous to their being connected with the sewer, which fact doubtless was due to the strict and careful inspection that was given them. The following is extracted from the report: "Number of dwellings and tenement houses, 5,025; total number of dwellings connected with the water main, 4,550; total number of dwellings connected with the sewer system, 5,275." The seeming discrepancy in the foregoing figures, I take it, is, that the first are intended to include only dwellings and tenements; of the latter there were 25; and the last to include all the above, with the larger hotels, and possibly recently built houses, not yet occupied, all of which are compelled to connect. In all, there are now upward of 35 miles of sewer pipe in active service in Atlantic City. The sewage, with two exceptions, is directed to one common center, from which it is pumped through a 30-inch iron disposal main to the Thoroughfare, a distance of two miles from the city. The average daily pumpage in the height of the season is five million gallons, for the remaining months it ranges from two to three million gallons, and the volume of water passing the outflow end of the sewage-disposal pipe in 24 hours is estimated to be upward of 8,000,000,000 gallons. The exceptions referred to are: (1) A short run of pipe in the northern portion of what is known as the Moore Tract, a small outlying district north of the railroad, which drains directly into Penrose Canal, and (2) the northwestern portion of Chelsea, also north of the railroad, adjoining the back inlet and draining direct into the upper Thoroughfare.

The water-supply of Atlantic City is from three sources, viz.:

*Read, by invitation, before the Philadelphia County Medical Society, November 12, 1902.

(1) From artesian wells within the city, ranging in depth from 750 to 800 feet.

(2) Artesian wells driven to a depth of 40 to 100 feet on the mainland, between six and seven miles from the city, the larger number of which are self-flowing.

(3) From an inland lake situated in an almost uninhabited section of Atlantic County, two miles farther inland. The overflow from this lake is continually renewed by constantly flowing springs, situated within its basin, and a few tributary streams from cedar lowlands. A large portion of the water from this lake daily overflows and collects in a dam, constructed for that purpose. When required, this water is brought from the lake to the pumping station, which is situated near the mainland series of artesian wells, through a narrow, open, artificial canal, made in the soil, the bottom of which is of white sand and gravel.

At the pumping station the water received from the lake with that received from the driven wells is pumped through a sealed iron main to Atlantic City and to the standpipe, a distance of five miles, where a million or more gallons are kept in storage, being constantly replenished. The subterranean source from which the first series (i. e., the deep wells) draw their supply, according to the description given in the State's Geological Survey, is that of the well-known 800-foot horizon extending northwest to southeast across the State, and is without possible pollution. The source of supply of the second series, and also of the flowing springs within the lake, has its beginning in the hill lands north of Hammonton, a distance of more than twenty miles, and filters through the strata of fine white sand, which is protected from the ordinary surface waters by a stratum of compact clay formation, between the 6- and 19-foot perpendicular. The third, or lake, supply of water, as stated by the engineer, is used very little except during the early spring months and Easter holidays, and in the mid-summer months—more particularly, July and August—when it composes less than two-fifths of the bulk supplied.

Therefore, the remaining eight months the city water-supply is almost entirely from an artesian source. The greater number of the large hotels have their own artesian wells, and are, therefore, neither dependent upon, or required to use, the city's supply. Analyses of these waters made by Dr. Leffmann, of Philadelphia, and Dr. Cooper, State Geologist of New Jersey, taken independently from the three sources, have shown each to be exceptionally pure and wholesome. They have specially spoken of that obtained from the artesian wells, remarking upon its freedom from organic matter. Indeed, that received from the lake has so slight a percentage that it ranks much above the average spring and river supply. Whatever objections might arise in the future from the use of the water from this latter source will soon be removed, because the Water Commissioners have already in hand recommendations to put down more artesian wells—the depth of the second series—which, it is

thought, will furnish a supply equal to, and greater than, the amount which will be required for many years. Also for the purpose of protecting the lake for possible future demands, a suitable portion is to be cleansed, dammed and properly protected for emergency supply, which supply will be brought through a conduit to the present pumping station and filtered.

The garbage is collected daily in covered wagons, made for the purpose, and removed to a plant on the meadows, a distance of a mile from the city, where it is incinerated. It must be admitted, however, to the discredit of the authorities having it in charge, that the collections have not always been made according to the requirements of the ordinance, therefore, the department of health has not been without numerous complaints during the months that the service was most taxed, but the increase of typhoid fever in the city during the past summer and autumn has served to impress the said authorities with the necessity for a more strict compliance than has hitherto been given to either individual complaints or the demands of the Board of Health.

The major part of the food supply of Atlantic City is drawn from Philadelphia, New York City and the rural districts of Pennsylvania, New York and New Jersey, the most important exception being fish, which in certain seasons of the year are mostly taken from waters adjacent to this city. Deep-water fish, however, and varieties foreign to these waters, except bluefish, are largely imported direct from the northeastern and southern markets. Oysters are brought from the waters of the Delaware and Chesapeake and planted in the bays north and west of this city, varying in distance from 4 to 7 miles, from where they are taken after proper growth to supply the city's market. The milk-supply furnishes no exception to that of all large cities, being received from large and small dairies situated in various farming districts of this and adjoining states.

Having briefly referred to the sources through which typhoid fever infection usually finds its introduction into our homes, as well as our cities, before more particularly considering the investigation and report of the committee appointed by the Atlantic City Academy of Medicine, to ascertain, if possible, its source in Atlantic City, I wish to refer to some possibilities arising from the special relation which this city bears to the sanitary condition of the country at large. This question, however, may be simplified by referring to that of Philadelphia and other large cities near by. It may not be a unique situation, but certainly an exceptional one, to find for eight or more months in the year a city of any number of inhabitants, its greater number being already accredited residents of other cities.

For instance, when Atlantic City has from 200,000 to 300,000 people for its summer population, which represents a temporary transfer of large residential portions of various thickly populated sections of other cities, there must necessarily come with such an aggregation of humanity a large importation of

infectious disease and disease-producing germs. And again, the great and almost inestimable daily demands made upon the energies of those who have the responsibility of caring for this great army of health and pleasure seekers, rapidly exhausts their stored energies and leaves them with lessened resisting force, thus providing a suitable fallow ground for the development of infectious diseases. A study of this aspect of Atlantic City's position will show, without further argument, how very likely such an influx from so large a district as the "Whole Country" would disturb both the physical and sanitary conditions of the city, and the wonder is that it has not hitherto had many epidemic outbreaks of typhoid and other diseases—certainly no better or more potent argument can be used as evidence of the faithful guarding of the city's health in the past than the absence of epidemics, as verified by reference to the records of the city's Board of Health.

In 1882 Atlantic City's population was in round numbers 7,000; maximum daily number of visitors, in the summer, 40,000. In 1892, number of residents, less than 20,000; maximum daily population in August, visitors, 100,000 to 125,000. In 1902, resident population, not more than 40,000; maximum daily population in August, visitors, not less than 250,000. During the remaining months, from September to July, the number of visitors will vary from 20,000 to 200,000. By this unequal relation Atlantic City's population is yearly increased, and suddenly transformed from that of a village to the number and importance of a great city. With the foregoing statement and figures before you, I now come to the special discussion of the subject in question: "The Existence of Typhoid Fever in Atlantic City."

Reference to Atlantic City's Board of Health records from 1885 to the present year reflects the condition of the city's past and present health more nearly correctly than can be presented in any other way. From a study of these records, which are complete, with the exception of from 1888 to 1894, I am able to make the following statements:

During the years of 1885 to 1887, inclusive, the number of typhoid fever cases reported was 19. The largest number reported for any one year, 13; the smallest number reported, 3, being an average of 6 1-6 for each year. Population: Resident, 6,000 to 8,000; visiting, estimated minimum, 5,000; maximum, 50,000; average about 25,000 to 30,000; from 1895 to 1901, inclusive, total number of cases reported, 208. Greatest number reported for any one year, 48 cases. Smallest number reported for any one year, 18 cases, being an average per year of 29 5-7 cases. Population: Resident, 20,000 to 35,000; visitors, 150,000 to 250,000. If we study this report in divisions, making the first include all cases reported between January and June of each year, inclusive; the second, all reported between July and October, inclusive; and the third, all reported between November and December, inclusive, it forcibly demonstrates the period of the year when the largest number of cases have been observed. In the first division were reported 50 cases,

or 1 1-6 per month. In the second division, 123 cases, or 4 1-28 per month; in the third division, 25 cases, or 1 11-14 per month.

It is to be regretted that the records do not indicate in all cases whether resident or visitor, hence any study of the reports looking to the correct estimate of the number infected in this city cannot be accepted as reliable, and in no case is it stated how long the individual was in the city previous to being stricken with the disease. That quite a number of the visitors with the "imported help" (which I desire to emphasize later) are included in a number that should be exempt from the records must be admitted without question. For instance, no subject developing the disease within ten to twelve days after arriving in the city should be accredited to causes prevalent here, and there is great reason for doubt as to whether, in many cases, the incubation period should not be more frequently placed at twenty rather than a less number of days. In support of the former statement I cite, as an incident in question, four cases attended personally this summer, each of which developed the disease respectively on the first, third, fifth and seventh days after their arrival in the city; and these were reported simply in the regular way. It is not only probable but an unquestionable fact that the same is true of cases attended by my colleagues and other physicians of our city. To return for a moment and briefly allude to the cases observed among "imported help," it may be stated without argument, that these include a number of the hospital cases. If the total number of visitors, who have been ill of typhoid fever in Atlantic City, be added to the number of cases treated among the help, to which reference is above made, and this number deducted from the total number of cases reported to the Board of Health, there would be quite another and a different showing, and, if one could only know how many of these cases brought the infection with them, and to this number add the number of cases among our own residents who became infected while visiting other cities where the disease was prevalent, we should have, I dare say, but a small percentage of the number recorded to Atlantic City's credit.

This brings me to the year 1902, when the circumstances are somewhat changed. Early in the month of August it became quite apparent to members of the profession that the typhoid bacillus had found a nidus within our city and was propagating rapidly and effectively. Frequent discussions were had upon the subject, and much careful thought and patient search given the investigation. In the early part of September, at a meeting of the Atlantic City Academy of Medicine, the subject was openly discussed and subsequently a committee was appointed by the Academy for the purpose of a thorough investigation. So careful and effective had been the work previously done by individuals that the committee's task was much lightened and resolved itself largely into a review and affirmation of that already done. After having considered the various sources of likely infection, as alluded to in the beginning of this paper, the committee, having exempted one

source after another, finally found evidence which pointed strongly but circumstantially to the hapless and innocent oyster. It was sure of having located at least one source of infection, but before making the report, Dr. A. C. Abbott, Professor of Bacteriology and Hygiene, University of Pennsylvania, and Dr. Henry Leffmann, Professor of Chemistry in the Woman's Medical College of Pennsylvania, were asked, as experts, to examine the sources under investigation and pass upon the report before the same was submitted. This they did and it now bears their approval and signatures. (For detailed report those who may be interested are referred to **The Philadelphia Medical Journal** of November 1, 1902.) It was easy for oysters, "freshened" and "fattened" at the junction of Penrose Canal and the Thoroughfare, to become sewage-infected and polluted. "Fattening cribs," scarcely more than five hundred yards from the point at which the sewage was by accident being delivered into Penrose Canal, were so situated as to receive the flood tide as it flowed through the canal to the Thoroughfare. Only ignorance could excuse men from so culpable a violation of sanitary law.

A similar, though much less dangerous, condition, because of the small amount of sewage delivered, was found to exist in Gardner's Canal, an artificial creek, which is a short distance west of the mouth of the Inlet. The findings of the committee were at once presented to the Board of Health, with the recommendation that an ordinance be prepared to include all of the adjacent waters around and about the city, within a radius of three miles, and that any person or persons found planting, catching, "freshening" or "fattening" any shell fish, whatsoever, within these waters, or offering for sale any shell fish known to have been taken from these waters, shall be judged a violator of law and severely punished by fine and imprisonment; this to be passed by Council and made active at once. It remains to be seen what knowledge exists of reasonable evidence of the transmission of typhoid bacilli to the oyster. This again is without direct proof, but a number of persons, quite a half-dozen I should think, are known to have had typhoid fever for periods varying from one to six weeks and from whom all the excreta were permitted to enter the sewer without the least attempt at disinfection, these being unrecognized, it is only fair to infer that they did not represent the whole number who may have been treated by the same gentlemen without proper disinfection. And it was true of many cases that they did not consult a physician until several days after the beginning of their illness. And also, that simultaneously with the stopping the sale of oysters "freshened" and clams caught in the sewage-polluted waters, with few exceptions, the further development of cases of typhoid ceased.

It would be easy further to multiply evidence quite as probable as the foregoing, but it is unnecessary: that the infection was there is not disputed. The question is, from where did it come?

In accordance with statements and inferences already before you the way to a probable explanation

readily opens. Having recently addressed the following letter to the Health Boards of the large cities on and adjacent to the Atlantic seaboard, I am in possession of information bearing upon the subject of typhoid fever in these cities which enables me to show the possibility that not only did the typhoid infection come from these sources, but also that a number of cases attributed to Atlantic City (some of which developed there, and others after their arrival home) are probably wrongly placed at the city's door. Not having stated in my communications to the several Boards that I desired the information for public print, I reserve the privilege of withholding the names of the cities addressed, and the numbers individually reported, but may state that the aggregate number of cases enumerated in the reports received numbered nearly 10,000, which have already been reported in these cities this year, from all of which, to my personal knowledge, Atlantic City's past summer's population was materially increased. The following is a copy of the letter:

"To the Secretary of the Board of Health of—

Dear Sir:—I am endeavoring to ascertain whether typhoid fever has materially increased the past three years in the Atlantic seaboard cities, and the cause of the same, when known. To assist me in obtaining this information, I am taking the liberty of addressing to the various Boards of Health the following questions relative to it, and in so doing may I enlist your co-operation to the extent of answering the following, viz.: The number of typhoid fever cases reported monthly for years 1900, 1901 and 1902, and what was the source of infection, if known?

Thanking you in advance for your trouble and the courtesy I am asking, I am

Yours very truly,

PHILIP MARVEL."

I hope I have not been misunderstood in the foregoing, and certain it is, it has not been my intention in any way to mystify the subject or exempt Atlantic City from any part of a relation in the recent development and distribution of typhoid fever infection within its boundaries; therefore, in concluding, permit me to recapitulate briefly:

(1) The existence of typhoid fever, as was evidenced by the greater number of cases observed, was known to the profession in August.

(2) Though unofficially, the profession used its earnest and early endeavor to apprehend the source.

(3) The Atlantic City Academy of Medicine officially appointed a committee on September 19, with full authority to investigate and, if possible, to determine the source of the infection.

(4) The said investigation was successfully made, committee's deliberations examined and approved by two experts, and the reports accepted by the Academy.

(5) A copy of the report was furnished the Board of Health with the committee's recommendations, and was favorably received.

(6) Said recommendations were duly prepared, presented and acted upon by the Board of Health, and to-day are an operative law.

(7) The knowledge acquired by the committee, within and without the city, was positively to exempt the water and milk-supply from contributing in any way to the source of infection.

(8) The knowledge obtained through the courtesy of the various Boards of Health, and the peculiar relation of the sanitation of Atlantic City to that of the larger cities of the country, makes it more than probable that Atlantic City was the victim rather than the source of the disease.

PERSONALITY AS A FACTOR IN MEDICAL EDUCATION.*

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At this season of the year, when medical schools are opening and the voice of the student is heard in the land, a few thoughts on the general subject of medical education may not be inappropriate.

The relation of teacher and pupil is a particularly close one. Coming, as he does, into contact with his pupil at the formative and receptive era of the latter's life, the true teacher makes an impress on the mind and character of the pupil which is never eradicated. One may forget the friends of his youth, and even the ties of kinship may grow lax, but does one ever forget the teachers of his early days? I venture to say that each of us can recall one or more men who taught him, and, perhaps unconsciously to both, aided in forming his character.

One of the most beautiful of the orations of Cicero is the one in behalf of his old master, the poet Archias, the burden of his argument being that he would be recreant did he not exert his powers of oratory in behalf of the man who, more than any one else, had made them possible.

It may truly be said of the great teacher, as of the poet, that he is born, not made, and that he is second to none in his influence for good. Is there any element common to all noted teachers which may explain their success? It seems to me that the answer to this question is to be found in their personality. There has been something forceful and individual in each that has made its impress upon the minds of others.

Many of us are teachers of our art, and I am quite sure that the problem of how best to get into contact with those we teach causes us many hours of thought. We do not want to talk *to* our pupils, or *at* them, but rather *with* them. To do this, it is particularly necessary, it seems to me, carefully to study the needs of those we are trying to teach, in order that we may adapt ourselves to those needs with some measure of success. The nearer we come to looking at a subject from the standpoint of the student, the better we shall succeed in making him understand it as we desire.

The methods of medical teaching are changing. Less stress is now laid upon the didactic lecture and more upon the familiar clinical talk. Whether this is a change for the better, or not, remains to

be seen. There is certainly a place for the didactic lecture in summing up, discussing and correlating the results of clinical observation, and when it is enriched by original thought or the results of a long experience, it is, beyond question, an illuminating and instructive method of imparting knowledge. In a general way it would seem that a judicious combination of the two would be the ideal way of teaching medicine.

In olden times a youth wishing to learn a trade entered himself with a master workman as an apprentice. For many years he toiled without pay, proceeding from the rudiments to the intricacies of his art and unconsciously absorbing the spirit and manner of his master. His apprenticeship finished, he became a journeyman and spent his "Wanderjahre" in going from city to city, working in the shops of those famed as masters in the art of his choice. In this way he was able to compare his methods with those of others; to adopt their excellences and avoid their defects. By this means he formed for himself a style having in it the elements of thorough training, observation and comparison, so that, when, in his own turn, he set up as a master, all his work bore the impress of himself. Yet, in spite of this, it was all unconsciously saturated with the spirit and teachings of the masters under whom he had served. The final result was that, in those days, handiwork was art. The master mason wrought miracles in stone; the master builder considered that beauty was of as much importance as utility, and the painters created those masterpieces which the artist of to-day goes thousands of miles to see and study.

What is the secret of the permanence of such work as this? Is it not the personal element in it? When a man puts himself into his work, it is likely to be lasting.

As in the arts, so it was formerly in medicine. The would-be physician entered the office of some established practitioner to spend his years of apprenticeship. He rode and talked with his master, assisting him in his work and unconsciously absorbing his methods and even his manner. Perchance one or two winters were spent at a medical school, learning the broad, underlying principles of our art, but the association with his preceptor was kept up during the remainder of the year. If exceptionally fortunate, he was finished off by a year or two of study abroad, but at all events he entered upon the practice of his profession with a sound, practical training, fully able to cope with its emergencies. There were brave men before Agamemnon, and there have been good physicians before our time educated in this manner. Some of us can call to mind such men and will, I am sure, bear willing testimony to their skill, devotion and ability.

Other times, other manners. How is it now-days? We have no time for this leisurely progress toward perfection. In the arts we have huge factories turning out their products, one piece as much like another as machinery can make it. In medicine we see the tendency toward large medical schools, each with an annual product measured by hundreds. Is it not inevitable that one should be

*Read before the Medical Society of the District of Columbia, October, 1902.

pretty much like another in this wholesale production? There is no room for individuality. Instruction must be served out wholesale. Teacher and pupil may never meet. It is like serving the meals in some great public institution. So many pounds of beef, so many bushels of potatoes and so many loaves of bread are cooked or baked each day and served to all the inmates alike, regardless of individual tastes or distastes. It is nourishing, after a fashion, but scarcely palatable.

So it is with this wholesale medical instruction. So much anatomy, so much chemistry and so much surgery are served out each day for all alike. If the individual can assimilate any of it, well and good; if not, so much the worse for his mental digestion. There is not, and cannot be, any attempt to consult individual needs. The result is uniformity of product. I do not wish to be understood as implying that the product is not good, for it is surprisingly so when the method of production is considered. Here and there one may rise above the level, but in such cases investigation will usually show that such a one has had the advantage of personal association with some master of our art and the benefit of his advice and training. In this connection the following remarks by Dr. J. H. Carstens are so pertinent that I cannot refrain from quoting them. Dr. Carstens says—the italics being his: “No one can become a modern surgeon by going to a post-graduate school and seeing a surgeon operate at a distance of fifty or a hundred feet. In order to become a modern surgeon he must work directly with some modern surgeon, *he must assist him, he must be with him day after day, month after month—yes, even year after year, but certainly not less than a year.* Then he will probably appreciate the difficulties of diagnosis, the difficulty of deciding upon the right kind of operation, the difficulty of selecting the propitious time and moment for each individual patient. Then he will acquire some of the fine points in the technique, the minutiae, the attention or nonattention to which small details bring success or failure in an operation.” (*Medical News*, Vol. LXXX, No. I.) Here, it seems to me, is the opportunity of the small school. In such a school teacher and pupil come into more intimate contact, and there is a chance to study individual needs. With a strong and devoted faculty there is no reason why such a school should not graduate efficient and well-equipped physicians. Many such schools now exist in our smaller cities, in spite of the claim of the so-called medical centers to arrogate to themselves the concentrated medical wisdom of the country. The intimate contact of teachers and taught produces excellent results. That the larger schools realize this is shown by two facts. In the first place, the best of these schools are no longer striving for mere numbers in the matter of students. There is an effort to secure as students only those qualified by previous education to appreciate medicine as a science rather than as a means of earning a livelihood. This must result necessarily in a small, but highly intelligent, student body and saves a great deal of drudgery on the part of the instructors. In the second place, the practical teaching

in nearly all the larger schools is now done by means of instruction given to small sections. In other words, the unit of teaching, instead of being the individual or the class, is now the section. This is but the old development of the old idea of a master and a few pupils. Then the student was with his master constantly, visiting and examining his patients with him and discussing them with him afterward. Now, each section goes to the bedside with its instructor, and the patients are similarly examined and discussed. Thus, pupils and teacher are brought into that close and familiar contact so essential to successful teaching. In other words, it but exemplifies the contention that the personality of the teacher is the main factor in the education of the pupil. To this element, I think, may be attributed much of the repute of foreign instruction. A master has his laboratory or his clinic, and the pupils, drawn by his fame in some particular line, are brought into close and intimate contact with him. He directs and supervises all their work, criticises it and leads the pupil on to higher fields.

Who of us cannot recall, in his student days, some member of the faculty who was his pattern and exemplar, whose good opinion he coveted, whose friendship he endeavored to cultivate, and whom he made his model as a physician and as a man? We carry with us into after-life the memory of such men, and it helps and inspires us in our life-work. Our late lamented president, Dr. Busey, in his interesting “Personal Reminiscences,” has a chapter on his experiences as a pupil of Prof. Geo. B. Wood. If any one doubts that Wood profoundly influenced Dr. Busey’s professional life, let him read his description of Wood and his manner. It might almost answer for a pen-portrait of Busey himself.

Another element in successful teaching must be a love for, and an intimate knowledge of, the subject taught. Students are quick to detect shams and are keen diagnosticians of perfunctory work. The instructor who is single-hearted in his devotion to his work quickly commands respect because he deserves it. The best example of this type of man in the English-speaking world is John Hunter. Here was a man of lowly birth and meager educational advantages who, by his own unaided efforts and by sheer force of hard work and will-power, rose to the highest plane of medical authority. His success came to him justly and lay in his love for his work and his enormous capacity for performing it. He was wrapped up in his work and begrudged the time expended in earning the money necessary for his living expenses. A large part of his earnings went toward improving his museum, so that, despite the fact that before his death his annual income was six thousand pounds, he died a poor man. His customary hour for rising was four o’clock, and the ensuing four or five hours were spent in the dissecting room. Five hours of sleep sufficed him, the remainder of the day being spent in work.

It would be supposed, naturally, that such a man would influence profoundly those associated with him, and when we read that among his pupils were such men as Edward Jenner, Abernethy, Sir Astley

Cooper and Philip Syng Physick, the father of American surgery, we are not surprised to find them men of marked originality and individuality. They were one and all proud of their master and regarded him with reverence. When we recall the fact that at that time the pupil in medicine resided in the house of his preceptor and was apprenticed to him for five years, we can realize the close intimacy which must have existed between Hunter and those so fortunate as to be his pupils. Of these pupils the favorite was probably Edward Jenner. Doubtless to many of us it has been a matter of surprise that so great a discovery as that of the efficacy of vaccination was made by an obscure country practitioner. This surprise is lessened when we learn that Jenner was constantly under the influence of Hunter. Even before the end of his five years of apprenticeship Hunter wanted him to become his assistant and to join with him in establishing a school of natural history on a scale before unknown. Jenner, however, preferring the quiet life of the country, turned a deaf ear to these proposals, which were certainly most flattering. Even in his quiet country retreat he was not free from the influence of Hunter, who deluged him with letters suggesting experiments which he begged Jenner to carry out for him. The correspondence between them would fill several volumes and is replete, on the part of Hunter, with requests for material and for observations on the habits of birds, beasts and fishes. Some quotations from Hunter's letters are the following:

"Have you any large trees of different kinds that you can make free with? If you have, I will put you upon a set of experiments with regard to the heat of vegetables."

Again he says, referring to some experiments upon the temperature of the hedgehog: "I think your solution just; but why think? Why not try the experiment? Try the heat; cut off a leg at the same place; cut off the head and expose the heart, and let me know the result."

Indeed, experiments were Hunter's meat and drink. Owing to his defective education he lacked the taste for reading, so that he was often ignorant of what others had accomplished and, consequently, frequently duplicated work which others had already well done.

Is it a matter for wonder that, with such a master, and himself so apt a pupil, Jenner was observant to the last degree, and that he did not fear to test his observations by the touchstone of experiment? It becomes no longer a matter of surprise that he made the discovery which immortalized his name. Is it too much to say that to Hunter, at last indirectly, we owe the discovery of vaccination? It is a striking example of the influence of personality in medical teaching.

Jenner cherished the utmost love for his master and always referred to him as the "dear man." The friendship between the two was broken only by death.

Doubtless a search of the history of medicine would show many instances of a like nature, but enough has been said, I think, to show that the per-

sonality of the teacher is a powerful factor in the development of the pupil, and that the teacher is successful almost exactly in the proportion that he possesses this faculty.

Also, it is apparent that our schools of medicine, to be truly effective, must imitate this close association of master and pupil. The most feasible plan at present seems to be the making the section the unit of teaching instead of the class. This entails the formation of a large teaching body, as the instructors must of necessity be many in number. Probably, also, it means the gradual elimination of many of the smaller medical schools. That we have too many small and weak schools in America is a proposition that needs no argument. This is the age of concentration and combining of similar interests in order to lessen the expense of management and unify the business. If the same tendency were shown in medical education it would be better for all concerned. Several instances of this kind have recently occurred, and there will be more in the future. Our own city is a fair illustration. Does any one doubt that, if instead of four schools we could have one strong institution, with a control of all the clinical material, our position in the medical world would not be immensely strengthened?

We might take a lesson from the general institutions of learning and have two grades of schools. The lower grade could thoroughly train students in the so-called primary branches, which can be taught in a small almost as well as in a large school. The last two years might then be spent in schools in the large cities, organized solely for clinical instructions and with faculties large enough to insure thorough instruction to small sections. Cornell and Bowdoin have adopted this plan with advantage. The post-graduate school fills this need, in a way, but the advantages of these schools seem to be sought now by those who have been some years in practice and feel the need of instruction in some special branch of medicine.

The student in his first two years needs no clinical instruction; is, indeed, better off without it. Let him then devote his time to anatomy, physiology and the other branches usually assigned to those years. Whether his future work shall be easy or difficult will depend largely upon the thoroughness with which he has mastered these branches. Of what advantage is it to a first-year student to witness an operation for appendicitis when he knows nothing about the appendix or its location? What benefit will he get from a clinical lecture on diseases of the heart when he is ignorant of the structure of the organ involved? It is like witnessing a play given in a foreign language. One may appreciate the spectacle and catch the drift of the action, but he cannot enjoy it thoroughly and loses the finer points which give life to the whole.

The third and fourth years should be largely clinical, and special attention should be given to pathology and bacteriology. The latter is a growing science. One need be neither a prophet nor the son of a prophet to foresee that the coming triumphs in medicine will be in the direction of the prevention of diseases, and the key to preventive medicine is bacteriology. The fourth year should

be largely one of training for active professional work and should be, in my judgment, almost entirely clinical. It should, so far as possible, foreshadow the years that are to come. As the student studiously neglected clinical work in his first two years, so let him cultivate it now. The embryo practitioner should be taught self-reliance by being given entire charge of medical, surgical and obstetrical cases, under the watchful supervision of teachers and demonstrators who should be in intimate personal contact with each student. He should learn to know disease as it exists in the patient, and not as it is described in the books. Four years spent in this way ought to equip a student well for his life-work, but, if time and money permit, they may be profitably supplemented by a year or two of study and observation in other medical centers, at home or abroad.

In conclusion, permit me to digress somewhat to allude to a matter which, while not strictly pertinent to my theme, is of interest to us all.

The growing importance of Washington as a center for higher education is everywhere recognized. One need only allude to the Catholic University, the proposed Methodist University and the Carnegie Institution as examples of this tendency.

Its numerous laboratories, splendid general and special libraries and its unrivaled facilities for research work must more and more attract students and scholars.

With this tendency in the general educational field, why may we not hope for something of the kind in the more restricted domain of medicine? Is there any reason why we cannot have here a hospital and medical school of the very first class, sufficiently well endowed to enable it to command the best medical talent in the land, irrespective of location? Such an institution should be thoroughly national in character and absolutely independent of government or municipal aid, which so often paralyzes medical institutions. The aim should be to make such a foundation absolutely the best in the world.

As a modern medical school, to be successful, must be a vital part of a university, such a plant should be under the auspices of one of our well-established institutions of learning.

Such a project would take money, and plenty of it, but it is the belief of the writer that sooner or later this dream will be realized and that the capital of the richest nation in the world will have a plant for medical education which shall be unrivaled in its scope, national in its character and the recognized fountain head of medicine in America.

Myxedema, Parturition, and Eclampsia.—Herrgott has reported an interesting case, with marked symptoms of myxedema, in a woman of 18, who became pregnant. When labor occurred, repeated convulsions were observed, very severe in character. Her urine at no time contained albumin. The infant was born dead. In all she had 20 convulsions. She recovered completely. Herrgott believes that myxedema may have been the cause of the eclampsia, since there was neither hepatic nor renal insufficiency. (*Révue Médicale de l'Est*, September 1, 1902.)

[M. O.]

SOME PRACTICAL DEDUCTIONS FROM SIXTY-THREE SUCCESSFUL CONSECUTIVE OPERATIONS FOR INGUINAL HERNIA.

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It is not my purpose to compile any statistics nor to consider any phase of the subject of hernia, except in operative technique. I shall, therefore, offer no classification of the sixty-three cases upon which these observations are based, nor shall I quote any figures from others touching either the percentage of cures and their permanence or the relative frequency of different kinds of hernia in the sexes or at different ages, because these matters have no connection with, or bearing upon, the purposes of this article.

The operations which form the basis of this paper were done for inguinal hernia only and extend over a period of about seven years. In three instances the complete Halstead operation was done, a few cases (the exact number of which is unknown), occurring in very obese subjects with a flabby musculature, an operation practically identical with Halstead's, but modified by leaving out the cut through the abdominal wall, was made use of.

I have come to regard this operation with more favor than the complete Halstead operation in these cases. In it a portion of the spermatic circulation is removed in order to reduce the size of the cord where it traverses the abdominal wall, and the cord is placed outside the external oblique muscle, hence being covered by the skin and subcutaneous fat only. It also possesses the advantage of disturbing the muscles no more than the Bassini operation. In all cases other than those just mentioned Bassini's method was the one employed. In no instance, so far as I am aware, has a return of the hernia taken place, although all but a very few have been kept under observation for upward of three years.

This result in a large series of successive operations for hernia the writer believes can only be secured by careful attention to certain details which, if not ignored entirely, have been very much slighted in classical descriptions of the operation. These details it is the purpose of the present paper to consider.

The first point to which I shall invite attention is the incision. The principal defect in the incision as ordinarily made is that it extends too low down, encroaching too much on the highly vascular and very loose tissues at the upper part of the scrotum. This appears to be the result of a desire to reach the lower end of the sac and begin its enucleation from below upward, when, as a matter of fact, it can be far more quickly and easily identified and separated from the elements of the cord either within the inguinal canal or at the external ring, where the multitude of small veins of the cord become gathered into two or three easily avoidable trunks, than it can be done at any point lower down; while the tissues cut at this level, in addition to being comparatively nonvascular, are rigid and well calculated to oppose any extensive oozing, the exact reverse

being true of the fascial planes of the scrotum, yet the long incision extending almost as far below as it does above the external ring is still frequently observed in the operating-room as well as in the text-book illustrations.

My own incision seldom exceeds six cm. in length, its lower extremity corresponding very accurately with the location of the external ring, which is more quickly recognized by approaching it from above than below. The fibers of the external oblique aponeurosis are then separated to correspond with the length and direction of the incision in the skin, thus at once exposing the inguinal canal, the cord, a few vessels and the sac, covered by the infundibuliform fascia, which being also divided, the separation of the sac from the cord is accomplished with the utmost ease and drawn up out of the scrotum until its end is free. Separated gently in this manner, the oozing will be surprisingly slight, a ligature is almost never required and subsequent ecchymosis will seldom be seen. I have met with difficulty in thus quickly and easily separating the sac from the cord without hemorrhage only in two cases, both of which had previously been subjected to injections into the skin and fascia about the external ring by men who professed to cure ruptures without the use of the knife. In both cases the separation was only effected with the utmost difficulty and the contrast between these cases and those not so maltreated was most instructive.

The manner in which the stump of the sac is treated is a subject about which a great deal has been written, and it is one of much importance. I believe I have seen at least one case in which a recurrence of the hernia very promptly took place because of the faulty method of removing the sac. This case was No. 11 of this series and occurred in the person of a debilitated river man who had been operated upon by a colleague eight months previously for a left oblique inguinal rupture, the sac at this time being extensively torn, hence rendering it impossible to ligate the stump as accurately and securely as desired; in all other respects the operation was an ideal one and primary union was secured, yet the rupture re-appeared almost as soon as the patient left his bed. At the second operation much care was taken to avoid injury of the sac until its separation over a considerable area about the internal ring was assured. No recurrence followed the second operation. The patient was heard from three years later, and at this time there was no evidence of a return. In other respects the operations were practically identical.

In my opinion the thoroughness with which, not only the sac itself, but every particle of slack peritoneum about the internal ring is removed is of much importance in preventing a recurrence. The aim should be to render the visceral face of the internal ring as smooth as possible by amputating the sac high up within the abdomen and leaving no open passages or pouches of peritoneum to invite recurrence. The thorough separation and loosening up of the abdominal end of the sac can best be accomplished by the wet gloved finger, the sac being held loosely and the finger pressure falling upon the ab-

dominal wall and not on the peritoneum. A little roughness here is very likely to carry away a part of the sac at its attachment, leaving a hole leading out of the abdomen above the point at which the ligature can be applied. Owing to the ease with which the sac will often tear after being opened, this should be deferred, if possible, until the separation of its inner extremity has been fully accomplished. This applies particularly to recent herniæ the sacs of which are as thin as tissue paper and often as easily torn, thus rendering the perfect sealing of their tattered remains by the ligature very uncertain. An additional reason for not opening the sac until its thorough separation is complete and the ligature about to be applied is found in the self-evident advantage of exposing the peritoneum for the shortest time possible.

The material employed to ligate the sac and approximate the walls of the new canal and to close the skin wound is a matter of the utmost importance. I have never used nonabsorbable sutures, though I am well aware that excellent results have attended their use in the hands of others, but kangaroo tendon and catgut have both given me such excellent satisfaction that I have continued to use them to the exclusion of all other material. The only difficulty I have ever experienced with kangaroo has been in obtaining uniformly fine, strong fibers. I have always used the kangaroo imported into this country and sterilized by Dr. H. O. Marcy, and of the sixty-three operations here reported it was employed in forty-five, with the result that in only one case was any infection encountered after its use, and in that case the hard knot of a deep mattress suture of unusually coarse tendon was washed to the surface in a little pus which escaped in the night two weeks after the operation, without the hermetical sealing in the meantime having been disturbed; nor was any rise in the temperature after the first forty-eight hours noted or pain complained of, neither was there any inflammatory redness whatever about the wound on removing the dressing. In this case the pus was probably sterile and the man was not delayed a day in leaving the hospital in consequence of the accident.

In five late cases the pyoktannin catgut, prepared according to the method of Dr. Boeckman under the auspices of the Ramsey County Medical Society, of St. Paul, was employed, and in one of these cases a small fistulous opening at the upper end of the wound occurred which discharged some fragments of suture after some days. In this case also I think the fault was in the size of the suture employed, which was No. 3. These two cases impressed me with the importance of another practical point, namely, the risk of burying such heavy sutures in a locality where they are so subject to traction during vomiting, coughing and turning in bed.

I have closed the inguinal canal with No. 2, and even with No. 1 pyoktannin gut, and both have proved perfectly satisfactory. I regard both these sizes as preferable to No. 3 for this purpose. I have employed the pyoktannin catgut quite extensively during the past year in a large variety of operations and now prefer it to any other catgut I have ever

used. In six cases my notes are silent concerning the kind of suture material employed, but it was either kangaroo or catgut.

The buried subarticular suture was employed to close the skin in all but eleven of the cases, and in these it was closed with interrupted sutures of silk-worm gut. The former method, however, is vastly to be preferred.

As to the dressing which has been found most satisfactory, formerly it was my custom to apply a strip of gauze saturated in collodion directly to the wound; of late, however, it has been found more satisfactory to keep the collodion at a distance of one to two cm. from the wound, thus not interfering with the absorbing property of the gauze in the event of slight oozing taking place between the edges of the wound, as will sometimes happen in consequence of the handling necessary to return the patient to bed or from straining or vomiting. This seems to me preferable to leaving it beneath a non-absorbing layer of collodion to act as an excellent culture medium for the bacillus epidermidis albus.

Over the gauze, cotton and binder I apply a spica bandage to the pelvis and thighs, which precludes the possibility of the dressing working loose and exposing the wound to infection.

In conclusion, I would say that at the end of three weeks, for the first time, unless infection occurs, all dressings should be removed and the patient allowed to get up and out of bed, and so soon as he feels able he is allowed to return at once to his usual vocation. In no case have I ever applied a truss; if the operation proves a failure, a truss should be worn until the patient is again subjected to radical treatment, but if a cure be obtained, the patient not only does not need it but I am convinced it is capable of doing positive harm.

Mercurial Intoxication.—Albert Josias found 3 different symptoms of chronic mercurial poisoning, stomatitis, tremors and disturbances of nutrition which led to profound cachexia. The stomatitis was acute or chronic, generally the latter. The tremors were slight or marked, in the tongue, lips, extremities, etc. As the condition progressed, the cachexia became severe. When the symptoms are well marked, the diagnosis is exceedingly difficult. Death is rare from chronic mercurial poisoning. Yet the workmen are often incapacitated. The condition occurs among workmen gilding and silvering metal, making jewelry, silvering mirrors, making thermometers, incandescent lamps, photographic chemicals, etc. It is rarely due, nowadays, to the bichloride, biniodide, bichromate, fulminate or sulphate of mercury, generally following the use of nitric acid upon mercury. (*La Médecine Moderne*, September 10, 1902.) [M. O.]

The Prognosis of Polyneuritis.—Maurice Perrin has discussed the prognosis of polyneuritis in the *Revue Médicale de l'Est*, (September 1, 1902), finding that the disease may terminate in 3 ways. Recovery is the normal result, after lasting several months, rarely years, even after complications and severe symptoms. Death may occur early or suddenly, when the pneumogastric nerves become affected; or it may be due to some intercurrent affection or complication; or sequelæ may remain after recovery from the polyneuritis, such as tendon retraction, chronic peripheral paralyses with atrophy or psychical troubles. Besides, recurrence is always possible. [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending November 29, 1902:

SMALLPOX—United States.

			C.	D.
CALIFORNIA:	Sacramento.	Nov. 8-15.	2	
	San Francisco.	Nov. 9-16.	3	
COLORADO:	Denver.	Nov. 8-15.	3	
	Chicago.	Nov. 15-22.	6	
ILLINOIS:	Indianapolis.	Nov. 15-22.	3	
INDIANA:	Kokomo.	Nov. 15-22.	1	
	Lexington.	Nov. 15-22.	1	
KENTUCKY:	Biddeford.	Nov. 15-22.	9	
MAINE:	Boston.	Nov. 15-22.	36	
MASSACHUSETTS:	Clinton.	Nov. 15-22.	1	
	Weymouth.	Nov. 15-22.	1	
MICHIGAN:	Grand Rapids.	Nov. 15-22.	6	
NEW HAMPSHIRE:	Nashua.	Nov. 15-25.	12	
NEW JERSEY:	Camden.	Nov. 15-22.	2	
	Jersey City.	Nov. 8-16.	1	
NEW YORK:	New York.	Nov. 15-22.	1	
	Cincinnati.	Nov. 14-21.	6	
OHIO:	Cleveland.	Nov. 15-22.	12	
	Dayton.	Nov. 15-22.	1	
PENNSYLVANIA:	Hamilton.	Nov. 15-22.	4	
	Toledo.	Nov. 8-22.	15	
RHODE ISLAND:	Altoona.	Nov. 15-22.	2	
	Erie.	Nov. 15-22.	2	
SOUTH CAROLINA:	Johnstown.	Nov. 15-22.	5	
	McKeesport.	Nov. 15-22.	4	
RHODE ISLAND:	Pittsburg.	Nov. 15-22.	46	
	Providence.	Nov. 15-22.	1	
SOUTH CAROLINA:	Charleston.	Nov. 15-22.	2	

SMALLPOX—Foreign.

AUSTRIA:	Prague.	Nov. 1-8.	17	
BELGIUM:	Ghent.	Oct. 18-Nov. 8.	10	
BRAZIL:	Bahia.	Oct. 19-Nov. 1.	6	
ECUADOR:	Guayaquil.	Nov. 1-8.	2	
GREAT BRITAIN:	Dundee.	Nov. 1-8.	2	
	London.	Oct. 25-Nov. 8.	6	
INDIA:	Bombay.	Oct. 21-28.	3	
	Calcutta.	Oct. 18-25.	1	
ITALY:	Naples.	Nov. 3-10.	4	
	Palermo.	Nov. 1-8.	2	
MEXICO:	Mexico.	Nov. 2-16.	1	
RUSSIA:	Odessa.	Oct. 18-26.	1	
	St. Petersburg.	Oct. 24-Nov. 1.	16	
STRAITS SETTLEMENTS:	Singapore.	Sept. 27-Oct. 11.	3	

YELLOW FEVER.

COLOMBIA:	Panama.	Oct. 10-17.	5	
COSTA RICA:	Port Limon.	Nov. 1-8.	1	
ECUADOR:	Guayaquil.	Oct. 26-Nov. 8.	3	
MEXICO:	Mexico.	Nov. 2-16.	2	
	Vera Cruz.	Nov. 8-15.	16	

CHOLERA—Insular.

PHILIPPINE ISLANDS:	Manila.	Sept. 28-Oct. 5.	32	24
	Manila.	Oct. 6-12.	23	13
PROVINCES:	Provinces.	Sept. 28-Oct. 5.	9263	5276
	Provinces.	Oct. 6-12.	5658	3274

CHOLERA—Foreign.

EGYPT:	Alexandria.	Oct. 26-Nov. 1.	29	32
INDIA:	Calcutta.	Oct. 18-25.	16	

PLAGUE—United States.

CALIFORNIA:	San Francisco.	Nov. 15.	1	1
	San Francisco.	Nov. 18.	1	1

PLAGUE—Foreign.

AUSTRALIA:	Queensland, Bris-	July 1-31.	1	
	bane.	Oct. 21-28.	142	
INDIA:	Bombay.	Oct. 18-25.	9	
	Calcutta.	Oct. 19-26.	14	
RUSSIA:	Karachi.	Oct. 11-17.	1	
	Odessa.	June 1-Oct. 26.	49	17

The Operative Treatment of Cirrhosis of the Liver.—Lanz describes 2 cases of hepatic cirrhosis, in a woman of 54 and a man of 35, upon both of whom he performed laparotomy, relieving the ascites and suturing the omentum to the peritoneum. In both cases recovery resulted. Lanz believes the operation of epiploxy is indicated much earlier than it is usually done, in order to cause amelioration of the patient's condition. (*Correspondenzblatt für Schweizer Aerzte*, September 15, 1902.) [M. O.]

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.

See Advertising Page 8

VOL. X. NO. 24

DECEMBER 13, 1902

\$5.00 PER ANNUM

A Therapeutic Number.—The present number of the *Journal* is devoted largely to therapeutic subjects. We have included among the original papers a number of papers on surgical subjects that are closely allied to therapeutics. The term "therapeutics" is properly limited to the subject of the treatment of diseases by means other than surgical, but the modern surgeon is so aspiring that it is difficult to exclude him entirely from this field. At any rate, even if he does not properly belong to the purely therapeutic field, he is apt to crowd into it and to crowd the therapist out.

We are not an apologist for the surgeon in this matter: we merely recognize a tendency of the times. It is in abdominal diseases especially that the surgeon is inclined to crowd out the therapist; and, if we have given him a place in this therapeutic number, it is especially in the abdominal field, where in he always stands waiting to take up the work when the therapist gets ready to stand aside. This is pre-eminently so in cholelithiasis and in perforation of the bowel in typhoid fever. In these two domains we have concluded to let the surgeons talk for themselves in a therapeutic symposium.

Typhoid Fever at Atlantic City.—The paper by Dr. Philip Marvel, published in our issue of last week, furnishes texts for several sanitary sermons. As with many other sanitary lessons, the benefit has been secured only at the cost of suffering and death. The demonstration of the danger of eating raw oysters is complete and vivid, and the data which the Committee of the Atlantic City Academy of Medicine obtained will serve not only as suggestions to health authorities in many other summer resorts, but as a model for sanitary investigations by medical organizations. The process of evolution of the political machine in American municipalities has caused a great falling off in individual interest, and it is too often thought, nowadays, that the local scientific societies have no concern with public affairs and should leave entirely to the "authorities" the originating and carrying out of all reforms. A narrow

and selfish spirit among the citizens leads also to the view that it is a sort of treason to the community to call public attention to evils, sanitary and otherwise. It will "drive away visitors and business" it is said. The Atlantic City doctors have, however, fearlessly exposed the extent and nature of the evil, and have, we believe, eradicated it. They have also pointed out other conditions, which, though not as yet the cause of disease, may become so, and they have, by so doing, aroused the interest of the city authorities, who will promptly abate the perilous conditions, and secure to this great city by the sea the perpetuation of its claim as a safe resort for those seeking rest and recreation.

We may also draw from Dr. Marvel's paper a commentary on the methods of some official sanitarians. At the present day they often strain at a gnat and swallow a camel; they expend their energies and power on unimportant matters and leave the causes of disease untouched. During the past summer the State Board of Health of New Jersey made a sudden raid on some boardwalk dealers in non-intoxicating beverages. It was stated that this was brought about by reports of some persons having been made "sick" by some of the beverages. Considerable publicity was given to the fact that the materials would be analyzed, and, if necessary, prosecutions instituted. The whole offence in these cases was probably the substitution of some cheaper acid for the citric acid of fruit juices, and the use of some coaltar color. There is no proof that either of these substitutions rendered the beverage more unwholesome than true fruit juices, all of which, as usually consumed by Americans in summer time, are unwholesome, but there was opportunity for some display of authority. Meanwhile, thousands of oysters were being infected with sewage, and spreading disease in one of its worst forms, and neither the local nor the State Board was aware of the condition.

The Razlag Treatment of Leprosy.—The October number of the *China Medical Missionary Journal* contains a general report of the work of Dr. Adolph

Razlag, of Vienna University, in the treatment of four cases of advanced leprosy in Canton. This report deals with four cases only and describes the method instituted by Dr. Razlag. It is stated that the treatment is in no sense specific, that it is practically symptomatic and should generally be continued for from five to six months. The measure of success depends upon the method, strength and effective application of the remedies used. Every patient with leprosy is a law unto himself, and treatment must be directed to the leading symptoms. A general outline of Razlag's method may thus be given: Locally he advises general cold baths followed by a bath medicated with potassium permanganate and followed by friction of the indurated surfaces. Where the skin is abraded or broken, applications are made with hydrogen peroxide, soziodol, liquor arsenitis, liquor zinci chloridi, ointments of ammoniated sulpho-ichthyol, mercury and chrysarobin. The strength and application of these remedies are regulated by the symptoms present, and they are made only to perfectly clean surfaces. The internal or constitutional treatment consists in keeping the excretory organs active and paying especial attention to digestive disturbances. Arsenous acid and ammoniated sulpho-ichthyol are given in pill form. Iodide and salicylate of sodium are also administered, and all the remedies are pushed to their full physiological effect. It is stated that after eight days of treatment distinct improvement was observed and that after four weeks the pain and edema, which were marked, had largely disappeared, except on the most indurated surfaces, and that even extensive ulcerations were quite healed.

Dr. Razlag's work has not extended over a sufficient period of time or included a large enough series of cases for the profession to arrive at a safe estimate as to its value, but the general scope of his plan would seem to prove that cleanliness and careful attention to the abraded surface will make the lives of these patients much more bearable. Considering the constitutional means of treatment which Dr. Razlag employs, the remedies appear to us to be administered on purely empirical grounds. No claims are made that the method is a specific one, but the results are encouraging, and we look forward to a more complete report of Dr. Razlag's noble and self-denying work.

The Successful Application of Phototherapy.—The Institute of Experimental Medicine at St. Petersburg has undertaken the very important work of verifying clinically the claims made for Finsen's method of treatment. Although a number of papers on the results of these experiments already appeared in the *Vratch*, the official report first sees

light in the publication of the Institute (Vol. IX, No. 5). The objects of the experiments were: (1) To demonstrate practically on patients the efficacy of the method when applied to those cutaneous affections which were treated by Finsen; (2) to broaden the indications for the method so as to include other cutaneous affections hitherto not treated by this method, and (3) to elaborate and modify the method without, however, departing from the original principles on which it is based. The experimental cabinet was in operation from 1900 to 1901, and during that period 44 patients were treated. The cases included lupus vulgaris, lupus erythematoses, verrucose tuberculosis of the skin, epithelioma (rodent ulcer), vascular nevus and tropic ulcer. The results obtained may be called brilliant, considering the usually irremediable nature of these affections. Thus, of 26 patients affected with lupus vulgaris 8 (30 per cent.) were cured. Of 9 patients affected with lupus erythematoses one was cured; three decidedly improved, while the others discontinued treatment. One patient affected with cutaneous tuberculosis was improving when the treatment was discontinued. In 5 patients with nevus marked improvement was observed, when treatment was discontinued. Observations were also made on the effect of Finsen's method on some affections of the mucous membranes. The results were no less favorable. It, therefore, seems to be quite evident that in Finsen's method of utilizing the curative virtues of electric light we have a decided step forward in the treatment of a group of diseases which were usually looked upon as hopeless. The only disadvantage in the method is the high price of the outfit, which places it almost beyond the reach of the average practitioner.

However, sufficient clinical observations have already accumulated to show that, in the absence of Finsen's apparatus, electric lamps of various colors and intensity may be employed with advantage, especially in the treatment of affections of the mucous membranes. Minin (*Vratch*, 1901, No. 33) obtained excellent results in the treatment of lupus by means of an electric blue lamp of 50 candle power, properly adjusted. He also observed the marked analgesic properties possessed by colored electric light. Similar observations were made by Siebelt, Matchan, Engel, Kliatchin, Kourdiumoff and others. Recently, Tsiechanski (*Prakticheski Vratch*, August 31, 1902) reported 8 cases of tubercular joint affections, 5 in children and 3 in adults, successfully treated with electric arc light of 35 to 40 volts and 80 to 120 amperes, or 12,000 candle power. He concludes that the application of ray energy in the form of heat and light gives favorable results in the treatment of articular tuberculosis; that the

method is absolutely painless and replaces altogether all the other methods of treatment usually employed.

That electricity, that mysterious force, should also be harnessed by the physician for the cure of disease and the relief of human suffering is an achievement well in keeping with the progress of the twentieth century.

Urea in the Treatment of Tuberculosis.—Some time ago Dr. Harper advocated the use of urea in the treatment of tuberculosis and reported many cases in which marked improvement followed the use of this remedy. He pointed out that strong evidence seemed to favor the view that the infrequency of tuberculosis in gouty subjects is due mainly to the abundant nitrogenous diet, consumed by the majority of these individuals, which causes an increased production of urea and in this way rendered them less susceptible. On similar grounds he argues that the lessened tendency of the carnivora to contract tuberculosis is due to the amount of meat ingested, while, on the other hand, he ascribes the susceptibility of the herbivora to their diet, poor in nitrogen. Dr. Harper's articles on this subject have attracted the attention of the profession at large. At the present day many clinicians are giving urea a thorough trial, and their reports are looked for with much interest.

In the London *Lancet* of November 22, 1902, Dr. S. Vere Pearson states his views regarding the merits of this drug. He administered pure urea in seven selected cases of consumption, each of which seemed to afford a fair example for the trial of this drug, for the patients were not all of the same type; they varied in age, build and temperament, and the disease was not in all at the same stage. In all there appeared to be a reasonable hope of establishing an arrest of the disease. One out of the seven died; the average gain in weight was $4\frac{1}{2}$ pounds, and the average length of stay in the hospital was three months. Some improved in general condition, but in none did the physical signs show any appreciable improvement. In several there was an extension of the disease as manifested by physical signs. Pearson arrives at the conclusion, based upon a comparison of the progress made by these patients with the average progress made by similar patients treated by other methods, that the urea appears to exert no special influence either in arresting the ravages of the disease in the lung or in counteracting the deleterious effects upon the constitution. In addition he finds that the diuretic action of urea is variable and, on the whole, unsatisfactory, and that it does not act as a cardiac stimulant.

Antistreptococcic Serum in Scarlet Fever.—The attention not only of the physician, but of the layman, has been called to the treatment of scarlet fever by the use of an antistreptococcic serum, and in a very interesting paper by Dr. George A. Charlton, of Montreal, Canada, the importance and value of this treatment have been confirmed. Regarding the streptococcus, the author does not believe it to be the essential agent in the disease, as in mild cases the streptococci are not present. His bacteriological studies convince him that the streptococcus leads to a secondary infection, and that this secondary streptococcus infection is the cause of most, if not all, the unfavorable complications of the disease. The severity of the attack seems to be due to the concurrent action of this micro-organism and the causative agent of scarlet fever upon the susceptible individual, much as it has been noted that streptococcus infection renders diphtheria more severe, though the ill effects of this symbiosis in scarlet fever appear to be still more marked. The fundamental principle of the treatment is the administration of the antistreptococcic serum which counteracts the effects of the toxins of the streptococcus and brings about the destruction of that organism. For it appears, if this can be accomplished, the case resolves itself into a less severe type, and the prognosis becomes much more favorable. The quantity of serum injected has been moderate. The dose used is 20 cubic centimeters, but in those cases which, from the severity of the attack, seem to require a larger quantity, the dose has been repeated. The results obtained by those who have used this method of treating scarlet fever seem to be in accord in that there is after an injection of the serum a rapid subsidence of the pyrexia; an accompanying decrease in pulse-rate with improvement in tension and rhythm; prevention, or at least marked amelioration, of such complications as cervical adenitis, otitis media and albuminuria; and rapid and favorable convalescence in the majority of cases.

The Surgical Treatment of Placenta Previa.—Placenta previa stands with puerperal eclampsia as the two extreme complications of pregnancy; that is, from the point of view of the fetal and maternal mortality. The simple, though profuse, hemorrhage of the former is in and of itself not a complication that need be dreaded in these days of antiseptics and surgical proficiency. A simple hemorrhage may be controlled by aseptic tamponade or by the manual methods of compression, such as those of Hermann or Zweifel. But there are other factors to be considered in placenta previa. The attachment of the placenta may be central, and the

margin of the internal os and even the upper portions of the cervix become a network of distended vessel-mouths.

A uterus, the seat of placenta previa, may fail to contract after being emptied of its contents, and the hemorrhage then become almost or altogether uncontrollable. The low position of the placental site and the patulous condition of the uterine sinuses favor the introduction of the germs of sepsis. These serious problems induced the late Lawson Tait to suggest, just prior to his death, the operation of Cesarean section as a method of treatment for placenta previa. It is probable that he had in mind, not the general performance of this radical operation in every case of placenta previa, but its reservation as a final step in the graver cases. As is usual, this new suggestion was seized upon with avidity by the less conservative operators, and Cesarean section for placenta previa was reported here and there with varying results. The more conservative element, while attentively weighing the possibilities of this method of treatment, reserved final judgment until data could be secured.

The discussion at the meeting of the gynecologists and obstetricians at Atlantic City, and the views of the more recent writers on the subject, seem to indicate a very limited field of usefulness for the operation in placenta previa. The safer view is ably expressed by Professor Garrigues in his recent admirable Text-Book of Obstetrics as follows: "Cesarean section has been performed six times, and Porro's operation twice. The maternal mortality of only 6.8 per cent., casarean section cannot two, or 25 per cent. Even if the two cases are left out, because recourse to the abdominal operation was had too late, there still remains one mother dead out of six, or 16 2-3 per cent. of maternal mortality. When this is compared with Hofmeier's and Pinard's maternal mortality of 2.1 and 2.6 per cent., respectively, and the latter's infantile mortality of only 6.8 per cent., Cesarean section cannot be looked upon as an operation one should choose, except when forced to it. The saving of the children does not make up for the greater loss of the mother." Reynolds and Newell add to this that "in the vast majority of cases the mother's interests are best served by the performance of a rather rapid manual dilatation and version, after which the uterus should be firmly packed with gauze."

The conclusion which seems warranted at present is that Cesarean section—the Porro operation—is justified only in the extremely rare cases of central placenta previa, and not then unless the hemorrhage is uncontrollable or the condition such as strongly to indicate the development of a septic state.

Reversion in the Treatment of Cardiac Disease.

—It has always been considered curious by modern physicians how our medical ancestors could have blindly continued to administer such dangerous drugs as aconite and veratrum viride in cases of cardiac disease, because it seemed such a natural and ordinary thing that whenever the pumping organ was deranged there should be a distinct defect in the mechanism, resulting from diminution of bloodpressure, and consequently there would be no indication whatever for anything that would further diminish the vasomotor tone. It is not to be suspected for a moment, of course, that such a man as Austin Flint was incapable of judging the results of his treatment. He was perfectly competent to decide whether or not a patient was improving—perhaps a little more competent than some of his modern critics—but when the experimental therapists taught us that aconite and veratrum viride diminished the bloodpressure, it was considered another example of the patient getting well in spite of the doctor, of the reparative tendencies of nature overcoming the deleterious action of the prescribed drug, as well as of the disease. Not very long ago instruments were devised which enable us to measure with a fair degree of accuracy (quite sufficient, probably, for ordinary clinical work) the bloodpressure in the living. Such instruments as von Basch's, which is perhaps not very accurate; as Gärtner's, which possesses a fair degree of accuracy, and as that of Rivahocci, which possesses a high degree of accuracy, have begun to be rather generally employed. The astounding fact has been discovered that the bloodpressure in cardiac disease, instead of being diminished, is actually, in some cases, increased, and not slightly, but to a considerable degree. Now it follows that perhaps our theories were wrong and our drugging also. For this it is not fair to blame the experimental therapist, but rather the clinician who jumped to the conclusion which seemed reasonable before it had adequately been proven, and used his drugs, as he supposed, scientifically, but in fact incorrectly. It is not beyond the bounds of probability that in the near future veratrum viride, aconite and similar drugs will again find a recognized place in cardiac therapeutics, and we shall find, as so often before, that we should be cautious in our revolutionary tendencies.

Serum Treatment of Rheumatism.—The medical world has been prepared for a number of years past for the announcement of the discovery of an antitoxin for rheumatism. Such a bold proclamation has not yet been put forth, but a very interesting and suggestive piece of experimental work has just

been reported by one of the best-known students of the etiology of rheumatism.

Menzer (*Zeitsch. f. klin. Med.*, Band XLVII, Hefte 1 and 2) has prepared a serum after the method of Tavel, obtaining cultures of the streptococci of the throat in cases of rheumatism, and injecting these cultures, without increasing their virulence, into the animals from which the serum was to be obtained. It is impossible to standardize the serum, so he used small doses—5 to 10 cc. The principal clinical points to which he directs attention are, in the first place, the fact that reaction occurred after the injection of the serum into patients with rheumatism. Reaction also occurred in other cases of streptococcic infection of the air passages. He believes that the latter fact is a direct indication that the streptococcic infection in rheumatism is not specific, and that rheumatism is probably due to the same bacteria as are other disorders caused by nonsuppurative streptococcic infection. The occurrence of a febrile reaction—and particularly of a local reaction of the joints—indicates definitely, he thinks, the etiological importance of the streptococcus in rheumatism. As to the unfavorable results of the serum injections there was a general febrile reaction and a local reaction. There was often marked swelling, and skin eruptions were frequent; but all these symptoms, Menzer believes, are indications of the value of the serum, in that they indicate that it stimulates the organism to the production of an antitoxin. In chronic cases the local reaction is important, because it causes local circulatory activity and thus aids the organism in overcoming the persistent local infection. The author believes that the cases of chronic rheumatism which he has treated with the serum, demonstrate the value of the serum in this condition; and he considers, also, that in acute rheumatism, although the results were not extremely striking, the treatment aided the organism to overcome the infection. He feels positive that endocarditis was an uncommon complication when this method of treatment was used, only one case in about 30 which he treated exhibiting a persistent valvular lesion when discharged, and that patient having already had marked involvement of the heart when admitted to the hospital. He is inclined to think, also, that this treatment interferes with recurrences of the disease. Menzer does not speak with unbounded enthusiasm of his results, and perhaps this is likely to gain him more serious attention. The report is undoubtedly suggestive, and in the face of our helplessness in the fight against cardiac complications in rheumatism and our weakness in preventing many patients from joining the unhappy band of "chronic joint cases,"

it is earnestly to be hoped that what Menzer does claim may prove to be correct.

The Nonspecific Virtues of Diphtheria Antitoxin.

—Observations are accumulating to prove that diphtheria antitoxin possesses curative properties for diseases other than diphtheria. Thus, Schapiro (*Prakticheski Vrach*, 1902, No. 5) reported a case of traumatic erysipelas, the patient having been successfully treated with diphtheria antitoxin. Tsvietai-eff (*Ibid*, No. 22) reported 2 cases of erysipelas in persons who were cured by the same method, and Alexeieff also reports success achieved in 2 cases of erysipelas treated with antitoxin. Such observations do not quite fit our notions of the specific nature of antitoxins, and, while we are willing to admit that antitoxins, like many other substances, may stimulate phagocytosis to a degree sufficient to exert a beneficial influence on the course of the disease, we cannot see how antitoxins could be specific and yet neutralize indiscriminately any other toxins. Our entire list of specific antitoxins would have to be abolished were this the case, since a single antitoxin would serve as a cure-all. While these clinical observations are not sufficiently numerous or weighty to overthrow our conceptions of the nature of immunity, nevertheless they form a disturbing element and should be explained. It would seem that a satisfactory explanation could be found in assuming that, aside from the specific properties, antitoxins contain substances peculiar to the serum itself, and that such substances may in certain cases make a favorable impression on the course of the disease. Such an explanation is hinted at by Tsvietai-eff, who thinks that diphtheria antitoxin acts beneficially in erysipelas on account of the increased alkalinity of the blood which it brings about. He obtained very good results in the treatment of phlegmons by alkaline compresses, and believes that the effect is similar in both cases.

The Suppression of Yellow Fever.—At the Sanitary Conference of American Republics, held last week in Washington, D. C., under the presidency of Dr. Walter Wyman, Surgeon-General, U. S. P. H. and M.-H. S., the most important subject discussed was undoubtedly the etiology and suppression of yellow fever. The agency of the *Culex fasciatus* in spreading the disease was most elaborately shown by Dr. John Guiteras, formerly professor of pathology in the University of Pennsylvania, now of Havana University, who made the statement that there had not been a case of yellow fever originating in Cuba during the past 14 months. The absence of this dread disease is due to excellent sanitation, including good drainage, personal and municipal cleanliness, disinfection, hygiene, etc.,

and to the recognition of the fact that the mosquito transmits the germs of the disease. The early work of Finlay and the later investigations of the late Major Reed have thus borne excellent results. From his personal observations during several years' residence in Cuba, Dr. Guiteras offered a resolution to the effect that the bite of certain mosquitoes is the only proved natural means of the propagation of yellow fever. Dr. Souchon, president of the Louisiana Board of Health, was opposed to this, citing several cases in which mosquitoes did not apparently enter into the etiology of the disease. Nor could the delegates, who came from Brazil, Cuba, Chile, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Salvador, Uruguay and the United States agree upon whether 5 or 10 days quarantine was sufficient detention for persons suspected of having yellow fever. It was decided, however, that the question of the importation of infected mosquitoes on vessels required further study before any great modification of the present quarantine laws could be recommended. It is hoped that this question will be settled at the next meeting of the conference, at Santiago de Chile, March 15, 1904. As yellow fever exists in many of the countries represented at the conference, it will be of much interest to watch how soon and how well the example set by the United States in Cuba will be followed.

A Memorial to Dr. Walter Reed.—In our issue of last week we commented on the services of Major Walter Reed to science and humanity, and we suggested that Congress should make some provision for his family, and that an appropriate testimonial should be erected to his memory. We return to this subject now, because we realize fully that such things are not often done unless the public is constantly reminded by some one to do them.

We are glad to see that Dr. A. C. Abbott, of the University of Pennsylvania, has the same thought that we had, and that he has written a letter to the *Philadelphia Press* expressing it. As a friend of Major Reed, as well as a scientist, Dr. Abbott is well qualified to speak of the dead army surgeon, and of the work he did in gaining control of yellow fever. Let us hear him.

"Had we been told that the elaborate and expensive system of maritime quarantine against yellow fever, the commerce-destroying and annoying practices of railroad and shot-gun quarantine, were needless and powerless, since they were projected in the wrong direction, we should have hesitated for some time before believing. Yet this, too, we now know to be true, all through the services of the small company of men with Reed at their head who, regardless of the menaces to health and life, took up their abode in

the very hotbed of the disease and remained there (save those who died in the cause) until they had definitely solved a problem that had baffled all previous investigators."

Emerson has said: "There is properly no History; only Biography." May the same thing not be said in a certain sense of Science? Is not Science after all merely the record of individual achievement—even in many cases of individual heroism? Reed and his fellows faced a deadlier foe in Cuba than was faced by the soldiers in the field; and they won, in the pest-holes of Havana, an inestimably more valuable victory for their country and for mankind than the army won on San Juan Hill. Let the public remember this fact, and let Congress also not forget it.

Peace hath her victories no less renowned than war.

Accidents in the Coal Fields.—Now that the grievances of the coal miners in Pennsylvania are receiving so much public attention, it is interesting to read some of the statistics bearing on the subject. According to the United States Geological Survey, the following are the figures for accidents, fatal and nonfatal, in 18 States and Territories during 1901.

The total number of lives lost in these 18 States and Territories was 1467, and the number of accidents was 3643. The total number of tons of coal mined for each life lost varied from 425,094 in Maryland to 49,424 in Indian Territory. The average number of tons mined for each of the 1467 lives lost was 188,668.

In Pennsylvania the mining of anthracite coal was twice as fatal as the mining of bituminous coal. In the anthracite mines 131,524 tons of coal cost one life. The total number of men killed in these mines during the year 1901 was 513. In the same period 1243 men were injured; 227 wives were made widows, and 624 children were left fatherless. The anthracite fields of Pennsylvania furnished a larger number of killings than any other fields in the United States. The next highest record was that of West Virginia, where 134 men were killed. Coal mining is from its very nature a dangerous occupation. How it compares with other dangerous employments we do not know. It is to be hoped that the investigations of the present Commission, appointed by President Roosevelt, will throw some light on the general hygienic features of the miner's life and surroundings.

The mining of anthracite coal seems to be more dangerous than the mining of the bituminous variety. This may be due partly to the depths of the mines and other peculiarities of the work. The State laws regulating mining are supposed to be well conceived and well executed.

Insuring Children's Lives.—A recent case in Philadelphia, in which suspicion has been directed against a father and mother of having administered arsenic to their children for the purpose of securing insurance money, has again directed public attention to the whole subject of insuring the lives of young children. As that particular case is still the subject of legal inquiry, it would be highly improper for us to express an opinion upon it, and we most earnestly trust for their own sakes and the sake of humanity, that these unhappy parents will be fully exonerated. The general subject, however, is one that ought no longer to be ignored. A few years ago a wretched woman was hanged in this city for this crime.

If it should ever be ascertained that the insuring of the lives of young children furnishes a temptation to poverty-stricken parents to perpetrate this most unnatural and most horrible crime, the law should prohibit such insurance. A few authenticated instances of such crime should be sufficient ground for condemning the whole practice. In fact, the ugly suspicion is aroused that instances of such crime may have occurred and never been suspected. Death from gastro-intestinal disease is very common in young children, and the symptoms of arsenical poisoning might readily be overlooked. This fact cannot be too much insisted upon.

It is against good polity to sanction any usage that is found to offer an incentive to crime. The insurance of helpless little children may constitute such a usage. The subject is one that has already occupied public attention in other countries as well as in the United States.

Utilizing Swamps for the Sites of Public Institutions.—Dr. J. Madison Taylor has recently written a long letter to the *Philadelphia Press* in which he argues in favor of this city's acquiring and improving the low-lying land along the Schuylkill River for a site for the Almshouse. Dr. Taylor says truthfully that large cities are often obliged to reclaim waste land, and that such reclaimed land may become most valuable. There are no insuperable obstacles in the way of modern engineering accomplishing this feat, and in fact it has often been done.

Instances are not hard to find. In the city of Washington the low-lying land along the Potomac is being reclaimed, improved and made immensely valuable. In Boston the best part of the residential district of the city stands on filled-in land that was once overflowed by tide water. Almost the whole kingdom of Holland is an historic instance of the

enterprise of a people against the inroads not of a river, but of the sea itself.

There is another aspect of this subject. The improvement of swamp lands may be not only a good thing commercially, but a most desirable thing from a sanitary standpoint.

It may be recalled that the *Journal* had this particular land inspected by Dr. Leffmann, a sanitary expert, and that it published his very conservative report. That report did not deal in wholesale denunciation. Nevertheless, we wrote against the scheme for what at the time seemed sufficient reasons. We are ready, however, to be convinced, and we confess that Dr. Taylor's forceful letter has made something of an impression on us.

Animal Life Versus Human Life.—Dr. Keen, in his letter to Senator Gallinger, has made a perfectly legitimate use of the *argumentum ad hominem*. He asks the Senator what the opinion of the parents of young Aikin would be about the propriety of sacrificing the lives of a few useless animals in order to save that of their son? We should like to supplement that question by asking Senator Gallinger what *his* opinion would be if his own life or that of his own son (if he has one) had been the stake?

Dr. Keen has done well to utilize a conspicuous case, while it is still fresh in the public memory, to point the moral of this whole question. One such case is worth all the threadbare arguments which have so long done duty in this controversy.

The Doctor in Cartoon.—*Vanity Fair*, an alleged humorous journal of Great Britain, has been caricaturing some of the eminent medical men of London. We are not certain that we are called on to sympathize with our confrères. No man is famous until he is cartooned, and *per contra* no man is cartooned until he is famous. There may be a little comfort for our British colleagues in the thought that they are eminent enough to be fair game for the caricaturists. In a certain sense this may be the next best thing to being a baronet.

A writer in *Vanity Fair* takes a somewhat similar view, for he says, "There is a fierce light which beats upon the eminent politician, advocate, ecclesiastic, sailor, merchant, philanthropist, or criminal," and he infers that such men must pay the penalty of greatness. To this the *Medical Press and Circular* replies somewhat ambiguously that medical men are not in any one of these classes, unless it be "philanthropist or criminal!"

Current Comment.

THE VICTORIES OF PEACE.

Were the discoveries concerning the propagation and spread of yellow fever, with their outcome, the suppression of yellow fever in Havana, the single advantage from our war with Spain, they would have been cheaply purchased had their price been the entire cost of that war.

In view of the magnitude of the services rendered by Major Reed to his country and to humanity, it is not surprising to find it generally taken for granted that a fitting provision has been made for him by the nation to which his labors meant so much. In this connection it is proper to state that Major Reed's legatees are at the moment and by law entitled to a pension of just \$25 per month, neither more nor less.

As one who enjoyed an intimate personal acquaintance with Major Reed, who was familiar with his high-minded ideals and ambitions for the advancement of knowledge, for the good of mankind, I am justified in saying that the question of material reward for his work occupied but a small part of his attention. But that is not the point. The services rendered demand of those who enjoy their advantages a fitting and lasting testimonial, and no more acceptable legislation by Congress could at this time be considered than that aiming appropriately to recognize the magnificent work done by one of the country's most loyal, capable and distinguished citizens.

—Dr. A. C. Abbott, in a letter to the Press.

KILLING PEOPLE BY TELLING BRUTAL TRUTHS.

Many people are killed by brutal truths. Some physicians are so conscientious—and so tactless—that they think they must tell patients the whole truth when they believe they cannot recover, instead of giving them the benefit of the doubt, for every physician knows that nearly always there is a doubt which way the case will turn. Cheerful encouragement has saved many a life by helping it to pass a crisis favorably when the actual truth might have killed the patient or reduced his rallying powers to the danger-point. In all the affairs of life, cruel bluntness in stating cruel facts has caused untold misery and broken many friendships. Truth itself changes from a jewel to a dangerous weapon in the hands of a tactless person.

—Success.

Correspondence.

DIET IN TYPHOID FEVER.

By L. R. MARKLEY, M. D., of Whatcom, Wash.

To the Editor of the Philadelphia Medical Journal:

In your Journal of November 15 is a very interesting article on the above subject from the pen of Dr. W. E. Robertson. The treatment of typhoid fever has been gone over thousands of times and yet there still remains something to write about.

The mortality tables furnished by the doctor were a surprise to me. I thought the death-rate was much lower. I have been in active practice 20 years, and I know that my death-rate has not been over 5%. I have attributed this low rate to several reasons: First, my patients never get a drop of alcoholic liquor of any kind. I hold that alcohol has no place in medicine. (2) I give a very liberal diet. I received my lesson years ago in 1885. I have never forgotten that lesson, and I now believe that many typhoids are literally starved to death. At the time mentioned I was practising on the frontier, among the cow-punchers and ranchers. I often treated patients 25 and 50 miles in the country. A colony had located in a fine valley 40 miles distant. They had no wells, and they hauled their

water in barrels for 15 miles from a spring. This, I think, was the cause of the epidemic. They did not have any cows, everybody used condensed milk until the next season. They all lived in tents until they had time to build sod or log houses. In this epidemic I did not even have nice cold water for the patients until I begged of them to hurry and dig a well. As I said, we had no milk, and the best I could do was to feed them on custards made with condensed milk. I would take up a sack of California fruits each trip—pears and oranges. As soon as the well was dug I used lots of cold water. One young man was put in a pack. Some of the wiseacres shook their heads and said, "That young doctor will kill all these sick folks with his everlasting sponging."

In those days I used the antiseptic treatment as I now do. Then I used Bartholow's treatment of carbolic acid and iodine in small doses. There were 6 patients in this neighborhood and all recovered.

A short time after that a young man in town came down with fever. He had an absolute aversion to all kinds of food. He did not take any nourishment for 2 weeks to speak of. In desperation I asked him if there was anything he thought he could eat. He replied that he might eat some baked apples. He ate nothing but baked apples for two weeks and he got along nicely. I have come to think it is almost criminal to compel a patient to take milk when he rebels against it. A liberal diet, no alcoholics, plenty of water inside and out, antiseptics, and strychnine have given me a very low mortality.

MIDSHIPMAN AIKIN AND VIVISECTION.

An Open Letter to Hon. Jacob H. Gallinger, Chairman of the Senate Committee for the District of Columbia, Washington, D. C.

By W. W. KEEN, M. D., of Philadelphia.

My Dear Sir:

As you have repeatedly introduced bills into the Senate for the purpose nominally of regulating experiments upon animals in the District of Columbia, which bills, however, if they had become laws, would in fact have prohibited many, if not all, of them, I deem it my duty to call your attention to the case of Midshipman Aiken, of the United States Naval Academy, who was recently injured in a football game. My reason for doing so is to show you by a single concrete example that knowledge gained by animal experimentation is an immense boon to humanity and that, therefore, such experiments should be heartily encouraged.

The facts of Mr. Aiken's case are as follows: When I first saw him, three days after the accident, I found that he had been unconscious for a half hour after the accident and ever since then had complained bitterly of headache, which he located always in the forehead. Mentally he was very dull, though not comatose. His pulse was slowed down to 52 instead of being 72, the normal. Soon after the accident he began to develop convulsions, first in the right leg, afterward in the right arm also, the right arm being finally the chief seat of the convulsions. When they were very severe they involved the left side also. The face was never involved. In 6½ hours after I first saw him he had 24 of these attacks, all limited to the right arm. They were not attended with any loss of consciousness. They exhausted him very greatly, especially when they were excessively severe. Several times it was necessary to give him chloroform.

There was no fracture of the skull. The only physical evidence of any injury was a very slight bruise at the outer end of the left eyebrow.

Had I seen this case before 1885, I should have been unable to explain why the spasms were chiefly manifested in the right arm, and from the evidence of the slow pulse, the headache, the stupor, the bruise in the left temple, ect., I should have been justified in inferring that probably

the front part of the brain was injured at the site of the bruise. Had I opened his skull at that point, I should have found a perfectly normal brain and should have missed the clot. The young man, therefore, would have died whether his skull had been opened or not.

In 1902 observe the difference. As a result of the knowledge derived from experiments upon animals which have located precisely the center for motion of the right arm on the left side of the brain near the top and a little in front of a vertical line drawn through the ear, and disregarding entirely the site of the headache and the bruise, I reached the conclusion that there had been a rupture of a blood-vessel within the head, which had poured out a quantity of blood, and that the situation of the clot should correspond to the "arm center." The location of this arm center was far away (about three inches) from the location of the bruise, and its position was fixed absolutely as a result of experiments upon animals, confirmed later by many operations on human beings and also by post mortems.

As soon as the skull was opened at this point, the clot was found, its thickest point being exactly over the arm center, and 9 tablespoonfuls of blood were removed, with the result that the patient's life has been saved. The blood had first been poured out over the "leg center," which is located a little higher up than that for the arm. This explained the early spasms in the right leg. The clot did not extend, however, further down than the arm center. This explained why the face was never convulsed, for the "face center" lies just below that for the arm.

I think if you were to ask the parents of this young man how many animals they would be willing to have sacrificed in order that their son might have his life saved, there would be no doubt of the answer. Indeed, had it been your own son, I cannot doubt the answer. But this is only one of hundreds of cases in which a similar exact localization has been made by many surgeons, both in Europe and America. Yet, by a curious coincidence in the very same issue of a Baltimore newspaper containing a reporter's account of the successful operation on midshipman Aiken there is a letter signed by an active antivivisectionist agitator, which, among other misstatements and misrepresentations usually found in such publications, asserts that "brain surgery is disregarded."

If the laws which you and your friends advocate were in force, the conditions for scientific investigation in medicine in this country would be quite as deplorable as those in England. For example, when Lord Lister, who has revolutionized modern surgery, largely as a result of such experiments, wished to discover possibly some still better way of operating by further experiments, he was obliged to go to Toulouse to carry them out, as the vexatious restrictions of the law in England practically made it impossible for him to continue there these pre-eminently humane experiments.

Again, when Sir T. Lauder Brunton, in London, started a series of experiments on animals to discover an antidote for the cobra and other snake poisons of India, where every year 20,000 human lives are sacrificed by snake bites, these beneficent researches were stopped by the stringent British laws to protect animals. Meanwhile half a million of human beings have hopelessly perished.

Who, I may ask, is the more humane; he who, doubtless with the best and sincerest motives of love for dumb beasts, would prohibit experiments upon animals and thereby prevent the acquisition of such knowledge and so compel surgeons to stand with folded arms and see innumerable lives thus needlessly sacrificed; or he who, by properly instituted experiments, would discover such new truths and apply them to the service of humanity?

The antivivisectionists have frequently denied that surgeons have learned anything from such experiments. I presume that I may be considered a competent witness as to the source at least of my own knowledge, and I state with the greatest positiveness that, without the knowledge

derived from experiments upon animals which have demonstrated the facts of cerebral localization, I should never have been able to locate the clot in Mr. Aiken's head and to remove it, nor should I have been able in the last 15 years to locate numerous tumors and other brain troubles and relieve many of them. What is true of myself is equally true of other surgeons.

In view, therefore, of the evident and positive benefit of such experiments, I trust that you will be willing to desist from further efforts at such repressive and, as I regard it, most inhumane and cruel legislation.

As this matter is of vital importance to the well-being of the entire community, I shall take the liberty of giving this letter to the press as soon as you have received it.

Reviews.

A Manual of Practical Medical Electricity. The Röntgen Rays and Finsen Light. By Dawson Turner, B. A., M. D., F. R. C. P., Ed., M. R. C. P., Lond., Fellow of the Physical Society, Lecturer on Experimental Physics, Surgeons' Hall, Edinburgh, Additional Examiner in Experimental Physics to the Edinburgh University, Medical Officer in Charge of the Electrical Department of the Royal Infirmary, Edinburgh. Third Edition, revised and enlarged. New York, William Wood & Co. MDCCCCH.

The third edition of Dr. Dawson Turner's well-known work is now presented to the medical public. The revision has been thorough, and much new material has been added, including several new chapters on the treatment of disease by the Röntgen rays and Finsen light. A full description of apparatus for use in the charging of accumulators in private houses and a full discussion of the Apostoli treatment has also been included. The electrical resistance of the blood is considered in the chapter on electrical diagnosis. In our opinion the most satisfactory portions of this work are those dealing with electrophysics and electrophysiology, while especial praise can be bestowed upon the brief but satisfactory discussion of the Röntgen rays. The book is well illustrated and typographically everything that can be desired. [T. L. C.]

The Physician's Pocket Account Book. Consisting of a manilla-bound book of 208 pages and a leather case. By J. J. Taylor, M. D. Published by the Medical Council, Philadelphia.

This valuable book, capable, from its size, of being slipped comfortably into an overcoat pocket, must be of especial service to the busy practitioner. For he can keep an exact account of visits made and amounts due, all jotted down in full at the time the visit is made. Though small, there seems to be plenty of room for all necessary notes. The book is said to stand every legal test, since a physician is able to prove his account in court or to collect his account from a decedent's estate, while his widow or executor can collect from debtors after his death, all from this little book. Nor is complicated bookkeeping necessary. There is space for 224 separate accounts, with an index, obstetric calendar, vaccination record, death record and cash book. The book may be started at any time of the year, and will be appreciated by the busy physician. [M. O.]

Transactions of the Vermont State Medical Society at the eighty-eighth annual meeting held at Montpelier, Vermont, October 10 and 11, 1901. Brattleboro, Press of E. L. Hildreth & Co., 1902.

The transactions of the Vermont State Medical Society at the eighty-eighth annual meeting is an especially welcome volume, since it contains among other reports the proposed new constitution and by-laws of the State Society. Eighteen papers are contained in the book, including the annual address of the President, Dr. W. D. Huntington. The field of surgery is well represented. Dr. S. H. Weeks, of

Portland, Maine, has presented an admirable discussion of gall-stones as a surgical affection. Dr. Henry James contributes a paper on gunshot wounds of the abdomen, and Dr. C. W. Milliken reports two cases of pudendal hernia complicating pregnancy. Dr. L. B. Newton reports a case of dislocation of the hip during normal labor. Besides these which we have mentioned, the remaining papers are of interest and value. [T. L. C.]

Transactions of the American Microscopical Society. Volume XXIII. Edited by the Secretary, H. B. Ward, The University of Nebraska, Lincoln.

This volume contains a number of valuable articles on morphology of some of the more obscure microscopical organism and other matters of scientific interest. The medical reader will be especially interested in the papers on "The Morphogenesis of the Stigmata and Stomata Occurring in Peritoneal and Vascular Endothelium," by A. E. Hertzler; "On the Amount of Carbonic Acid Dissolved in Natural Waters and the Effect of These Gases Upon the Occurrence of Microscopic Organisms," by G. C. Whipple and H. N. Parker; on "Modification of Some Standard Apparatus to Facilitate the Work of the Histologic and Embryologic Laboratory," by S. H. Gage, and on "Laboratory Photographic Apparatus," by the same well-known author. The volume contains also a warm tribute to the memory of the Spencers (father and son) and Tolles who have done so much for American microscopy. The short biographical sketches of these great inventive geniuses are very touching and show in the biographer, W. C. Krauss, a warm regard for the men as well as the science which they advanced by their inventions. He tells us, for instance, that the last 10 years of his life Tolles spent amidst "suffering and hardship, working at his bench when he should have been in bed, denying himself all the luxuries and many of the comforts of life. During his last illness he had the microscope brought to his bedside and there on his deathbed examined and tested the lenses. Only a few minutes before his death he was occupied in correcting the degrees of aperture of an imaginary lens, and when he reached 150° he stopped, turned his head, and said faintly, "Good-bye," on November 17, 1883." The article ends with a quotation from H. L. Smith, who said that "when the name of many a successful man, as the world counts success, shall have been forgotten, and the marble on which alone it is recorded shall have crumbled away, that of Spencer will live; nor will it be forgotten until the human eye no longer needs a microscope, but shall see clearly the now hidden things of God." The custodians report shows that \$1,208.05 have been received toward the Spencer-Tolles fund, the income on which shall be, according to the by-laws of the society, "expended for the encouragement of research."

As the papers in this volume are above criticism, we can do no more than commend the Society for the valuable contributions it is making to American science. [A. R.]

Transactions of the American Climatological Association for the Year 1901. Vol. 17.

The Transactions of the American Climatological Association is a most creditable publication. A large part of the scientific portion is, as it should be, devoted to the subject of tuberculosis. Among the most interesting articles is that of Stubbert upon the classification of pulmonary tuberculosis, which consists essentially of a careful definition of the generally accepted terms employed for the different subject, and two interesting articles by Weber and Hance on the home treatment of tuberculosis. Weber, in particular, advocates the employment of creosote and also the use of antipyretics to control the temperature. Hance, on the other hand, lays greater stress upon general hygienic measures. It must not be supposed, however, that the Association has neglected climatology. There is a series of valuable articles upon this subject, particularly one on Porto Rico and several upon the climate of the eastern portion of the United States. Curtin describes the largest recorded aneurysm of the heart. The Transactions are well printed, the illustrations are excellent, and the scientific material embodied reflects great credit upon the American medical profession. [J. S.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

University Hospital, Philadelphia.—Plans are now being prepared for enlarging the hospital of the University of Pennsylvania to twice its present size, involving an outlay of fully \$300,000. The plans are being prepared in such a manner that, whenever donations or bequests may be received, additions may be made which, together, will form a series of buildings in architectural harmony. The present accommodations of the hospital are for 250 patients, but as many as 280 have been accommodated at one time this year. The first changes to be made will be to bring the front of the present buildings on Spruce street out to the street.

Municipal Hospital, Philadelphia.—It has been decided to purchase the Macalester Farm, consisting of 58¼ acres, in the 33rd ward, bounded by the New Cathedral Cemetery on the south, Greenmount Cemetery on the north and Second street on the west, for the erection of a new municipal hospital. The money to pay for this will come out of the appropriation of \$215,000, from the proposed temporary loan of \$500,000, for the purchase of a site of the Municipal Hospital, Almshouse and Department for the Insane. It is now said that the sites for the new almshouse and insane hospital will probably not be secured until the new year. They will probably be upon separate properties.

Dr. S. Weir Mitchell Honored.—At the exercises to be held on Washington's Birthday next, under the auspices of the University of Pennsylvania, Dr. S. Weir Mitchell, who last year read a poem entitled, "The Birthday of Washington," will this year deliver the University Day oration.

Philadelphia Pediatric Society.—At the last meeting, held December 9, Dr. Abraham Jacobi, of New York, delivered an address upon peribronchitis and interstitial pneumonia. After the meeting a large reception was given by the members of the society, in Dr. Jacobi's honor, at the Hotel Stenton.

The Health of Philadelphia.—During the week ending December 6, there were 6 cases of smallpox, with one death, reported, 2 of them being in the 28th. ward and one each in the 4th., 15th., 17th. and 19th. wards. There was also a slight increase in the number of cases of typhoid fever and diphtheria, as compared with the preceding week; the number of cases of scarlet fever, on the contrary, was much less than that reported for the week before.

York Hospital, York, Pa.—M. D. Martin has given \$25,000 to the York Hospital, to be used for erecting and equipping an operating room.

Dr. Lorenz in Philadelphia.—Dr. Adolf Lorenz, of Vienna, arrived in Philadelphia December 8. On the evening of December 10 a large reception was given in his honor by the Medical Club of Philadelphia, at the Hotel Bellevue. The entire afternoon of December 11 was devoted to operating at Jefferson College Hospital. For this clinic over 500 invitations were distributed, including representatives of the hospitals of Philadelphia, the larger cities throughout the State, and the States of New Jersey and Delaware. Surgeons were present from Pittsburg, Erie, Trenton, Wilmington, as far north as Maine and Canada, as far west as Indiana, and as far south as South Carolina.

Wiener Verein, Philadelphia.—At the third annual meeting of this society, formed of physicians and surgeons who at some time studied in Vienna, held December 6, Dr. Charles S. Turnbull was elected president, and Dr. C. Y. White, secretary and treasurer, for the ensuing year.

State Hospital for the Insane, Norristown.—Attention has again been called to the overcrowded condition of this hospital. There are 2122 patients in the institution, 180 men and 186 women patients being compelled to sleep in the corridors. The trustees are unable to take any action until the legislature of Pennsylvania shall authorize the erection of additional buildings.

Obstetrical Society, Philadelphia.—At the last meeting, held December 4, Dr. Howard A. Kelly, of Baltimore, read a paper, by invitation, on diseases of the urethra and Skene's ducts. After the meeting a reception was given to Dr. Kelly and the members of the Obstetrical Society at the home of Dr. John M. Fisher, president of the society.

Society Meetings Next Week.—The following sections of the College of Physicians, Philadelphia, will hold meetings next week, at 8.15 P. M.: Tuesday evening, December 16, Section on Ophthalmology; Wednesday evening, December 17, Section on Otology; and Thursday evening, December 18, Section on Gynecology.

NEW YORK AND NEW JERSEY.

E. N. Gibbs Memorial Prize.—The New York Academy of Medicine announces that \$1,000 will be awarded to the author of the best essay on the etiology, pathology and treatment of diseases of the kidneys. Essays must be presented on or before October 1, 1904, and must be in English, typewritten, designated by a motto or device, and accompanied by a sealed envelope bearing the same motto or device, which shall contain the name and address of the author. No envelope will be opened except that which accompanies the successful essay. The Academy reserves the right, according to the direction of the donors, not to award the prize if no essay shall be deemed worthy of it. The Academy will return unsuccessful essays, if claimed within 6 months. An essay must show originality in order to obtain the prize. The competition is open to members of the regular medical profession of the United States. The original of the successful essay shall be the property of the Academy and will be published in its transactions. All essays should be transmitted to the committee of the trustees of the New York Academy of Medicine on the Edward N. Gibbs Memorial Prize, 17 West 43rd. street, New York City.

Presbyterian Hospital, New York City.—The foundation of this hospital, which occurred 34 years ago, was celebrated December 6. A special anniversary service was held, at which a number of addresses were made.

Muhlenberg Hospital, Plainfield, N. J.—The corner-stone of the new buildings, to cost \$125,000, the gift of J. H. Wright, of New York, was laid December 6, at the corner of the Wright Memorial Operating Pavilion.

Epilepsy in New Jersey.—The managers of the State Epileptic Village report that there is one epileptic in New Jersey for every 500 of population. There are now 85 patients under treatment in the village. Since 1898, 9 patients have been discharged cured.

Smallpox in New Jersey.—There are still several cases of smallpox isolated throughout the country towns of New Jersey, but there are no cases at present in Camden, the last patient having been discharged from the Municipal Hospital last week. Bridgeton has built a well-equipped hospital for the treatment of smallpox patients, and all suburban trolley cars are being disinfected from time to time.

Cartwright Lectures, College of Physicians and Surgeons, New York City.—These lectures, given under the auspices of the Alumni Association of the College of Physicians and Surgeons, will be delivered at the New York Academy of Medicine, December 17, 29 and 30, by Dr. R. C. Cabot, of the Harvard Medical School. The first lecture will be a study of the urinary analysis and post mortem findings in 500 cases of disease affecting the kidneys; the second lecture will be a clinical study of the action of alcohol in disease, with special reference to its effect on the circulatory system; and the third lecture will be an experimental study entitled, Truth and Falsehood in Medicine.

NEW ENGLAND.

The Foot and Mouth Disease.—The report of the epidemic of aphthous stomatitis, which has recently been reported as wide-spread among the cattle, sheep and hogs of New England, has been proved false in a number of cases. Statistical reports show that at present between 1500 and 2000 animals have the disease, and most of these will probably be slaughtered, the Government indemnifying the owners of the herds killed for their losses. Dr. Peters, chief of the Massachusetts State Cattle Commission, declares that there are but 101 infected herds in Massachusetts. Only 2 cases have as yet been reported among human beings from drinking the milk of infected animals, in Providence, R. I. Dr. Salmos, of the Bureau of Agriculture, Washington, believes that the disease will be wiped out in 2 or 3 weeks. It is also believed that by that time the English quarantine against New England cattle will be raised. Pennsylvania, New York and New Jersey are absolutely free from the disease, as are

the Western States. The Department of Agriculture has asked for the appropriation of \$1,000,000 for exterminating the disease.

The Health of Boston.—For the week ending December 6 there were 23 cases of smallpox reported with 7 deaths. One of the fatal cases was a woman who, after having been vaccinated, immediately washed the virus off with alcohol. The family did not believe in vaccination. The father contracted the disease and was removed to the hospital. The Board of Health disinfected the house and directed that the wife, daughter and grandmother be vaccinated. The family physician, who was called in, told them that vaccination would do no good, but in order to conform to the regulations of the Board of Health, he would "scratch" their arms and put on the virus, and when they returned home, he told them, they should wash it off with alcohol. The grandmother was the only one who did not follow this advice, and she is the only member of the family who escaped contracting smallpox. One case appeared in Brookline and other cases are reported at Maynard, Mass., and Pawtucket, R. I.

Danvers Insane Hospital.—This hospital, which was built to accommodate 450 patients, now contains 1150, the corridors being filled with cots. The trustees of the institutions have asked for an appropriation of \$25,000 in addition to the \$50,000 already appropriated for completing buildings for 100 patients.

WESTERN STATES.

Plague in San Francisco.—Two new cases of the plague have occurred in San Francisco during the month of November, both ending fatally. One was found November 15, the other November 18. This makes 40 cases since the beginning of the year. This shows a marked decrease, since 8 cases occurred in October and 10 in September last.

Smallpox in Utah.—Smallpox is prevalent in and about Murray. At South Cottonwood practically every house is under quarantine. There are fully 50 cases of smallpox in the settlement. The State Board of Health has adopted drastic measures to maintain quarantine.

University of Wisconsin.—The secretary of the College of Physicians and Surgeons has suggested to the regents of the University of Wisconsin that the College be merged with the University as its medical school. Four years ago the directors of the College offered to merge with the University for \$75,000. The College is now estimated to be worth \$85,000. Should the University accept, much of the stock of the College will be surrendered without compensation.

South Bend Hospital, South Bend, Ind.—The family of the late C. Studebaker have given \$50,000, which, in addition to other contributions received, is to pay in full for the \$75,000 hospital building recently completed there.

The Action of Oxygen on the Heart.—Dr. D. J. Lingle, of the University of Chicago, has found by experiment that oxygen has the power of directly sustaining the beats of a strip of heart muscle, removed from a turtle, and of keeping it beating from 24 to 72 hours. Then the muscle stopped, only because dissolution began. While it was known that the heart was extremely sensitive to oxygen, this was formerly thought to have been due to its purifying action in the blood. Lingle claims, however, that his experiments show that stimulation of the heart by oxygen causes rhythmic beating.

SOUTHERN STATES.

Malaria on a Transport.—The U. S. auxiliary cruiser *Panther* reached Hampton Roads, December 7, from Colon, with 320 officers and men of the Marine Corps on board, most of them suffering from malaria. Of this number, 32 men and 2 officers, who are seriously ill, were removed at once to the Marine-Hospital at Portsmouth, Va.

The Health of Baltimore.—During the week ending December 6, 247 cases of measles were reported in the city of Baltimore. There were also reported 25 cases of diphtheria, 9 cases of typhoid fever and of scarlet fever and 4 cases of whooping cough.

Sanitary Conference of American Republics.—Dr. Walter Wyman, Surgeon-General U. S. P. H. and M.-H. S., was elected president at the opening session, December 2. Delegates were present from Chile, Costa Rica, Cuba, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Salvador, Uruguay and the United States. In his address

Dr. Wyman said that the motto of the present gathering should be health, cleanliness, intellect and morals. The conference assembled first to gain information; second, to discuss quarantine; third, to discuss sanitation, and fourth, to make scientific investigations. Dr. A. K. Reynolds, of Chicago, was elected secretary. The next day the main subjects of discussion were yellow fever and uncinariasis. Dr. John Guitcras, of Havana, declared that there had been no yellow fever originating in Cuba for 14 months past, and proposed a resolution stating that the mosquito was the only factor in communicating this disease. Dr. Souchon, of New Orleans, opposed this resolution. Dr. C. W. Stiles, of Washington, discussed uncinariasis, which disease he discovered. This is responsible for the laziness and backward condition of the poor white people of the sand districts of the South. The symptoms of the disease greatly resemble continued malaria. Its presence in succeeding generations has resulted in inferior physical development and lowered mental powers, and is the cause of the proverbial laziness of the Southern "cracker." Men and women of 20 to 23 years of age resemble in appearance children of 14 to 16. The disease, when diagnosed, is easily cured. In the treatment he gives 30 grains of thymol at 8 and 10 a. m., with a purgative at noon. The patient at this time is kept on a diet of milk and soup. This treatment is followed by the passage of the uncinaria Americana, a tiny worm from $\frac{1}{4}$ to $\frac{3}{8}$ of an inch long. On December 4 resolutions were adopted stating that all garbage should be kept separately on the premises until it can be removed, unmixed with anything else, and destroyed. Another resolution passed declared that if all discharges from cases of typhoid fever and Asiatic cholera were instantly disinfected, such diseases would cease to be a menace. A resolution was also adopted ascertaining that it was the sense of the convention that yellow fever was transmissible by mosquitoes. The next meeting will be held at Santiago, Chile, March 15, 1904.

Dr. Lorenz in the South.—Dr. Adolf Lorenz, of Vienna, spent several days in Washington and Baltimore last week. He operated upon one case of congenital dislocation of the hip and 2 cases of club-foot at the Providence Hospital, Washington, December 5. He was received by the President and was given a banquet by the District of Columbia Medical Society, December 4. In Baltimore he operated at the Baltimore Hospital for Crippled and Deformed Children upon one case of congenital dislocation of the hip. On December 8 Dr. Lorenz held a public clinic at Johns Hopkins Hospital, operating on 2 cases of congenital dislocation of the hip.

American Association for the Advancement of Science.—This association, composed of a great number of different societies, including the American Anthropological Association, American Chemical Society, American Microscopical Society, American Morphological Society, American Physiological Society, Association of American Anatomists and the Society of American Bacteriologists, will meet in Washington, D. C., from December 29, 1902, to January 3, 1903.

Adulterated Food Experiments.—These experiments, which were begun last week, are being conducted upon 12 young men in the Department of Agriculture, Washington. For the first 2 weeks, pure food, carefully weighed, will be given and the condition of the men carefully observed every day. Then the different adulterated foods will be tried in succession and, by keeping a regular account for each man, it can quickly be told, by chemical analysis, what has been digested and what has not. Great care is being taken in all the details of the experiments. Among the adulterants to be tested are borax, salicylic acid and several coloring matters.

The Tri-State Medical Society of Western Maryland, West Virginia and Western Pennsylvania met at Cumberland, Md., December 11. The secretary of the association is Dr. F. W. Foehntman, of Cumberland.

Professor Gamgee in Baltimore.—Dr. Arthur Gamgee, a graduate of the University of Edinburgh, the author of a number of works on physiological chemistry, for many years lecturer on physiology at Owens College, Manchester, England, was the guest of Dr. William Osler last week. He has been visiting Yale and Harvard Universities.

Southwest Virginia Medical Society.—This association, to meet 3 times a year, was organized at Abingdon, Va., December 5. The following officers were elected for the ensuing year: President, Dr. W. H. Bramblett, Pulaski; vice-

presidents, Drs. P. B. Green, Wytheville, and W. K. Vance, Bristol; and secretary and treasurer, Dr. E. T. Brady, Abingdon.

MISCELLANY.

Yellow Fever in Ecuador.—The U. S. Consul died of yellow fever at Guayaquil, December 7, after an illness of 3 days. The Public Health Reports state that 14 deaths occurred in Guayaquil between August 10 and November 8, 1902.

Cholera in Manila.—During the month ending December 2, 31 soldiers died in Manila. The cause of death in 10 cases was Asiatic cholera; in 8 cases dysentery.

International Exposition of Hygiene.—This exposition will be held at Buenos Ayres, in April, 1904, at the time of the Second Latin-American Congress. Steamship companies have offered reduced rates for the transportation of exhibits.

Smallpox in Barbados, W. I.—The epidemic of smallpox is rapidly decreasing, the number of cases under treatment November 8 having been 404. During the 2 weeks before that, 86 cases were reported, 60 less than in the preceding fortnight. The disease has also appeared at Trinidad.

Bubonic Plague in Brazil.—The news comes through Barbados that Port Victoria, Brazil, has been declared infected with the plague, there having been 50 cases in the hospital, October 2. From April 15 to October 15, 109 deaths from the plague occurred at Pernambuco. From August 15 to September 28, there were 20 deaths from the disease in Rio de Janeiro.

Yellow Fever in Venezuela.—As already reported, yellow fever appeared first at Valencia, August 25 last. It appeared in Caracas in September, since which time a number of cases and deaths have occurred. It is, however, impossible to obtain official data. Latest reports state that the disease is diminishing.

Bubonic Plague in Egypt.—Since the outbreak of the plague, July 15, up to October 25, there have been 39,277 cases in all Egypt, with 33,443 deaths. The conditions are improving rapidly.

Obituary.—Dr. J. D. Ablen, at Paris, Texas, November 26.—Dr. A. S. Buckley, at Raymond, Texas, November 24.—Dr. George C. McGregor, at Waco, Texas, November 26.—Dr. Walker Curry, at New York City, December 4.—Dr. G. C. Stone, at Burlington, Iowa, December 5, aged 75 years.—Dr. J. H. Booker, at Lottsburg, Va., December 1, aged 47 years.—Dr. Lincas B. Anderson, at Nolls, Va., December 5, aged 78 years.—Dr. N. Y. Lest, at Scranton, Pa., December 6, aged 73 years.—Dr. Timothy Field Allen, at New York City, December 8, aged 65 years.—Dr. John T. Hammond, at Berlin, Md., December 6, aged 72 years.

GREAT BRITAIN, ETC.

A New Cause for Vesical Calculi.—F. C. Madden, professor of surgery in the Egyptian Medical School at Cairo, has found that the majority of vesical calculi in Egypt depend upon the presence of pathological products of bilharzia hematobia throughout the urinary system. The nucleus of the stone is often a piece of papillomatous bilharzia tumor. This becomes detached and incrusts with phosphates, being white in color. All Egyptian calculi, however, are not of bilharzic origin, many cases being due of drinking the water of the Nile, which at some seasons of the year is impregnated with lime salts. Besides, Egyptians practically live upon green vegetables, with the result that uric and oxalic acid frequently develop. This naturally causes the formation of calculi, also.

Mount Vernon Hospital for Consumption, London.—Dr. Robert Koch, of Berlin, has presented to the Committee of Management of the Mount Vernon Hospital for Consumption a portrait of himself, which is to be placed in the library of the out-patient department of the hospital.

The Grand Old Man of Australia.—Sir Charles Nicholson, who was born November 23, 1808, and received his degree of M. D., at Edinburgh in 1833, recently entered his ninety-fifth year. In 1834 he emigrated to Australia, settling in Sydney, N. S. W. He became a member of the Legislative Council of New South Wales in 1844 and was speaker 3 times between 1845 and 1856. He was chancellor of the University of Sydney from 1854 until 1860. He was created

a baronet in 1869. Having made a fortune from wool-growing in New South Wales and Queensland, Dr. Nicholson returned to London in 1865. He is now in excellent health.

CONTINENTAL EUROPE.

In Honor of the Late Professor Widerhofer.—A marble bust of the late Hermann Freiherr von Widerhofer, director of the St. Anna Hospital for Children for almost 40 years, and professor of pediatrics in the University of Vienna for a great many years, has been ordered by the Emperor of Austria at his own expense. The sculptor Richard Jakic has received the order direct from the Emperor. The bust, when completed, will be placed in a new building of the St. Anna Hospital, soon to be erected.

The Nobel Prizes.—The 5 Nobel prizes, consisting of over \$40,000 each, were awarded December 10, at Stockholm. The physics prize was divided between 2 Dutch professors, Lorenz and Zeeman; the chemistry prize was given to Dr. Emil Fischer, of the University of Berlin; the literary prize was given to Professor Mommsen, of Berlin; the peace prize to the Russian professor, De Martens; and the medical prize to Major Ronald Ross, of the Liverpool School of Tropical Medicine. The presentation of the prizes was made by King Oscar of Sweden and of Norway.

Bacteria in Fruit.—Ehrlich has announced that his experiments show 12,000,000 bacteria in the skins of ½ pound of cherries; 11,000,000 in ½ pound of currants, and 8,000,000 in ½ pound of grapes. As a result of extensive experiments upon the infection of fruit with bacteria, Dr. Ehrlich urges that all fruit be cleaned, either by peeling or washing, before it is eaten.

A Musical Heart.—At a recent meeting of the Vienna Medical Society Dr. Reitter presented a young woman with mitral regurgitation, the murmur being of a changeable character. Upon auscultation, sounds were heard beginning with high notes, and gradually becoming lower and softer. This is probably due to a tendinous band.

Celebrating the Birth of a Princess.—The King of Italy has signalized the birth of the Princess Mafalda, born November 19 last, by giving \$20,000 to the foundling hospital and \$20,000 to the free hospitals of Italy.

University Notes.—Berlin: The Spring Ferienkurse will be held in Berlin, March 2 to 28, 1903.—Dr. Tobold celebrated his seventy-fifth birthday November 22.—Breslau: Dr. Ludloff, of Königsberg, has been appointed director of the new orthopedic department of the surgical clinic.—Dr. Richard Stern has been appointed professor of medicine temporarily, during the absence of Dr. Kast, who is ill.—Graz: Dr. Meinhard Pfaundler has just been appointed professor of pediatrics.—Heidelberg: Dr. Oskar Vulpius has been made professor of orthopedic surgery and Dr. G. Benno Schmidt, professor of surgery.—Jena: Dr. Ernst Hertel has been appointed professor of ophthalmology.—Munich: Subscriptions are now being collected for the erection of a memorial to the late Dr. Max von Pettenkofer. Dr. von Zittel is the chairman of the committee in charge.—Paris: Dr. Paul Poirier has just been appointed professor of anatomy.—Tübingen: The announcement, made some weeks ago, that Professor von Jürgensen has retired and removed to Stuttgart, is not correct.

Hydrogen Prepared Easily.—A Paris scientist has recently shown that hydrogen can be easily separated from ordinary illuminating gas by subjecting the gas to intense cold by passing it through liquid air. All the components except the hydrogen liquefy at once and can be drawn off. This can be shown by passing gas through liquid air in a tube and then igniting it. It burns brightly at first, but the flame soon turns a feeble blue, nothing being left in gaseous form but the hydrogen.

Obituary.—Dr. Leonhard Landois, professor of physiology in the University of Greifswald, died November 16, aged 65 years.—Dr. Ernst Mehnert, professor of anatomy in the University of Halle, also died recently.—The death is announced of Dr. Friedrich Dornblüth, at Frankfort-on-the-Main, aged 77 years. His works upon hygiene and pediatrics, especially during his stay at Rostock, are well known.—Dr. E. F. Bidder, formerly professor of gynecology in St. Petersburg, whose father was the well-known Dorpat physiologist, died in Eisenach, November 23, in his sixty-third year.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

November 22, 1902. (No. 2186.)

1. An Address on Lunacy and the Law.
WILLIAM R. GOWERS.
 2. A Clinical Lecture on Cases of Acute Disease of the Nervous System. JAMES BARR.
 3. Hereditary Cerebellar Ataxy in Two Brothers.
J. MITCHELL CLARKE.
 4. A Case of Hereditary or Huntingdon's Chorea.
F. W. JOLLYE.
 5. A Case of Friedreich's Ataxia. R. S. C. EDLESTON.
 6. A Case of Complete Paraplegia Successfully Treated by Forcible Extension of the Spine.
T. OUTTERSON WOOD and JAMES CANTLIE.
 7. Three Cases of Paralysis of Muscles of the Hand and Forearm. WALTER BROADBENT.
 8. A Rare Case of Muscular Dystrophy.
JAMES E. H. SAWYER.
 9. A Case of Motor Aphasia, with Hemianaesthesia, but no Hemiplegia. WILLIAM B. BENNETT.
 10. The Croonian Lectures on the Natural History and Pathology of Pneumonia. J. W. WASHBOURN.
- 2.—Barr reports the case of a woman, aged 50 years, who suffered from symptoms pointing to increased fluid pressure within the cerebral ventricles. He thinks the term *serous apoplexy* is very appropriate as a designation for cases of sudden effusion into the ventricles. At autopsy nothing was found in this case except a wet brain, although the patient presented marked cerebral symptoms during life. He also reported a case in which paraplegia, incontinence of urine, involuntary evacuation of feces, an hyperesthetic band in the lower dorsal region and a burn on the buttock, pointed to transverse myelitis. Other symptoms, however, caused the author to consider the case more closely allied to Landry's paralysis.
[J. M. S.]
- 3.—Clarke reports 2 cases of hereditary cerebellar ataxia in brothers. [J. M. S.]
- 4.—Jollye reports a case of hereditary chorea. [J. M. S.]
- 5.—Edleston reports a case of Friedreich's ataxia.
[J. M. S.]
- 6.—Wood and Cantlie report a case of complete paraplegia which was successfully treated by forcible extension of the spine. [J. M. S.]
- 7.—Broadbent reports 3 cases of paralysis of muscles of the hand and forearm. [J. M. S.]
- 8.—Sawyer reports a case of a rare form of muscular dystrophy. Part of the deltoid muscle was hypertrophied and part of it was atrophied. The triceps and biceps were greatly atrophied. He describes the various areas of hypertrophy and atrophy in the muscles, the former of which made the case peculiar. This hypertrophy began at the age of 43. [J. M. S.]
- 9.—Bennett reports a case of motor aphasia with hemianesthesia but no hemiplegia. [J. M. S.]

LANCET.

November 22, 1902.

1. An Address on Lunacy and the Law.
WILLIAM R. GOWERS.
2. An Address on Some Further Points Relating to Varicose Veins of the Lower Limbs.
WILLIAM H. BENNETT.
3. The Croonian Lectures on the Natural History and Pathology of Pneumonia.
(the late) J. W. WASHBOURN.
4. Pure Urca in the Treatment of Chronic Pulmonary Tuberculosis; with a Note on the Action of Urea.
S. VERE PEARSON.
5. A Case of Malignant Disease of the Pylorus Occurring in a Young Man, Aged 19 Years.
G. PAUL ANNING.

6. Transplantation by Exchange (a Sequel).

C. R. B. KEETLEY.

7. A Case of Stricture of the Urethra. WILLIAM SANG.

2.—Bennett delivered an address before the Windsor and District Medical Society on some further points relating to varicose veins of the lower limbs. He discusses the causes of varicose veins under 3 heads: (1) Congenital, (2) acquired and (3) intermediate. He thinks that the vast majority of the cases are of congenital origin, and he holds that it is doubtful whether a really normal vein can be made varicose by any ordinary strain that has been thrown upon it after adult life has been fully reached. Under the heading intermediate varix he includes a condition in which a congenital defect in the veins has been increased by injury or strain, such as may give rise to the acquired varix properly so-called. The areas of disturbance of varicose veins are (1) along the line of the internal saphenous vein, (2) along the line of the external saphenous vein and (3) along the outer side or back of the thigh. These formations may exist in combination with one another. He then discusses the symptoms (1) pain; (2) fulness without edema, with a feeling of weight and tension in the limb and (3) edema. He states that in congenital cases the appearance of the varix is invariably prior to the occurrence of symptoms arising from it; and in the acquired kind, on the other hand, feelings of discomfort, such as pain, weight and leg weariness, generally precede the manifestation of the altered veins and call attention to them. He then discusses the treatment from (1) the nonoperative; (a) hygienic, (b) manual and (c) mechanical; and (2) from the operative or radical standpoints. [F. J. K.]

4.—Pearson discusses pure urea in the treatment of chronic pulmonary tuberculosis. The author gives a brief account of the histories of 7 cases in which a trial of the urea treatment was made. In none of the cases did the physical signs show any appreciable improvement, one patient died, and in several others there was an extension of the disease as manifested by the physical signs. The urea seemed to exert no special influence upon the pulse or the temperature, and in no case was there any marked diminution in the quantity or any appreciable improvement in the quality of the expectoration. He also studied the action of the urea as a diuretic which he summarizes as follows: (1) Urea given by the mouth to patients with chronic pulmonary tuberculosis increases the output of the urea; but the total increase in this output does not, as a rule, equal the total quantity administered. (2) Urea acts only to a slight extent as a diuretic, this action is variable and, on the whole, untrustworthy. (3) In both the output of the urea and that of the urine the effect produced by the administration of urea is more marked at first. After a time the body seems to accustom itself to the intake of urea and tends to return to the normal output. (4) Urea does not act as a cardiac stimulant. [F. J. K.]

5.—Anning reports a case of carcinoma of the pylorus occurring in a young man, 19 years of age. Operation was performed by Littlewood. The growth was found to involve the pylorus and to have extended to the glands in the neighborhood to such an extent that a radical operation was thought inadvisable. A posterior gastro-enterostomy was performed which resulted in the absolute relief of all stomach symptoms until the patient's death, 8 months later. At this time a general carcinomatous condition of the peritoneum and viscera was present. The case is interesting because of the age of the patient. The relief obtained from the operation is also worthy of note. [J. H. G.]

6.—Keetley makes a second report of a patient on whom he performed what he calls "transplantation by exchange." The operation was one for a large hairy mole on the cheek of an infant, 2 or 3 weeks old. The operation consisted in strapping the arm to the side of the face, dissecting the mole from the cheek, excepting at one point, in taking a flap from the arm corresponding to the area exposed on the cheek, and in fixing the mole to the arm and the flap to the cheek. Later the bases of the mole and of the flap were divided, and a very excellent result was obtained, as is shown in a photograph taken of the patient when she was 15 years of age. [J. H. G.]

7.—Sang reports a case of stricture of the urethra in which he experienced great difficulty in dilatation because of the hard and cartilaginous character of the stricture.

After reaching a certain degree of dilatation with metal instruments he found it impossible to carry the dilatation further. It was discovered, however, that soft olivary bougies of a greater caliber could be passed, and by following these with small sizes of the metal instruments the dilatation was carried on successfully. [J. H. G.]

MEDICAL RECORD.

December 6, 1902.

1. Operations upon the Uterine Appendages for Sterility. W. M. POLK.
2. Spinal Cord Tumors—Tumors of the Central Nervous System: Remarks on Noteworthy Cases. JOSEPH COLLINS.
3. Are Vessels Infected with Yellow Fever? A Reply to Dr. Carter. ALVAH H. DOTY.
4. A New Stain for Diphtheria Bacilli. WILLIAM GRAY SCHAUFFLER.

1.—Polk discusses the conditions leading to sterility in women. In such cases the appendages have frequently lost their mobility and their position. The ovaries frequently have a thickened covering and not infrequently cysts. The tubes, beside being distorted, constricted and displaced, are thickened or perhaps thinner from distention, the distending element being mucus, blood or a clear serum. The pathological conditions may be of greater or less severity. Polk reports his experiences in operating upon the uterine appendages for sterility. In many instances the mere freeing of the organ from adhesions is all that may be required; if, however, pyosalpinx, hydrosalpinx or hematosalpinx be present, then it seems proper to remove all the dilated portions, leaving the cut end of the tube free. Uterine displacements must be corrected, and in dealing with the ovaries as much ovarian tissue must be left as the diseased conditions will warrant. [T. L. C.]

2.—Collins discusses spinal cord tumors. The 2 most difficult things in the diagnosis are to discover whether the tumor is intra- or extradural, and at what segment of the spinal cord it is situated. The consensus of opinion seems to be that the location of any tumor in the cord is from 2 to 4 inches above the uppermost limits of the anesthesia, and more often the latter figure than the former is correct. In attempting to estimate the value of pain as a localizing factor we are often confused by the widespread area over which the pain exists. In some instances, however, the distribution of the pain is very suggestive of the location of the tumor. The most common tumors of the spinal cord are those of the dura; those growing within the dura are nearly twice as common as those growing without. The favorite location for spinal cord tumor is in the dorsal region, the lower and upper end. In the 70 cases analysed in the paper, 35 were of the dorsal region, 15 of the cervical, 13 of the lumbar and sacral, and 6 of widespread distribution. Collins adds 3 new cases to the literature and presents a critical summary of the reported cases. [T. L. C.]

4.—Schauffler has found that Grüber's pyronin is much superior to eosin as a stain for diphtheria bacilli. The solution he advises is made up as follows:

Filtered solution of Löffler's methylene blue	10.0 cc.
Filtered solution pyronin (Grüber)	1.5 cc.
Pyronin,	0.5 gm.
Aquae dest.	10.0 cc.
Three percent. HCL-alcohol	0.5 cc.
Alcohol absol.	97.0 cc.
HCL (25 percent.)	3.0 cc.

To prepare specimen: (1) Make coverglass smear and fix by passing through a flame 3 or 4 times. (2) Drop on to a fixed smear enough solution to cover it and let it stand one minute. (3) Wash thoroughly in running water. Mount in Canada balsam and examine with 1/12 oil immersion lens. Magnify 1,000 times. The above procedure will show the bodies of the bacilli stained blue, while the poles are a bright ruby-red. [T. L. C.]

MEDICAL NEWS.

December 6, 1902. (Vol. 81, No. 23.)

1. Volvulus as a Cause of Intestinal Obstruction: With a Report of Three Cases Operated Upon Successfully. JOHN F. ERDMANN.
2. Notes Upon Several Unusual Larval Insects Occurring as Parasites in Man. ALLEN J. SMITH.
3. Cellulitis of the Orbit, Eyelids, Forehead and Cheek, following an Infected Sore Upon the Finger; Treatment by Free Incisions and Subcutaneous Injections of Sublimate. CHARLES STEDMAN BULL.
4. A Comparative Study of the Value of Methylene Blue and Quinine in the Treatment of Malarial Fever. JOHN T. MOORE and W. L. ALLISON.
5. Description of an Osteoplastic Metastatic Carcinoma of the Sternum following a Carcinoma of the Uterus. A. C. YODER.
6. Laboratory Methods and the Country Practitioner. EDWIN A. MURBACH and JOHN U. FAUSTER.

1.—Erdmann reports a number of cases of this condition, and he gives Gibson's statistics of the study of 1,000 operations for acute intestinal obstruction and gangrenous hernia: (1) Volvulus occurred 121 times; (2) frequency as to sex was found to be almost 2 to one for males as compared to females (3) the average age was about 45 years; (4) four patients were operated upon a second time and one was operated upon 3 times; (5) the mortality when the small intestine was involved was 70% as compared to 46% when the large intestine was involved; (6) only one case in the entire list recorded was successful after resection of the small intestine was performed. [T. M. T.]

3.—Bull reports a case of the condition and also quotes one reported by Nettleship who believes that both the optic nerves are affected at the chiasm by inflammation of the underlying periosteum or bone, and that a septic embolism is the cause. [T. M. T.]

4.—Moore and Allison conclude as follows: (1) Methylene blue will destroy malarial parasites in many cases, but it is less certain than quinine; (2) methylene blue is probably most valuable in chronic cases, but has no advantage over quinine; (3) the effects of methylene blue are ordinarily more unpleasant than quinine; (4) it is useful in patients that cannot take quinine on account of some idiosyncrasy to it. Its use in pregnancy is undetermined; (5) it is probably valuable in treating hematuric and hemoglobinuric fevers on account of its diuretic action; this has yet to be determined; (6) the authors believe that quinine is quicker and much more certain, and they would rely upon it rather than upon methylene blue. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

December 6, 1902.

1. The Treatment of Vascular Neoplasms by the Injection of Water at a High Temperature. JOHN A. WYETH.
2. The Functional Weight-Bearing Method of Treating Congenital Dislocation of the Hip. DEXTER D. ASHLEY.
3. The Diagnosis and Operative Treatment of Femoral Hernia, including a Description of the Fabricius Operation. RUSSELL S. FOWLER.
4. The Works of Edward Jenner and Their Value in the Modern Study of Smallpox. GEORGE DOCK.
5. A Case of Cancer of the Larynx Cured by the X-Rays. W. SCHEPPEGRELL.

1.—After an experience of 2 years, Wyeth reports the results of treating arterial, capillary and venous angiomas by the injection of water at a temperature of from 190° to 212° F. or higher. The quantity of water injected into the substance of the tumor and its temperature vary with the size and character of the neoplasm. As a rule, from 30 to 60 m. are injected at a time, and this is continued until the entire tumor has solidified. The water should be hot enough to coagulate the blood and albuminoids of the tissues immediately, but should not be

forced in so extremely hot and under such pressure as to produce necrosis of the skin. [M. O.]

2.—Ashley describes in detail the functional weight-bearing method of treating congenital dislocation of the hip, as originated and practised by Dr. Adolf Lorenz, professor of orthopedic surgery in the University of Vienna. The different steps of the operation and the very important after-treatment are given in full. [M. O.]

3.—Fowler gives the symptoms of reducible and irreducible femoral hernia, discussing the differential diagnosis between femoral hernia, psoas abscess, saphenous varix, femoral adenitis, lipoma, malignant tumors and cysts. The technique of the radical operation, known as the Fabricius operation, as performed by Dr. Fowler, is given. [M. O.]

5.—Scheppegrell reports, with full detail, the history of a case of laryngeal cancer cured by applications of the X-rays. The patient came under treatment in June, seemed cured by August and was found in excellent condition in October. The aphonia which followed immediately after the treatment has been partially overcome by compensation by the remaining cord. This condition has gradually improved by constant practice. [M. O.]

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 4, 1902. (Vol. CXLVII, No. 23.)

1. The Role of the Physician. CHARLES DEAN YOUNG.
2. Some Observations Upon the Value of the Phloridzin Test for Estimating the Functional Capacity of the Kidneys; Renal Insufficiency. FRANCIS S. WATSON and W. T. BAILEY.
3. Cryoscopy. WILLIAM T. BAILEY.
4. A Note on Pleurisy in Typhoid Fever. GEORGE G. SEARS.
5. Infant Feeding. ERNEST B. EMERSON.

2.—Watson and Bailey give 4 methods of urine analysis for estimating the sufficiency or the reverse of renal function: (1) Cryoscopy; (2) the so-called "toxic" test; (3) the methylene blue test; (4) the phloridzin test. The author's paper is upon the latter test which consists in the administration of a subcutaneous injection of a sterilized preparation of phloridzin to which is added an equal quantity of Na_2CO_3 , the latter being used to hold the phloridzin in solution. The dose is 5 mg. for persons of moderate size and weight and twice this quantity for persons of larger size and unusual weight. The bladder should be emptied before the injection is given. Half an hour after the drug is given sugar should appear in the urine if there is normal sufficiency of renal function. Serious disease of the kidneys is indicated if none is present. If its appearance is delayed or only a small percentage is found, it is taken as an indication of renal insufficiency. The average quantity of sugar eliminated in the first half hour after the administration of the drug and when the kidneys are normal is about 0.45%; and the first half hour elimination is greater than the second half hour by about 0.06%. When renal disease exists, the first half hour quantity of sugar eliminated is about one half as much as that when the kidneys are normal, and there is but very little more in the first half than in the second. The effect of ether anesthesia is to stimulate the kidneys to greater functional activity, but the renal function is not, if judged by the phloridzin test, in any way impaired by the anesthesia. [T. M. T.]

3.—Bailey defines cryoscopy as a process whereby the freezing-point of certain liquids may be compared with that of distilled water. The normal or average freezing-point of the blood of healthy persons without kidney lesions is -0.56°C. , varying from 0.55° to 0.57° below zero. That of the urine is more variable, standing between 1.2° and 2.3° below zero. A freezing-point, therefore, of the blood of 0.58° or lower, or of 1° or higher of the urine, as compared with that of distilled water, indicates a degree of renal insufficiency or impairment, making operative interference upon the kidney dangerous and unjustifiable. Observations and experiments have shown that cryoscopy, the phloridzin test and the determination of the quantity

of nitrogenous products in the urine, together offer a delicate and precise knowledge of the renal function.

[T. M. T.]

4.—Sears states that pleurisy in typhoid fever is rare during the first week. It is most common after that date while the temperature is still high, but it may be delayed until convalescence is fully established, or even occurs as a complication of a relapse. More frequently its onset is insidious, and its presence is only discovered on physical examination. The Widal reaction with serum drawn from the pleural cavity has been tried in a number of cases with varying results. In some it was negative, while in others a more intense reaction was obtained than when the blood was used. The character of the effusion has an important bearing upon the prognosis. None, however, which came on before the twelfth day, was either hemorrhagic or purulent. Serous effusion seemed to add but little to the gravity of the original disease. None of the initial cases, in the author's experience, was fatal. [T. M. T.]

5.—Emerson gives a few important signs and symptoms which are valuable guides in preparing a mixture for an individual case: (1) Insufficient sugar is usually indicated by a failure to gain properly in weight, provided the other elements are in the proper proportion; (2) an excess of sugar is indicated by colic or thin, green, watery stools; (3) one of the most important indications of low fat is constipation and a harder and dryer condition of the stools than normal; (4) vomiting or regurgitation of food an hour or 2 after nursing is indicative of an excess of fat; (5) the most valuable sign of an excess in the proteids is the passage of curds in the stools. There may be diarrhea or constipation, frequently a green movement. The occasional occurrence of some of these symptoms, if of temporary duration, is not necessarily an indication to change the food; but their persistence demands investigation, for it is the neglect of some of these danger signals which may lead to failure. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. December 6, 1902.

1. The Treatment of Tubercular Glands of the Neck.
LEONARD FREEMAN.
2. Sanatorium Treatment of Tuberculosis. Analysis of Three Hundred Cases Treated at the United States Marine-Hospital Service Sanatorium.
P. M. CARRINGTON.
3. The Sanatorium Treatment of Consumption.
S. G. BONNEY.
4. Some Practical Points on the Treatment of Pulmonary Tuberculosis. J. EDWARD STUBBERT.
5. The Microscope in the Diagnosis of Scarlet Fever.
W. K. JAQUEST.
6. The Treatment of Fractures of the Lower End of the Radius. CARL BECK.
7. Sarcomatosis Cutis. DAVID LIEBERTHAL.

1.—Freeman discusses the treatment of tubercular glands of the neck. He reviews the general treatment from medicinal and hygienic viewpoints, and then discusses the local treatment by nonoperative and operative measures. He summarizes as follows: (1) The gravity of tuberculosis of the cervical lymphatics, both as regards local deformity and remote secondary manifestations, is generally underestimated. (2) General treatment, especially hygiene, is of the utmost importance, both in the cure of incipient trouble and in the prevention of relapse following operations on more advanced cases, most recurrences being due to neglect of such measures. (3) Residence at the seashore has long been recognized as of great benefit; but there is reason to believe that a high and dry climate, such as that of Colorado, with its rarefied, stimulating atmosphere and abundant sunshine, possesses superior advantages. (4) A point of extreme importance in local treatment is to abolish sources of infection, in the teeth,

tonsils, nose, ear, scalp, etc., and neglect of this is apt to result in failure. (5) Nonoperative treatment is often of doubtful utility, except in the beginning of the disease. (6) Pulmonary involvement does not contra-indicate operation, at least in Colorado, except in advanced stages. (7) Curettement is applicable to sinuses, tubercular ulcers of the skin, and when complete removal would be attended with too much risk. In all other instances a thorough operation should be done. (8) The size and shape of the incision should be adapted to the particular case. It should be free enough to permit of thoroughness and safety. (9) The chance of permanent cure following operation is probably better in Colorado than in lower and less favorable altitudes. [F. J. K.]

2.—See Philadelphia Medical Journal, June 21, 1902, page 1116.

3.—Bonney writes on the sanatorium treatment of tuberculosis. He points out that the fundamental principle of treatment of consumptives includes the intelligent aid rendered to those in the early stages, and the interests of the community pertain to the removal from its very midst of destitute invalids constituting an oppressive burden to their families, if not to society, and who are a constant menace to the well. A well-directed and far-reaching system of education is necessary for the preservation of the community. He then discusses the special principles concerning sanatorium treatment. He presents the following propositions, stating: (1) That consumption is not only a communicable but also a curable and preventable disease (2) that consumption may become arrested occasionally in spite of unfavorable climates, unhygienic surroundings and undue exposure; (3) there is no single climate or special manner of treatment in any way applicable to all cases of consumption; (4) the most particular and painstaking attention to the minutest detail is absolutely essential to the successful treatment of the disease; (5) the degree of successful supervision either within or without an institution depends almost entirely on the personal influence of the physician himself. It is almost purely a question of personal equation and demands a certain aptitude for the peculiar requirements of the position. He finally adds that climate, although by no means the only desideratum, is the principal one in the treatment of consumption. He suggests a classification of patients, dividing them into: (1) Those demanding sanatorium treatment; (2) those for whom institutional treatment *per se* is still *sub judice*; (3) patients for whom residence in local closed sanatoria is not unqualifiedly recommended; (4) the sanatorium management in appropriate climates as opposed to the so-called home treatment in health resorts. At some length he discusses these classes. He makes a plea for the open air treatment of consumption, but points out that great usefulness may be had in closed sanatoria even in appropriate climates. [F. J. K.]

4.—Stubbert points out some practical points in the treatment of pulmonary tuberculosis. He discusses the evolution of treatment that has taken place in this disease and then outlines the principles relating to the hygiene, the diet, the need of individual treatment, and then considers the treatment of symptoms relating to the upper air passages, the cough and the measures most useful in counteracting the blood changes, and finally he discusses the value of the light treatment, surgical treatment and serum therapy. [F. J. K.]

5.—See Philadelphia Medical Journal, June 21, 1902, page 1114.

6.—See Philadelphia Medical Journal, June 21, 1902, page 1103.

7.—Lieberthal contributes an article on sarcomatosis cutis. He reports 2 cases and compares their anatomical findings. In the first the growth consisted generally of spindle cells, and in the second of round cells. He finds that there is no great distinction between the 2 forms and

states that they seem to represent the same process, and that in the majority of such cases secondary changes do not develop and are more amenable to treatment and cure. [F. J. K.]

AMERICAN MEDICINE.

December 6, 1902.

1. Pus in the Pelvis, Depending Upon, and Complicating, Appendiceal Disease in the Female: Methods of Treatment. JOHN B. DEAVER.
2. Vaginal Section in Suppurative Disease of the Pelvic Structures: Indications and Technique. E. E. MONTGOMERY.
3. Pus in the Pelvis as a Result of Bone or Joint Necrosis: Diagnosis and Treatment. H. AUGUSTUS WILSON.
4. Drainage in Operations for Suppurative Disease of the Pelvic Organs. J. M. BALDY.
5. Clinical Notes on Some Recent Abdominal Cases. REUBEN PETERSON.
6. The Gynecologic and Obstetric Aspect of Repeated Abortion. S. MARX.
7. The Modern Treatment of Eclampsia. HERBERT MARION STOWE.
8. Reflections on State Medical Board Examinations and Interstate Reciprocity. ALOYSIUS O. J. KELLY.
9. Mineral Waters: Their Use and Abuse. C. W. CHANCELLOR.

1.—Deaver discusses methods of treating pus in the pelvis, depending upon, and complicating, diseases of the appendix in the female. Appendicitis may cause a pelvic abscess in one of three ways: (1) By the extension of a purulent collection from the right iliac fossa to the pelvis; (2) by an appendiceal abscess in the pelvis with the appendix hanging over the ileocecal line or entirely in the true pelvis; (3) and, lastly, by infection of the tube and ovary with involvement of both the appendix and adnexa in a purulent exudate. The percentage of cases in which acute appendicitis exists in the female has been variously estimated. In Deaver's cases, during 1901, of 238 adult patients with acute appendicitis, 34.8 per cent. were women. Deaver considers the various conditions in the female which may simulate appendicitis, pointing out particularly the interesting phase of this disease in which the right tube or ovary may become infected from a diseased appendix in the pelvis. The number of cases reported of late years would justify the assumption that appendicitis is a frequent cause of salpingitis. The treatment of the appendiceal abscess will depend upon the location of the pus and the condition of the patient. In cases in which abscess is high enough in the pelvis it may be reached by an incision in the loin and reflecting the peritoneum from the iliac fossa, opening and evacuating the abscess below its upper limits. The cavity is then washed out and packed with gauze. An extraperitoneal operation of this nature is advocated only because of the size and situation of the abscess and the infectious nature of the appendiceal pus, which may render a complete operation more hazardous. The number of times this method can be employed is necessarily limited, and several times he has had to abandon the procedure, failing to get below the upper limits of the pus, and open the parietal peritoneum to the median line side of the wall after all. This is especially the case when the appendix, while pointing into the pelvis, is well to the median line, and the great omentum, endeavoring to aid in the formation of a protecting barrier, becomes infiltrated and simulates a mass. [T. L. C.]

2.—Montgomery states that the advantages of vaginal section in suppurative diseases of the pelvic structures are as follows: (1) It is regarded as a less serious operation by the patient who will consent to it at an earlier date when the chances for her recovery without a sacrificial operation are much more probable; (2) the patient experiences less pain and discomfort, her convalescence is more

rapid, and she bears no marks of the procedure upon her body. [T. L. C.]

3.—Wilson discusses pus in the pelvis as a result of bone or joint necrosis. He points out the importance of removing the idea of the hopelessness of tuberculous bone disease. This is largely responsible in interfering with complete recovery by postponing the application of proper and rational treatment until the entire constitution has succumbed to the strain. It is further important that tuberculous bone and joint disease should be considered such only when the condition is in the incipency, and that any condition arising after that period should be classed as result and not necessarily a part of the disease. The occurrence of these results should be viewed as avoidable by early diagnosis and appropriate immobilization and avoidance of passive or active motions at all times. Proper hygiene and dietetic measures must be rigorously instituted. It is by such procedures that abscess formation will be avoided. [T. L. C.]

4.—Baldy believes that with proper skill and perfect technique the drainage tube may be dispensed with in a large percentage of cases of even suppurative disease of the pelvic organs. [T. L. C.]

7.—Stowe formulates the principles of treatment for puerperal eclampsia at term as follows: (1) Control the convulsions. (2) Deep narcosis during all pelvic manipulations. (3) Rigid antisepsis in all pelvic manipulations. (4) Administration of remedies that will control the toxic effect. (5) Immediate stimulation of the various excretory organs. (6) Empty the uterus by the most natural method possible without undue regard for the life of the child, especially if the condition of the child is poor. (7) Dilution of the toxins floating in the body fluids. (8) Stimulation of the vital centers when necessary. [T. L. C.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

October 7, 1902. (No. 40.)

1. The Diagnosis of Neurasthenia. KRAEPELIN.
2. Operative Treatment of Diseases of the Lung. G. TREUPEL.
3. The Relation Between Disease of the Bladder and Uterine Myomata, with Consideration of Their Prognosis. W. HAHN.
4. Postoperative Retention of Urine and Its Results. F. TAUSSIG.
5. Nervous Irradiations in the Region of the Urinary Organs. W. HIRT.
6. A Case of Habitual Gonorrheal Urticaria. ORLIPSKI.
7. A Case of Bilateral Paraneuritic Abscess. PILTZ.
8. Treatment and Pathogenesis of Stenocardia and Related Conditions. R. BREUER.
9. Franz von Tappeiner. R. HAUSMANN.
10. History of Therapeutics in the 17th. Century in Russia. M. LACHTIN.

1.—Kräpelin discusses the differential diagnosis of neurasthenia, and speaks particularly of the frequency with which this term is applied to the most varied forms of nervous disease. He also mentions certain diseases the symptoms of which in certain stages resemble closely those ordinarily considered indicative of neurasthenia. Among these is progressive paralysis, in which the first symptom that calls attention to the true nature of the case may be a maniacal outbreak. Then those forms of dementia which are at present grouped under the term dementia precox, particularly cases developing under the picture of hebephrenia. In these cases the diagnosis is of great importance in order to prevent useless and perhaps expensive efforts to obtain a cure. Finally there is a large group of diseases under the type of depressive mania or circular insanities. In these cases the amelioration of the symptoms that occur sooner or later is very likely to be ascribed to the treatment by the physician who happens to have the patient in charge at the time. Neurasthenia itself is generally supposed to be a chronic exhaustion of the nervous system; at any rate, this means a progressive diminution of the capacity for accomplishment on the part of the patient. As a result, more force is applied, and the signs of fatigue become more and more pronounced. An excessive exertion may occur as a part of the regular

occupation, or the condition may sometimes be produced as the result of some injury or disease. Kräpelin thinks that probably it is more correct to say that neurasthenia is a result of the persistent action of certain bodily injuries; that is to say, there is an insufficient replacement of used or destroyed tissues, and an imperfect excretion of poisonous products of destructive metabolism. Among the peculiar forms of neurasthenia are those due to some form of profound emotional disturbance. A separate subdivision of these are the forms produced by fear, which occur somewhat more suddenly and are somewhat more unfavorable in their prognosis. Another group is sometimes spoken of as the congenital neurasthenias, and another in which the dominating symptoms are anxiety or excessive conscientiousness. These are closely related to the so-called phobias. Kräpelin believes that the idea of neurasthenia must be more sharply defined, and that at present it is entirely too loose. A careful separation of the different types will probably have great influence upon the treatment of these conditions. [J. S.]

2.—Treupel reports the case of a boy, 9 years of age, who at the age of 4 years had swallowed a head of wheat. Since that time he had had cough and purulent expectoration, but his nutrition remained good. Physical examination showed evidence of disease of the left lower lobe with some contraction and probable bronchiectasis. An operation was therefore performed, the seventh, eighth, and ninth ribs resected, and finally a cavity was reached from which air and pus were expelled by coughing. A fistula remained, and the patient ceased to expectorate. He improved remarkably in general condition, in the course of 7 weeks the fistula closed, and the patient appeared entirely cured. [J. S.]

3.—Hahn discusses the various conditions that are likely to produce cystitis in women. He calls attention to the habit of long retention, and mentions, as an illustration of the power of distention of the bladder, the case of a woman with an incarcerated gravid uterus, from whose bladder 4 liters had been removed, a quantity that had given rise to a diagnosis of ascites. Of great importance is the existence of myomata of the uterus, which may interfere with the expulsion of urine. He believes that when myomata are present, operation should be performed even if other symptoms of the condition are absent. [J. S.]

4.—Taussig calls attention to the frequency with which retention of urine occurs after operation upon the female organs, and the dangers to which the patient is exposed as a result of repeated catheterization. He gives some figures showing that in 282 cases 60 patients had retention from 3 to 6 days, and 43 of these for more than 6 days. The commonest cause was an abdominal radical operation. Of these cases 64% had retention for more than 6 days. The immediate (?) cause is rather difficult to find. It does not appear to be due to disturbance of circulation, but probably is the result of a disturbance of innervation. The result of retention is usually cystitis which may or may not be due to catheterization. The treatment is various. Sometimes intravesical faradization, sometimes waiting until the urine is spontaneously evacuated, and sometimes dilatation of the urethra is advantageous. If cystitis occurs, it may be treated by lavage of the bladder. The most effective drug is urotropin. This, however, is of little use in cases of severe cystitis, and this type usually does best after lavage with various silver solutions. [J. S.]

5.—Hirt understands by irradiation pains felt in some position in undemonstrable anatomical connection with the affected organs. He mentions the case of an old man who had hypertrophy of the prostate, and in whom irritation of the skin always produced swelling of the prostate and difficulty in passage of the catheter. Sometimes there is distinct contraction of the muscles as a result of irritation. He mentions another case in which there had been cystitis for 16 years, as a result of stricture. In this instance, after repeated dilatation, the patient developed pyelitis and subsequently distinct symptoms of suppuration in the kidney, particularly rigidity of the right wall of the abdomen. In still another patient, with the same history, the right wall of the abdomen was firmly contracted, and again disease of the right kidney was suspected. In this patient also primary pyonephrosis was discovered. Sometimes pain in one kidney is felt upon the other side, or may be felt in the lower portion of the urinary tract. In some patients tuberculosis of the kidney gives rise to curious symptoms. In one patient there was

continuous dribbling of urine until the organ was removed; in another there was hematuria, also relieved by operation. Injury to the kidney sometimes gives rise to pain in other parts of the urinary tract. In one patient the pain was felt in the testicle as a result of injury to the back, and later this patient developed tuberculosis of the kidney. [J. S.]

6.—Orlowski mentions the case of a man who, at intervals of 15 years, had attacks of urticaria, both instances apparently associated with gonorrhea. He subsequently had a fresh attack apparently due to a fresh infection. [J. S.]

7.—Piltz reports a case of bilateral paranephritis in a man of 41 years, who, after a slight febrile attack, developed pain in both kidneys, then effusions above and below the diaphragm on both sides. An exploratory puncture showed a serous exudate on the left side. Later, in the region of the left kidney, a fluctuating swelling appeared which contained pus and was evacuated. As the fever was not relieved by the operation, the patient was still kept under observation, and finally a fluctuating swelling appeared in the region of the right kidney which also contained pus. The cause could not be determined. [J. S.]

8.—Breuer, in continuation of his paper, reports some cases of coronary angina due to various causes. The first patient, a man of 43, who had had luetic infection, had severe pains whenever he walked as long as 3 or 4 minutes continuously. These were felt in the sternum toward the back. The physical examination showed nothing abnormal. When he attempted exertion the motion became slow, he became pale and was unable to move. After treatment with diuretin he improved. The second patient, a man of 57, from time to time had had attacks of cramp in the breast and a feeling of utter annihilation. The pains radiated into the right arm. These attacks occurred 3 or 4 times every night, and he frequently had vertigo. Physical examination showed symptoms of aortic insufficiency, arrhythmia of the pulse, no sclerosis of the arteries. He improved upon diuretin and nitroglycerine. He subsequently died during an attack. The third patient, a man of 22 years, had had endocarditis at the age of 9 years. He developed symptoms of aortic and mitral insufficiency with marked dilatation and hypertrophy of the right ventricle. The attacks consisted in severe pain just back of the sternum which radiated to the left arm and shoulder. He was treated successfully at first with nitroglycerine, and then, this losing its effect, with diuretin, and apparently was cured. The fourth case was that of a man of 24, an enthusiastic cigarette smoker, who from time to time had attacks in which he felt as if his heart suddenly stopped beating. There was chronic arrhythmia, active knee jerks, but otherwise the patient was normal. The fifth patient, a man of 48 years, luetic, had an aneurysm of the arch of the aorta. He had attacks of pain in the depth of the breast extending to the back and occurring several times every day and night. He improved considerably under treatment. The sixth patient also had an aneurysm of the arch of the aorta and attacks of pain back of the sternum and in the left arm associated with extreme anxiety. The seventh patient, a man of 58 years, luetic, had attacks of pain commencing behind the left shoulder-blade, radiating forward and into the arm. There were no signs of anxiety. There was a distinct aneurysm of the lower portion of the arch of the aorta. The eighth patient, a man of 40 years, probably syphilitic, had severe pain in the region of the xiphoid cartilage. He felt as if the stomach was being compressed under an iron fist. There was nothing abnormal in the result of the physical examination. He improved on treatment. The ninth patient, a man of 56, also luetic, had intense pain in the abdomen, occurring almost every day. There was increased tension of the pulse, and accentuation of the second aortic sound, but the patient improved under treatment. Breuer believes that in the 2 latter patients there is no reason to suppose that the pain was due to the cardiac condition, because diuretin is not supposed to be effective in abdominal conditions. (The paper is still unfinished.) [J. S.]

9.—Franz von Tappeiner died on the 20th. of August, 1902, at the age of 86 years. He was born on the 7th. of January, 1810. He was able, on account of his brilliant intellectual gifts, to continue at the Gymnasium, and subsequently at the University in Innsbruck and the High School at Prague for many years. From the latter he went to Padua but returned again. He subsequently renewed his acquaintance with all the subjects he had

studied in the Gymnasium. His association with Dieterich awakened in him a love of botany. Finally, in 1843, he received his degree of Doctor of Medicine. He then settled in his native town, Laas, where he soon acquired an excellent local reputation, especially as a surgeon. He was soon called to Innsbruck to take charge of an important case. On account of increased practice he subsequently was obliged to move to Meran where his practice became enormous. It was not until he was 60 years of age that he devoted himself particularly to scientific medicine. He called attention to inspiration as the commonest route of infection in tuberculosis; to the contagiousness of this disease; and interested himself extensively in the improvement of his native town. He also studied the ethnology of the Tyrol, and collected over 1,000 skulls of the inhabitants. His life was always one of active exertion. [J. S.]

10.—The early remedies of Russia appear to have been derived largely from wild animals, such as the bear, wolf, fox, hare and others. Various parts of these animals were employed, and various minute directions were given for their preparation. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

October 27, 1902. (39 Jahrgang, No. 43.)

1. Further Investigations upon Hemolysis in Heterogenic Serum. P. BAUMGARTEN.
2. Photography of the Eye Grounds.
WALTHER THORNER.
3. Flittering Scotoma. F. JOLLY.
4. Investigation upon Streptococcic and Antistreptococcic Serums. HANS ARONSON.
5. Virchow's Accident and Illness. W. KOERTE.

1.—Baumgarten reviews the work done upon hemolysis in heterogenic serum, and identifies agglutinins with the specific antibodies called amboceptors by Ehrlich. When the serum is heated to 55°, agglutination becomes changed. An agglomeration is noted, but no true agglutination. Thus it seems that the so-called agglutinins are the hemolysins and bacteriolysins. Hemolysis is the result of an osmotic process, not a chemical solution of the red bloodcorpuscles, due to the presence of a ferment. [M. O.]

2.—Thorner describes in detail his method of photographing eye grounds, showing some photographs which he has taken. By this means the retinal bloodvessels may be exactly measured. [M. O.]

3.—In an extensive article on flittering scotoma, in which several case-histories are reported with minute details, Jolly concludes that flittering scotoma, in its most common, hemiopic form, occurs not from a lesion in the cerebrum or in the cortex, but from one in the primary optic tract, either in the optic fibers or near the external geniculate body. Binocular central scotoma and those one-sided scotomata which pass over the median line are probably due to lesions in more peripheral parts of the optic tract, near the optic chiasm. The scotoma which affects but one eye occurs in the optic nerve or in the retina of the diseased eye. The article includes a discussion of the relation between migraine and flittering scotoma. [M. O.]

4.—Aronson reports in full his recent experiments with streptococcic and antistreptococcic serums in different species of animals. He finds that immunity against all streptococci follows the injection of serum from a horse inoculated with but one variety of streptococcus. Therefore, if all streptococci are not identical, they are at least related. Aronson insists on the specific value of antistreptococcic serum. The article is most technical. [M. O.]

5.—Körte describes the fracture of the left thigh which Virchow suffered when over 80 years of age, and relates the course of his illness. A skiagraph accompanies the article, showing the fracture. [M. O.]

WIENER KLINISCHE WOCHENSCHRIFT.

October 23, 1902. (XV. Jahrgang, No. 43.)

1. Thyreo-aplasia (Congenital and Infantile Myxedema).
FRIEDERICH PINELES.

2. The So-Called Scarlatiniform Serum Exanthem in Diphtheria. KARL LEINER.
3. The Etiology of Volvulus of the Small Intestine.

L. KIRCHMAYR.

1.—Pineles has collected 19 cases of congenital myxedema, 9 cases of infantile myxedema and several cases of sporadic and endemic cretinism, describing these separate varieties in detail. The causes of congenital myxedema, thyreo-aplasia, are chronic alcoholism, tuberculosis, nervous disease and consanguinity in the child's ancestors; of infantile myxedema they are probably the same as in adult myxedema; of endemic cretinism the cause is some unknown infection. In thyreo-aplasia the thyroid gland is absent from agenesis; in infantile myxedema it has atrophied; in endemic cretinism it may show strumous degeneration or atrophy. While the condition is severe in thyreo-aplasia, with marked disturbance of growth, it is generally slight in infantile myxedema, and it may be slight or severe in endemic cretinism. Symptoms of thyreo-aplasia are noted in the second half of the first year or later; after the sixth year in infantile myxedema; in the first years of life in endemic cretinism. While thyreo-aplasia and infantile myxedema generally affect girls, endemic cretinism is noted slightly more often in boys than in girls. Thyreo-aplasia is found all over the world; infantile myxedema in Great Britain and Belgium mainly; endemic cretinism in the countries where goiters and cretinism exist, as in Switzerland. [M. O.]

2.—Leiner reports 6 cases of the so-called scarlatiniform serum exanthem in diphtheria, observed among 108 children. The eruption appears within 5 days after the serum injection, is followed by desquamation and frequently by nephritis, is contagious in spite of isolation and formaldehyde, often begins about the point of injection and is never followed by scarlet fever, although these children were transferred to the scarlet fever wards. In one child urticaria was also noted. Leiner concludes that these were cases of true scarlet fever, following serum injection in diphtheria. [M. O.]

3.—Kirchmayr reports a case of volvulus of the small intestine in a woman of 25, ill 18 days with severe colicky pains, vomiting, which became fecal, tympany and absolute constipation. Laparotomy disclosed a volvulus due to traction of the Fallopian tube on the radix mesenterii. Recovery followed reposition of the intestine. Though the literature is well reviewed, a similar cause of volvulus has rarely been noted. [M. O.]

DEUTSCHES ARCHIV FUER KLINISCHE MEDICIN.

Band 72. Heft 3 and 4.

10. Clinical Observations Upon Cardiac Arrhythmia.
LOMMEL.
11. The Action of Various Baths; Sand-Baths, Mud-Baths, Carbonic Acid-Baths, Etc., Upon the Gaseous Metabolism. WINTERNITZ.
12. Investigations Upon the Muscle Juices. VOGEL.
13. A Further Contribution to the Knowledge of Paralysis of the Face, and at the Same Time a Contribution to the Physiology of Taste and of the Secretion of Sweat, Saliva and Tears. KOESTER.
14. Contribution to the Knowledge of Amebic Enteritis.
ZORN.
15. A Case of Narrow Aorta. BAUDEL.
16. Diagnostic and Therapeutic Remarks Upon a Case of Aneurysm of the Aorta. HARMSSEN.

10.—Lommel has undertaken a series of minute studies concerning arrhythmia of the heart. After a brief historical introduction, he discusses his methods, which consist, in addition to the ordinary means of physical diagnosis, in the graphic registration of the action of the heart by the Marie sphygmograph, and a large kymographion. This was placed preferably on the carotid or the apex of the heart, and at the same time the bloodpressure was taken by the Riva-Rocci instrument on the left arm. He gives a careful discussion of the bigeminal pulse, of which he recognizes 3 types: (1) That occurring in slight or relatively increased in-

tracarotid bloodpressure which he calls bipulsus bigeminus; (2) extrasystole, in organic heart disease, and (3) such as occur in connection with nervous disturbances and poisoning. Increased bloodpressure as a cause of bigeminal pulse has been known for some time; it appears to be due to the fact that tension of the heart wall increases its irritability. He gives a careful description of a number of cases in which he was able to observe it. In many of these the bloodpressure exceeded 130 mm. of mercury. Cardiograms, illustrating these forms of arrhythmia, are also published. (The paper is still unfinished). [J. S.]

11.—Winternitz has made a careful investigation of the effect upon the metabolism of various forms of baths. On 2 occasions he subjected the same persons to careful tests with hot water and found that the increased consumption of oxygen and the formation of carbon dioxide reached a point that resembled that of fever, in fact, exceeded the degree observed in severe febrile processes. He then made a series of investigations upon sand-baths, brine-baths, carbonic acid-baths and sulphur-baths, reaching the following conclusions: Sand-baths cause an increase in the consumption of oxygen and the formation of carbonic acid that exceeds the amounts reached in severe fevers. Compared with warm baths, the increase in the body temperature is moderate, and the change in the general condition is relatively slight. Brine-baths (Soolbäder) cause a scarcely perceptible increase in the oxidation processes, but baths that irritate the skin, as mustard baths, cause a considerable increase in the consumption of heat, the absorption of oxygen and the formation of carbonic acid. In the latter there is absorption of carbonic acid, which is of some significance in the therapeutic action. Sulphur-baths have no influence upon the gaseous metabolism. [J. S.]

12.—Vogel has made some elaborate investigations upon the muscular juices. For this purpose he removed the deltoid and biceps from the right arm of a number of adult corpses, and, after carefully weighing and mincing them, expressed the juice, the dry residue and quantity of nitrogen in which was carefully determined. It was found that in very muscular persons the percentage of water in the muscles was less than in weak atrophic muscles. The percentage of nitrogen was correspondingly greater. The amount of juice appeared to vary extraordinarily, but was usually lower in the large than in the small muscles. The quantity of water in the juice was fairly uniform with the quantity of oxygen; greater in the well-developed muscles. The alterations in the quantity of juice were probably produced in part by edema, in part by rigor mortis, in part by post mortem chemical changes. Some experiments were, therefore, made upon oxen suddenly killed, while in perfect health, and it was found that, while the muscle was still capable of contracting, even a pressure of 1770 kg. produced no juice whatever. When the muscle died, liquefaction of the albumin began, proceeding more rapidly at higher than at lower temperatures. The muscle juice, therefore, represents the product of post mortem proteolysis. Rigor mortis is usually associated with the development of the acid reaction of the muscle, which becomes greatest on the first and second days, and then gradually sinks while the proteolysis proceeds more rapidly. Therefore, meat juice may be regarded as one of the phenomena of the ripening of meat. A series of experiments upon the juices expressed from various kinds of meat showed it was fairly uniform in constitution. There was about 10% dry substance, 90% water, 8.2% albumin, and 0.09% of nitrogen in the so-called extractives. The ash ranged from one to 1.3% and the fat from 0.3 to 0.8%. The juice, therefore, contains about 0.4% as much albumin as lean meat, showing that it represents a very valuable nutrient. The question arose whether bacteria had anything to do with the formation of the juice, and cultures were made from various portions of meat. Immediately after slaughtering it was found that the interior was sterile; after 6 hours there was a very slight growth upon the culture media; after 24 hours numerous colonies developed. After 48 hours the number of bacteria was enormous. However, comparison with meat kept under aseptic conditions showed that practically as much juice could be obtained, and, therefore, we must conclude that it is produced by autolysis of the muscles and not by post mortem putrefaction. Exam-

ination of the juice obtained from a muscle 24 hours after death of the animal and then at intervals of a week and a month showed only a moderate reduction in the amount of solid material in the juice. This was always greater when the meat had been kept in the incubator. The cause of the autolysis is not known, but the process can be prevented by cooking. Some interesting experiments have shown that muscular autolysis can occur during life, particularly in muscles, the circulation of which has been stopped, that after having persisted to a certain degree, if the circulation is restored, the muscle becomes again perfectly normal. There is also some reason to believe that mere muscular activity produces a slight solution of the muscular substance. [J.S.]

13.—Köster continues his valuable study upon the changes produced in the various secretory functions of the face and in taste in cases of paralysis of the facial nerve. He describes his methods, particularly those for testing the secretion of tears, which is always difficult, and believes that the reflex tear production is a trustworthy indication of the normal or pathological state of secretion of the tear glands, because the 2 sides normally differ so slightly that any great difference may be taken as an indication of some disturbance. He gives the histories of 24 cases and then tabulates the changes found in them. In the majority of cases the secretion of sweat was diminished, although in a fair proportion it was increased, therefore, both irritative and paralytic conditions of the excitosudoral fibers must exist, and these fibers must be independent of the motor fibers. The test of the taste sense showed some interesting facts. Often only one or 2 of the ordinary taste qualities were lost whilst the others were preserved. Köster believes that this indicates that separate nervous fibers, or rather separate neurons, exist for each particular taste; that the specificity of the 4 tastes is not due to particular end organs but to special nerve fibers going to these end organs. There are evidently different powers of resistance in the different fibers in different individuals, and the taste fibers show considerable diversity in the routes by which they reach the tongue. (The paper is still unfinished). [J. S.]

14.—Zorn, after a careful review of the literature of amebic dysentery, describes a case that he observed in a student, 21 years of age, with the characteristic symptoms. The treatment consisted first in enemata of Carlsbad salts, and later enemata of tannin, with a strength of 1.5%, alternating with enemata of 0.4% quinine. After nearly a year the patient was so improved that he was able to leave the hospital. Later he had a relapse, which was treated with a preparation of simaruba and granate root, the result being excellent, and the patient recovered. In the stools ameba were found measuring from 14 to 22 microns in diameter. Each contained a nucleus with nucleolas from 2.2 to 2.4 microns in diameter, and one or more vacuoles about the size of the nucleus or slightly larger. Many of them contained red bloodcorpuscles, some of them appearing to be stuffed with them. In the resting state they were round or oval. Sometimes they showed amebic movements, sometimes movements of the protoplasm without change of form. The rapidity of the movements varied greatly under different circumstances, and they were most rapid at temperatures of from 34° to 38° C. Over 40° C. all the ameba passed into the resting stage. The duration of life seemed to be about 8 to 10 hours at the optimum temperature. After this the cell bodies contracted, and it was difficult to recognize them either in the stools or preparations. It was found that a solution of one to 1000 quinine did not destroy them in 2 hours. The best method of staining consists in mixing a small quantity of the feces with 2 or 3 times the amount of a chromic-osmic acid solution, shaking well and after 10 minutes centrifugating. The sediment is then mixed with 5 times its volume of one part Beale's carmine and one part water and after a half hour again centrifugated. The sediment is then mixed with 10 times its volume of diluted Beale's carmine and allowed to stand 24 hours. The preparation can then be mounted in Canada balsam, after carefully removing the water. No method of culture succeeded. These preparations resemble the ameba coli felis more closely than any other. [J. S.]

15.—Baudel reports the case of a boy of 19, who was brought to the hospital suffering from cough with green

expectoration. There was no history of any cardiac disorder. The heart was considerably enlarged and acted rapidly and excitedly. There was a loud diastolic murmur in the middle of the sternum. He improved very rapidly; the sphygmograph showed a receding pulse-curve, the patient improved and was discharged. He re-entered the hospital suffering from dyspnea, cyanosis, and the cardiac condition was the same. He gradually died with symptoms of cardiac failure. At the autopsy it was found that the orifice of the aorta and the aorta itself were abnormally small; there was recent endocarditis of the aortic valves, and these were thickened and retracted. There was also evidence of endocarditis upon the mitral valves. The interesting features of the case are that the patient was well developed in spite of a narrow aorta, that had apparently been entirely sufficient until he was 16 years of age. There was nothing in the physical signs characteristic of a narrow aorta. [J. S.]

16.—Harmsen reports a case of aneurysm of the aorta occurring in a man, 44 years of age, involving the ascending portion of it. The patient was treated by various methods; rest, potassium iodide and injections of gelatine, the latter causing some temporary improvement, but the patient finally died. At the autopsy numerous embolic foci were found in the brain. The aneurysm extended from the aortic valves to the innominate artery, but did not involve the origin of the great vessels. The only conclusion drawn from the treatment was that the gelatine injections were not dangerous and served to control the hemoptysis. A strong 30% solution was used and found to be more satisfactory than the weaker solution. [J. S.]

ZEITSCHRIFT FUER KLINISCHE MEDICIN.

Band XLVI, Hefte 1 to 4.

Festschrift for Dr. Teodor Dunin, of Warsaw, in Honor of His Twenty-five Years' Service as Hospital Physician. Contributed by His Assistants.

1. Investigations Concerning the Contagium of Smallpox. W. DOMBROWSKI.
2. The Question of the Treatment of Aortic Aneurysm with Subcutaneous Injections of Gelatine. M. HALPERN.
3. Casuistic Contribution Concerning Tumors and Abscesses of the Brain. ST. KOPCZYNSKI.
4. The Diagnostic and Prognostic Significance of Hematemesis. W. JANOWSKI.
5. Three Cases of Arsenical Neuritis. W. JANOWSKI.
6. Contribution Concerning Chronic Ankylosing Inflammation of the Spinal Column. J. MARKIEWICZ.
7. Concerning Hemorrhagic Erosions of the Stomach. S. MINTZ.
8. The Chemical and Morphological Characteristics of Fatty Effusions (Hydrops Chylosus et Chyliformis). ST. MUTERMILCH.
9. Periodic Neurasthenia. A. PULAWSKI.
10. Determinations of the Value of Foods Used in a Sanatorium. A. PULAWSKI.
11. Concerning the Pathological Anatomy and the Clinical Picture of Primary Sarcoma of the Stomach. J. PETROKONSKI.
12. Metabolism in Chronic Nephritis. C. v. RZETKOWSKI.
13. The Operative Treatment of Hydrops Anasarca. S. TRZEBINSKI.
14. Determination of the Functioning Power of the Kidneys with the Aid of Methylene Blue. A. LANDAU.
15. Experimental Investigations Concerning the Iron in the Organisms of Man and the Lower Animals. H. LANDAU.
16. The Influence of Alcohol Upon the Circulation of the Blood. J. SWIENTOCHOWSKI.

1.—The author has carried out observations in a series of cases of smallpox. He finds that the individual lesions contain a fluid which microscopically appears to be a pure culture of micro-organisms, all of which, at the period of suppuration, appear to be in about the same stage of growth. They are small, dark, roundish dots, which usually have a bright area around them. They are always in active motion, the motion being probably partly molecular. In the later stages the objects have flagella-like attach-

ments, which are difficult to see. The same fluid, if kept a day, will show other larger bodies, which contain dark granules, the granules showing rapid movement. The more pus-like the contents become, the fewer of the fine bodies are seen. The author believes that these bodies reproduce entirely by budding. He has found the same bodies in the blood of almost all cases, both severe and mild. He attempted to make cultures, but was unable to do so. He believes, therefore, that suppuration in smallpox is the result of secondary infection with pus-cocci. He noted, however, that, if the needle was stroked across the apparently sterile surface of an agar-culture and then washed off in a drop of sterile water, numerous fine bodies, similar to those previously mentioned, were found; and they could be found for months. If agar is inoculated with the blood from smallpox patients, the blood loses its red color, and the stroke becomes broader and thinner; and in the stroke are found the same bodies. He believes that the fine bodies and the large cocci are different stages of the growth of the same parasite. He is inclined to classify these parasites as blastomycetes. He has been unable, as yet, to carry out animal experiments, but he thinks that the organisms are pathogenic. [D. L. E.]

2.—Two cases of aneurysm treated with gelatine are reported. The results of the injections were entirely negative, so far as improvement was concerned; and, indeed, the injections seemed rather to cause the patient to grow worse. The author believes that gelatine does not, of itself, cause clotting; and that, if it has any favorable influence, it only helps other methods. [D. L. E.]

3.—Six interesting cases are reported; 2 tumors of the cerebellum and one tumor of the base of the skull, in the region of the pons; and one abscess of the temporo-occipital lobe, one of the frontal lobe, and one of the temporal lobe. The abscess of the frontal lobe was particularly interesting, because of the diagnostic difficulties. An abscess was considered probable, on account of the sudden onset, with chills, the presence of somnolence, but the absence of dementia, the slowing of the pulse and the slight elevation of temperature. There was no etiological history to be discovered, and the abscess belonged to the so-called idiopathic type. In another case of abscess there were marked choked discs; active epileptic attacks, which had persisted for some years, and an absence of etiology for abscess in the history. The author notes, however, that changes in the eyeground are not so uncommon in abscesses as they were once thought to be. Oppenheim considering them to be found in 30 to 35% of the cases. The epileptic attacks were probably due to associated conditions. The diagnosis of tumor was made because of the presence of paresis, together with the involvement of numerous nervecenters; had the tumor been in the pons, it would probably have caused complete motor, or, at least, sensory paralysis. Besides, the vertigo, nausea and vomiting were intense; and, further, it was possible to move the eyeballs toward the side of the lesion at the same time that they were converged. There was no dysphagia, and speech was unaffected. [D. L. E.]

4.—Janowski gives an interesting and complete general discussion of hematemesis, which, however, is not suitable for abstracting. [D. L. E.]

5.—Three cases of arsenical neuritis are reported, the third being especially interesting because the left upper extremity only was involved. It is uncommon to see involvement of but one extremity, and apparently the left upper extremity has been reported but once as being involved alone. The author particularly insists upon the fact that a study of the literature clearly demonstrates that arsenical neuritis is most frequently due to acute intoxication with arsenic. He has collected 253 cases, of which 136 were due to acute poisoning. The condition most frequently involves the lower extremities, and the peripheral parts—viz., the feet, the hands and the lower part of the legs—are the favorite seats. Among symptoms the author mentions the following: Muscular twitchings, which are common; muscular atrophy; pains, which are among the first and the most persistent symptoms; paresthesias, which are practically always present, and tenderness over the nerve-course and over the muscles, which is extremely common. The sense of touch is usually greatly reduced

or absent: the sense of pain is decidedly increased: the temperature sense is most frequently normal; the pressure sense varies; the muscle sense in the most involved peripheral portions is lost or decreased, and the stereognostic sense has been but rarely studied, but has been found by the author often decidedly involved. Ataxia is frequently present: vasomotor disturbances are common; elevation of temperature is also common, perhaps on account of the vasomotor disturbances. Beside the muscle-atrophy, there are frequent trophic changes in the skin, particularly pigmentation, and the hair is often lost. Disturbances of the bladder and rectum have been repeatedly observed. Disturbances of sight are uncommon; of hearing, very uncommon. Psychical disturbances are very rare. **As a rule, entire or almost entire, recovery occurs.** The treatment consists in removing all danger of further poisoning, warm applications, potassium iodide and occasionally morphine hypodermically. Electricity should never be used until all the signs of active disease have ceased; the same is true of massage, baths and gymnastics.

[D. L. E.]

6.—The first case reported was one in which the disease involved only the sacrum and the lower lumbar vertebræ. The autopsy showed that the **sacral foramina were almost invisible**, because of a thickening of the soft tissues and of the bone, and that the **sacral canal was greatly narrowed**. The bone was more compact than normal. The disease had followed trauma. The second and third cases reported were of the Marie-Strümpell type. There was a typical ascending disease, involving the large joints and the joints of the spinal column. There was less pain and but few nervous symptoms. The disease was chronic in its course. Passive movements caused improvement, but this improvement was not very notable in either patient.

[D. L. E.]

7.—Mintz does not think that erosions of the stomach constitute a distinct disease. He believes that to call the condition **chronic exfoliative gastritis** or chronic ulcerative gastritis is more rational than to consider it a separate condition. He describes 2 cases in which the diagnosis was made by the constant presence of portions of mucous membrane in the wash-water from the fasting stomach. He insists upon the importance of constantly finding such fragments. **The gastric chemistry may show various states from anachlorhydria to hyperchlorhydria.** Treatment with silver nitrate solution and lavage caused rapid and practically complete recovery in these cases. [D.L.E.]

8.—The case reported was that of an infant girl, 5 months of age, thought to have a pleural effusion. Exploratory puncture showed a milky fluid. **The effusion, which was afterward drawn off by tapping, proved to be exactly of the appearance of milk**, and microscopically contained numerous fine granules in active motion, and a considerable number of large granules. There were also a certain number of white bloodcorpuscles, some large cells with large granules in the center, and a few red bloodcorpuscles. A chemical examination of the fluid showed over 8% of solid matter, of which more than 6% was albumin. The ether extract constituted about 1.5%, of which somewhat more than 1-10% was cholesterin. The mere milky appearance of an effusion of this kind does not, as is well known, show that it is chylous. The chyliform effusions due to fatty degeneration of the cells contained in the exudate may have the same appearance, and may even give the appearance of a layer of cream on the surface after standing. Among the distinctive characteristics is the fact that **the chylous effusions show numerous, very minute fat-granules with very active movement, very few large granules and few actual fat-drops.** In the chyliform exudate the fat-granules are usually larger, and are often in the form of actual fat-drops. Cells are rare in the chylous, and numerous in the fatty degenerated exudates. The determination of the albumin and sugar is of little importance. It has been considered that the ratio of the lecithin, cholesterin and fat is characteristic; but this cannot be considered to be true, as the ratio is variable. Possibly of more importance is the ratio of cholesterin to the albumin, which, in the chylous exudate, is about 1 to 20 up to 1 to 30, but this is not considered of much importance by the author. He believes that **microscopical ex-**

amination alone shows characteristic differences, and even this is often disappointing. [D. L. E.]

9.—A series of 9 cases is reported, 6 of which are considered to be **typical examples of the condition which Dunin terms periodical neurasthenia.** Pulawski believes there is no doubt that there is such a condition and that it has no **essential relation to the periodical mental disturbances.** It is characterized by the periodical occurrence of symptoms that are those observed in ordinary neurasthenia. There may be, and usually are, slight symptoms of neurasthenia in the interval, the striking thing about the condition being the **rather sudden and somewhat cyclical occurrence of much more marked and more striking evidences of neurasthenia** than those usually present. The attacks may be very brief or prolonged; they may occur rarely or every day; they are, in the author's belief, practically always associated with depression. A case of **periodical disturbance of this kind, associated with excitement, he considers to be worthy of grave suspicion of actual mental disease.** In his belief, periodical neurasthenia is not rare; he thinks that it constitutes about 2% of all cases of neurasthenia. The prognosis is less favorable than in the ordinary neurasthenia, because of the impossibility of determining whether relapses will occur or not. The cause is believed by Pulawski to be probably some toxemia. [D. L. E.]

11.—A case of primary sarcoma of the stomach is reported, and a study of the literature is given. It is especially insisted that **the progress of the disease is very slow as compared with carcinoma, and the tumor is likely to reach an enormous size as compared with the size of cancer,** these two being the chief characteristics which clinically may make it possible to suspect, at least, the presence of sarcoma, rather than of carcinoma. **Sarcoma is likely to last from 2 to 4 years after definite symptoms have developed.** It is also of some importance that free HCl—in a number of cases, at least—has persisted for a much longer time than it commonly does in carcinoma, and has been observed to be present even up to a few weeks before death. The vomiting of blood is also uncommon in sarcoma, and sarcoma is likely to occur in younger persons. **Enlargement of the spleen is said to be characteristic of sarcoma, but this is an error.** [D. L. E.]

12.—Rzetkowski contributes an interesting study of metabolism in a case of chronic nephritis, carried out under von Noorden's direction. He determined the total nitrogen, the nitrogen of the albumin, the uric acid nitrogen, the xanthin nitrogen, the P_2O_5 and the chlorides. He reports a number of interesting details, but the most important is the fact that the man showed a **very decided nitrogen-retention during the period of observation; and, from his improvement in general symptoms and his lack of dropsy, it was decided that this must have been due to actual building up of tissue—an observation which is of great interest, because it shows that on a moderate diet the man was actually gaining in tissue, in spite of a very considerable degree of albuminuria.** He showed distinct phosphorus-retention, however, over and above that which was explained by the building up of tissues. The same observation has been made previously; its significance is questionable. Practically the most important points to be drawn from such investigations are that a **moderate albuminuria may mean nothing of immediate importance, and perhaps nothing that is likely to be of importance for years.** Unless the patient's general condition is grave or growing worse, albuminuria does not demand absolute restriction in diet. The diet of nephritic patients should consist chiefly of carbohydrates and fats; but, in prescribing a diet, the condition of the digestive organs should be carefully considered, even if it demands the use of easily digested albumins. More important still than this, **even a patient with nephritis must have a fair amount of albumin, or he will lose tissue and be worse off from this cause than from his nephritis.** The important point to be remembered in a diet is to see that it does not contain large amounts of substances that are actively irritating to the kidney, rather than to see that the amount of albumin is low. Meat in moderate amounts may be prescribed in many cases, particularly boiled. One may also give eggs, cheese, readily digested vegetables, cereals and fruit. **A large amount of**

mineral salts (ordinary table-salt, even) should be avoided. This prohibition includes foods that are put up in salt, and similar food-preparations. Foods containing much spice, meat-extracts and the like should also be avoided. Only moderate amounts of fluids should be allowed, because they severely tax the heart. This latter is the important argument against an exclusive milk diet. To nourish a patient properly with milk, one must make extreme demands upon the heart. [D. L. E.]

13.—The basis of the article is constituted by 2 cases repeatedly treated by puncture and drainage of the edematous lower extremities. In one case temporary improvement occurred, but the patient died from cardiac incompetency. In the second, there was great improvement; but a caretaker was careless about the treatment of the wound, a rapid gangrene developed and caused death. A discussion of the various methods of operative treatment of anasarca is given. It is held by the author that the tubes are decidedly superior to incisions, as they drain just as well and cause less danger of infection. If incisions are made, they should be small—not over an inch in length. In many cases the results are extremely striking. In the Hospital of the Infant Jesus, in Warsaw, the procedure is carried out regularly when thought to be indicated; and it is common to see from 11 to 17 quarts of fluid drained off in this way within 24 hours. A collection of cases treated in this manner shows about 12% of infections. This figure is probably excessively high, because many of these cases were collected from periods during which asepsis was very imperfect. The author considers that any cardiac cases with anasarca, in which cardiac and diuretic drugs have been inefficient, indicate the use of puncture.

14.—Landau has made a study of methylene blue as an indicator of the functioning power of the kidney, in a series of 24 cases. He discusses the details of his work and reaches the general conclusion common to practically all those who have recently worked with this method, that it has little importance in actual clinical work. Results of small consequence are obtained, but the errors are so great that, on the whole, little is gained. Methylene blue is a substance that is foreign to normal metabolism, and it is hardly to be expected that it can indicate the power of the kidney to carry on its normal work. The substance is also partly excreted as a chromogen; hence, its excretion is not entirely dependent upon the action of the kidneys, but also upon that of the organs which elaborate this chromogen. [D. L. E.]

15.—After an extensive study of the literature and a series of painstaking animal-experiments and chemical analyses, Landau reaches the conclusion that inorganic iron is absorbed from the digestive tract, the absorption occurring chiefly in the duodenum. The iron is collected by both the lymph passages and the bloodvessels. Under normal circumstances but little is absorbed. The iron is deposited in the liver, the spleen and the bone-marrow; in the last two, in organic combination. The only conditions causing a marked increase in the iron of the liver are those associated with decided destruction of the red cells. Excretion of iron occurs almost exclusively in the lower intestine. Administering inorganic iron to rabbits caused a notable increase in the iron of the liver and spleen. It is possible to increase the iron deposits in the body by adding inorganic iron to artificial iron-free food. The iron deposits, however, never equal those seen in normally fed animals, and the animals never develop as well as those normally fed. The action of inorganic iron, the author considers, is not due to its stimulating influence upon the blood-forming organs, but to its direct effect and its use in the actual building of bloodcorpuscles. [D. L. E.]

16.—The general conclusions from the study are that alcohol influences the circulation weakly. The first symptoms of the intoxication are undoubtedly due to the beginning paralysis of the psychomotor centers. The apparent feeling of stimulation is due merely to a slight depression of consciousness or of the sense of pain. It is possible to work harder after taking a little alcohol only because fatigue is not noticed. Some persons have attributed the marked effects to the ethereal oils in old wines, etc.; but a comparison of some very high-priced old cognac with

ordinary schnapps showed no notable difference. The author believes that alcohol cannot be considered a stimulant; that it may be used properly to quiet excitability, but that its action upon the heart muscle is undoubtedly solely a bad one. [D. L. E.]

(Band XLVI, Hefte 5 und 6.)

1. The Bacteriology of Acute Articular Rheumatism. FRITZ MEYER.
2. Clinical and Experimental Investigations Concerning the Value of Oxygen Inhalations. E. ROGOVIN.
3. What Does one Learn from Medical Casuistry Concerning the Changes in the Activity of the Official Digitalis Leaves at Various Seasons of the Year? FOCKE.
4. Investigations Concerning the Amount of Bacteria in Human Feces. J. STRASBURGER.
5. Concerning Myeloma and the So-called Kahler's Disease (Multiple Myeloma Associated with Bence-Jones Albumosuria).

GEORG JOHMANN and O. SCHUMM.

1.—Meyer's investigations were conducted upon 25 cases of the sore-throat accompanying polyarthritides and one case of verrucose rheumatic endocarditis. Investigations were then made of the effect of the bacteria upon animals. As a general result of his studies, the author insists that articular rheumatism is a streptococcic infection of a special variety. He believes that the bacteria found have a particular tendency to affect, in animals, those organs which, in human beings, are involved in the course of acute rheumatism; that they produce a process which, clinically and anatomically, resembles that seen in rheumatism; and that, as in rheumatism, the bacteria are subsequently not demonstrable by our present methods of investigation. The bacteria rarely exhibit an increased virulence. The author believes that this explains the striking difference between acute articular rheumatism and pyemia. [D. L. E.]

2.—The literature concerning oxygen-inhalations is reviewed. The author reports a series of investigations on patients suffering from extreme dyspnea and cyanosis from various causes, and also some experimental work on animals poisoned with strychnine, morphine, chloroform, illuminating gas and aniline. He believes that his experiments demonstrate definitely that the inhalation of oxygen results in improvement, and often in entire cure, in poisoning with the substances mentioned; and that this is due to the increased absorption of oxygen into the blood. The same satisfactory effect was observed in human patients. The author believes that in various conditions associated with dyspnea, cyanosis, anemia, etc., the amount of oxygen in the blood may be far below saturation; and that one can actually increase the amount of oxygen in the blood in such conditions. [D. L. E.]

3.—After a prolonged study of the changes in the activity of digitalis leaves at different times of the year, Focke decides that this drug, as obtained from various regions, shows entirely regular alterations at different periods of the year. These alterations were always in direct association with certain definite periods of the year, the general result being that the old leaves found toward the beginning of August have customarily only about one-quarter of the activity of the new leaves. [D. L. E.]

4.—The various methods of determining the number of bacteria in the feces are reviewed and criticised; making cultures, counting the bacteria, etc., are, at best, very inaccurate methods. Strasburger's method depends upon the fact that upon rubbing the feces with water and then centrifugating, bacteria remain suspended in the fluid; while all the grosser particles collect at the bottom of the glass. The bacteria are then precipitated by the addition of alcohol, dried and weighed. Besides this, a definite amount of feces (2 cc.) is measured off, rubbed with water, centrifugated as mentioned, and dried; and the weight of this is compared with the total weight. In this way the author has studied a series of normal cases and a considerable number of various kinds of abnormal cases. He considers it important to use a regulated diet and to mark off the daily feces accurately. In this way he finds that normally about one-third of the dry residue of the feces consists of bacteria. The amount of the bacteria, as daily excreted, normally equals about 8 gm.; with dys-

peptic disturbances without marked diarrhea, it is about 14 gm.; with habitual constipation, 5.5 gm., or occasionally even as low as 2.6 gm. The conditions in constipation are notable. They seem to show that food is more completely absorbed than is normal. The bacteria have, therefore, little nutriment upon which to grow, and probably the lack of growth of the bacteria is one of the causes of the constipation. In one case in which bile was absent from the intestine, the bacteria were found very low. After the obstruction to the bile-outflow had been overcome, the amount of bacteria rose again. In sucklings the number is about the same as in adults, except in dyspepsia, when they sometimes equal two-thirds of the entire feces. The average daily excretion of bacteria in numbers, the author considers to be about 128,000,000,000. He thinks that about half the daily nitrogen in the feces is due to bacteria. He believes that by this method of study we may determine whether intestinal antiseptics have any actual value. [D. L. E.]

5.—The case reported was that of a woman, aged 37, the clinical course being interesting because she had not only the symptoms which are common in myeloma and are referable chiefly to the bones of the trunk, but also fractures of the bones of the extremities and deformities of these bones. She was likewise shown, by X-ray examination, to have great thickening of the bony substances of the pelvis and of the long bones of the extremities. The diagnosis at first, even after the post mortem, was osteomalacia; and in a preliminary communication the case was reported as an instance of that disease with albumosuria (Bence-Jones form). The authors now, after an elaborate macroscopical and microscopical study of the case, decide that it was not osteomalacia, but actual myeloma with changes closely resembling those of osteomalacia, the most important point in the case being the fact that there was marked involvement of the long bones of the extremities. They review at length the literature concerning this subject, and the details of their own case. They especially insist upon the probable importance of X-ray examination in diagnosing the condition from osteomalacia. Further study of the radiographs of their case leads them to state that the eating away of the cortical wall of the hollow bones with the remarkable lacunæ thus formed, and the marked irregular projections between the lacunæ; the striking thickening of the compact substance of the bone and the disappearance of the spongy substance, could scarcely be found in osteomalacia. Bence-Jones albumosuria does not occur in pure myeloma only; it may occur in other diseases of the bone marrow. The authors consider, therefore, that the condition should not be spoken of as a disease, but as a syndrome. The albumosuria is of the greatest importance, however, because it directs attention to the disease of the marrow. Schumm continues the paper with an extensive chemical study of the substance excreted in the urine. He agrees with Magnus-Levy that it is not a true albumose, that it stands between true albumose and albumin. He was able to determine the presence of an albumose-like substance in the blood in this case. This substance, however, resembled a deuto-albumose. It did not give the histon reactions; it was, therefore, not identical with globin. It was impossible to state that it was the same substance as that excreted by the kidneys. [D. L. E.]

ZEITSCHRIFT FUER HEILKUNDE.

September, 1902. (Vol. 23, No. 9.)

1. The Development of Carcinoma Upon a Gumma. LUDWIG SPITZER.
2. The Albumin-Destroying Effect of Pus. RUDOLF KNAPP.
3. Lymphangioma With Temporary Chylorrhea. NEUMANN.
4. The Relations of Foreign Bodies Ingested to Herniæ. MORIZ von STATZER.
5. A Case of Medial Cleft of the Lower Lip, Lower Jaw and Tongue. HANS SALZER.
6. The Total Nitrogen and Uric Acid Excretion in Psoriasis. LEO von ZUMBUSCH.

1.—Spitzer reports the occurrence of cancer upon a gumma, in a man who contracted syphilis in 1891. He had

mercurial inunctions then, potassium iodide the following year, and mixed treatment in 1893 and 1894, when a gumma of the upper lip appeared. In 1895 he had fully recovered. In 1898 a tumor developed on the upper lip where the gumma had been. This healed upon mercury and cauterization. In 1899 ulceration of the upper lip and nose appeared, showing typical carcinomatous degeneration. The affected tissues were extirpated, with recovery following. Carcinoma following gumma is rare. [M. O.]

2.—Knapp reports a number of experiments and concludes that the destruction of albumin is generally due to bacteria in pus, the ferments alone being unable to cause the destruction of albumin. Sterile ascitic fluid, when allowed to stand some time, undergoes changes in the amount of coagulable albumin, albumose, peptone and nitrogenous extractives present. His experiments show little destruction with streptococci, more with staphylococci and most with bacteria coli. An increase in coagulable material was noted in one case only. [M. O.]

3.—Neumann reports a case of lymphangioma on the inner side of the left thigh, which caused vaginal chylorrhea temporarily, in a girl of 14. Excision of the tumor was followed by rapid recovery. A full review of the literature is given. [M. O.]

4.—The case-history of a man of 44 is reported, taken ill suddenly with an incarcerated inguinal hernia. Operation a week later disclosed an abscess due to 2 perforations of the intestine from a piece of bone. Death from peritonitis followed. Von Statzer found 13 similar cases due to pieces of bone, 4 due to seeds of fruits, 3 due to needles and 6 to various other foreign bodies. Thus 27 cases of hernia following the ingestion of foreign bodies have been collected. The symptoms, prognosis and treatment are discussed. [M. O.]

5.—Salzer reports the interesting case of an infant of 3 months, with medial cleft of the lower lip, lower jaw and tongue, a very rare condition. On account of malnutrition and eczema, operation was deferred until the child was 18 months old. The tumor in the median line was removed, and the structures joined, the bones being connected by aluminum bronze wire. The child recovered rapidly. As the tumor consisted of muscular tissue covered with intestinal mucous membrane, it must have been a teratoma. Two somewhat similar cases were found in the literature. The etiology was discussed. [M. O.]

6.—Von Zumbusch describes his experiments in the estimation of the total nitrogen and uric acid excreted in 21 cases of psoriasis. As both were approximately normal in amount, he concludes that the examination of the urine for the total nitrogen and uric acid excreted does not show the presence of the gouty diathesis with psoriasis. [M. O.]

VIRCHOW'S ARCHIV.

Band 168. Heft 1.

1. My Views upon the Structure of the Liver Cells. BROWICZ.
2. The Change (Metaplasia) of the Cylindrical Epithelium to Squamous Epithelium in the Nasal Cavity of Human Beings. A. SCHOENEMANN.
3. The Histopathology of the Pancreas in Diabetes Mellitus. M. HERZOG.
4. The Normal and Pathological Morphology of the Internal Secretion of the Pancreas. L. SSOBOLEW.
5. The Anatomy and Pathogenesis of Diverticula of the Anterior Wall of the Esophagus. M. HAUSMANN.

1.—Browicz puts himself on record regarding his views upon the structure of the liver cells. He believes that these cells contain minute canals, which he has been able to demonstrate by means of artificial injection and by the investigation of cells in pathological conditions. These canals serve to receive the red bloodcells which are destroyed, and their hemoglobin converted into bile pigment, and the bile pigment is discharged through another set of canals. As these canals are permanent, the substance of the liver cells cannot be the semifluid material usually supposed, but there must be a skeleton-like tissue in which the intracellular canals run, giving rise to a sort of spongy

texture. Therefore, the liver cell is a complicated structure somewhat analogous to an organism. The substance of the cell must also possess a considerable degree of elasticity. Of course, these canals, invisible when empty and only visible when containing some foreign material, are the same things as the vacuoles, so frequently described by other writers. [J. S.]

2.—Schönemann has performed a most extraordinary series of investigations in order to determine the relation of morphological alterations in the nose, both microscopical and macroscopical, to ozena. For this purpose he has made a very careful series of measurements of the nose and various bones of the skull in 83 cases, and has also made careful microscopical studies of the mucous membrane of the turbinated bones and the septum. In these 83 cases there was one of certain ozena and 3 of doubtful ozena. Some of his results are as follows: A narrow forehead and upper part of the face is always associated with a narrow nose. A broad forehead has a broad nose about twice as often as a narrow nose; the septum varies a little bit more frequently. It appears that high, narrow noses are somewhat more frequent than broad noses. The broad noses are less likely to have atrophy of the turbinates than the narrow noses. The septum does not appear to take any important part in this atrophy. The broad noses are also less likely to have empyema of the sinuses. Patients suffering from tuberculosis are rather more likely to show changes in the nose. Schönemann gives a description of his technique, discusses the literature of the subject and gives also the results of his studies in some 30 newborn children, which proved to him that metaplasia of the epithelium is always a postnatal change, and finally he concludes as follows: Metaplasia, that is the conversion of the cylindrical epithelium into squamous epithelium, is very common. It seems to follow no particular rule excepting that it is more common at the extremity of the middle lower turbinated bone. It is not essential for the occurrence of ozena, although it is frequently found in this disease. Nevertheless, often when found there is no certain parallel between the intensity of the process and the extension of the metaplasia. The peculiar odor of ozena is probably the result of a degenerative change in Bowman's glands, producing some anomaly in secretion. This may be followed by some decomposition caused by the bacillus mucosus of Abel, or similar micro-organisms. The whole process is probably caused by various inflammatory processes, especially when syphilis is one of the predisposing causes. The way in which ozena is brought about cannot at present be stated. We know, however, that pus flowing from the accessory sinuses of the nose over the turbinated bones may give rise to it. [J. S.]

3.—Herzog has examined the pancreas in 8 cases of diabetes mellitus. As a result of certain circumstances careful examinations could only be made in 3 cases, nevertheless, in all there were undoubted changes in the islands of Langerhans. His results confirm those of other writers, that alterations in these islands are frequently present in cases of diabetes. [J. S.]

4.—Ssobolew has endeavored to discover the significance of the islands of Langerhans. After a careful histological description he proceeds to the discussion of his experiments which consisted in the examination of the pancreas after ligation of the duct of Wirsung, in order to note the histological changes which occurred. The majority of operations were made upon rabbits, but dogs and cats were also employed. The changes consisted chiefly in alterations in the glandular part of the pancreas with a very fair degree of preservation of the islands. Experiments were also made by transplanting portions of the pancreas, and it was found that under these circumstances the glands became almost completely atrophied although the islands were still fairly well preserved. After partial extirpation

of the pancreas, dogs were fed upon carbohydrates with intravenous injections of sugar solution, and under these circumstances some atrophy of the islands occurred with disappearance of the fuchsin bodies. Embryologically the islands appeared to be formed much earlier than the glandular tissue of the pancreas. In pathological cases, of which Ssobolew reports 18 investigated by himself, 17 of sclerosis and one of lipomatosis, it was found that the islands were exceedingly resistant elements. The degree of resistance, however, seemed to show considerable individual variation. In 15 cases of diabetes and one of acute glycosuria the changes were various. In 2 the islands were normal; in 4 they could not be found; in 9 they showed considerable diminution in number and some fatty degeneration. In the case of acute glycosuria there was parenchymatous degeneration and pressure necrosis of the pancreas, and the islands showed degeneration of the cells. Therefore, in diabetes it appears that the islands are the least resistant tissues. Ssobolew makes the interesting suggestion that, as there appears to be more relation between the islands and diabetes, and as feeding with ordinary pancreatic tissue is not of much value, it might be worth while to try feeding with the pancreas of newborn calves in which the islands are well developed, although the glandular tissue is scarcely formed. [J. S.]

5.—Hausmann reports 10 cases of diverticulum of the anterior wall of the esophagus, 8 of which he was able to obtain at autopsy, in Berne, in the course of one year, proving that this lesion is not so very rare. Most of the diverticula were studied by an uninterrupted series of sections. In 9 of the cases they were situated in the middle third, in the tenth case somewhat lower. He believes that nearly all these diverticula belong to the traction type, and that they are the result of a tuberculous disease of the lymphatic glands, giving rise to a peri-adenitis, that in turn causes destruction of the internal fibers of the esophagus and also of the circular fibers. The adhesions are formed, and the retraction of the inflammatory tissue gives rise to the diverticulum. In not all cases, however, is the process in the glands tuberculous. In some cases it appears to be due merely to anthracosis; in others there is a local chronic inflammatory process in the wall of the esophagus. In one case there was reason to believe that the lesion might have been congenital. Hausmann classifies the different forms of esophageal diverticulum into traction diverticulum, pulsion diverticulum, traction-pulsion diverticulum and the congenital forms. Among the complications the most important is rupture into the trachea. [J. S.]

NORDISKT MEDICINST ARKIV.

1902. (Afd. 2. No. 3.)

13. The Action of Mercury Upon the Blood in Syphilis. Syphilitic Anemia. Hemolysimetry
EDMUND BUFFA.
14. Myotonia Periodica. N. KULNEFF.
15. Meralgia Paresthetica. I. HEDENIUS.
16. A Case of Congenital Spastic Hypertrophy of the Pylorus. R. E. NORDGREN.

13.—In an extensive article, in which he reports numerous experiments, showing the action of mercury upon the blood in syphilis, syphilitic anemia, the resistance of the bloodcorpuscles and hemolysimetry, Buffa concludes that the anemia noted in most syphilitic patients is best treated with simple, nourishing food and rest; that, while mercury exerts an energetic action upon the symptoms of syphilis, it does not raise the amount of hemoglobin in the blood; that the effect of the mercury is, above all, hematopoietic; that with the rapid increase in the red bloodcorpuscles there is always diminished resistance of the red corpuscles; and that the increase in bloodcorpuscles noted after a mercurial injection is always followed by a decrease in the number of the red bloodcells, corresponding to an increase in their resisting powers. A description of Bizzozzero's cytometer, numerous experiments and observations and a full review of the literature accompany the article. [M. O.]

14.—Kulneff reports the history of a family, 8 members of which have **myotonia periodica**. This consists in irregularly recurring attacks of paresis and paralysis in the muscles of the extremities, the attacks occurring usually when the patient is at rest after some exertion. Three brothers and one sister were affected, children of a man who was supposed to have had such attacks. Kulneff describes the condition as a more or less flaccid paralysis, occurring at irregular intervals, lasting a half hour or longer, affecting some or most of the voluntary muscles, with a decrease in electrical and mechanical irritability of the muscles proceeding parallel with the paralysis, but without psychical or sensory disturbances or disturbances of the special senses or reproductive organs. It is hereditary and innate. A review of the literature follows. The disease seems incurable, but does not cause death. The treatment consists in building up the nutrition of the patient. [M. O.]

15.—Hedenius reports the case-histories of 5 patients, 3 of them men, with **meralgia paresthesia**, a peculiar sensory disturbance of the upper external part of the thigh, affecting the nervus cutaneus femoris externus, in the skin. It is very painful. In one case only was the condition bilateral. All patients exhibited a tendency to neuralgia and muscle pains. Cold or injury may cause the condition. The electrocutaneous sensibility is always diminished. Temporary relief may follow treatment. [M. O.]

16.—Nordgren reports a case of **congenital spastic hypertrophy of the pylorus** in an infant, with death occurring in the eleventh week of life. Vomiting began almost at birth and continued until death. There was constipation, with loss of flesh, dry skin, sunken abdomen, a pyloric tumor and albuminuria. He discusses the prognosis, symptomatology, pathology and treatment. He concludes that an anatomical pyloric hypertrophy occurs in infancy, probably accompanied with spastic stenosis of the pylorus. The etiology is unknown. Both medical and surgical treatment have proved of little avail. Another case is appended, making 32 reported cases. [M. O.]

BOLNITCHNAIA GAZETA BOTKINA.

June 12, 1902. (Vol. XIII, No. 24.)

1. On the Diagnosis of Extra-Uterine Pregnancy. V. PHEDOROFF.
2. The Etiology of Noma. P. P. KORSCH.
3. Pharmacological Experiments on the Isolated Heart of Warm-blooded Animals. N. I. BOTCHAROFF.
4. On Penetrating Punctured-Incised Wounds of the Chest-Cavity. B. K. FINKELSTEIN.

1.—Phedoroff is of the opinion that the greater frequency of extra-uterine pregnancy of late is largely due to mistaken diagnosis. He reports a number of cases closely simulating extra-uterine pregnancy, in which a mistaken diagnosis was made and the mistake not discovered until the time of operation or by the subsequent progress of the patient. Only in about 50 per cent. of the cases is the diagnosis of extra-uterine pregnancy established on the evident clinical symptoms; in the others only a hematocele or hematosalpinx is discovered, and whether these are due to ectopic gestation or other conditions, can be established only by finding the fetus, or, in its absence, by a microscopical examination. In the absence of such verification of the diagnosis, there is no certainty about the case being one of extra-uterine pregnancy, and many cases, therefore, cannot serve the purpose of statistical material. [A. R.]

2.—Korsch reports a case of **noma** following typhoid fever, in a girl, 6 years old. Microscopical examination of the ulcerated area disclosed the presence of **diphtheria bacilli**, strepto- and staphylococci, and large thick bacilli and spirilli. The latter could not be cultivated, but seemed morphologically identical with those found in stomatitis and other ulcerative and gangrenous processes. The diphtheria bacilli possessed slight virulence. The author is inclined to the view that the long bacilli (Vincent's bacillus) and spirilli are the chief causative agents of noma, while the diphtheria bacillus is an occasional factor in the etiology. It is noteworthy that the administration of anti-toxin to this patient had a very beneficial effect. [A. R.]

3.—Botcharoff investigated the effect of **digitalin**, **convallarin**, **strophantin**, **caffeine**, **alcohol**, **veratrine**, **hydro-**

cyanic acid, **arecoline** and **pilocarpine** on the rabbit's heart isolated by the method of Langendorff-Locke. The action of **digitalin** could be divided into 3 periods: A period of slowing of the heart's action, the contractions being stronger; this merged into the next period, during which the number of contractions increased, while the strength either remained the same or slightly increased; this being followed by a stage of arrhythmia and final stoppage of the heart. The number of beats during the "therapeutic period" decreased 12-60 a minute, and during the period following the number of beats increased to 18-60 per minute, the power of the contractions being, in some instances, almost doubled. The cessation of the heart's action was observed after the addition of 5-7 mg. of digitalin in a dilution of 1:100,000. Experiments with **convallarin** were followed by the same results, the only difference in action being quantitative. In dilution of 1:100,000 this drug produced rapid transition of one stage into the other until the heart stopped in systole. In weaker dilutions (1:1,000,000) 1 mg. sufficed to stop the heart's action. The decrease in the number of beats during the "therapeutic period" never exceeded 14 per minute, and the power of the contractions was less than in digitalin. **Strophantin** was found to act on the heart much more powerfully than digitalin. **Caffeine** showed no appreciable effect in dilutions of 1:500,000 to 1:10,000. In stronger dilutions the frequency of cardiac contractions was increased. Concentrations of 1:500 to 1:250 changed the character of the contractions, diminishing their power and finally causing their cessation. The heart's action, however, could be renewed by passing through it pure nutrient fluid. It is interesting that after the use of caffeine the heart proved more resistant to the action of other poisons. **Alcohol**, in weak dilutions, did not increase the power of the cardiac contractions. In dilutions of 1:333, the action being kept up for 20-45 minutes, it did seem to decrease the power of the contractions. Considerable disease was observed when a dilution of 1:50 or 1:25 was used. The effect was not permanent, however, the paralyzed heart being revived by a circulation of pure nutrient fluid. **Veratrine**, in dilution of 1:100,000, caused an increase and slowing of the cardiac contractions. Depending on the length of exposure or strength of the solution the heart weakened and entered a stage in which each strong contraction was followed by a weaker one, until complete arrhythmia supervened. Dilutions of 1:50,000 brought about a marked slowing of the pulse and increased amplitude, this condition being rapidly superseded by arrhythmia. **Hydrocyanic acid**, in dilution of 1:200,000, produced slight slowing and gradual weakening of the cardiac contractions. Dilutions of 1:1,000,000 caused rapid stoppage of the heart. **Arecolin**, in dilutions of 1:5,000,000, caused stoppage of the heart's action, but this could be overcome by previous use of atropine. **Pilocarpine** had a similar effect. [A. R.]

4.—Will be abstracted when concluded.

June 19, 1902. (Vol. XIII, No. 25.)

1. Atrophic Cirrhosis of the Liver Complicated by a Tumor of the Abdominal Wall. E. DIATCHENKO.
2. The City Free Medical Aid in Moscow, Outside of the Hospitals, in Connection with the Question of its Organization Raised at the VIII Pirogoff Congress. E. B. DIMANT.
3. On Penetrating Punctured-Incised Wounds of the Chest-Cavity. B. K. FINKELSTEIN.
4. On the Fight Against Malaria in Accordance With the Postulates of the Mosquito Theory. V. KASCHKADAMOFF.

1.—Diatchenko reports the case of a man, 22 years old, who suffered from what was diagnosed to be **atrophic periportal annular cirrhosis** accompanied with hyperplasia of the spleen and a tumor of the abdominal wall, probably a fibroma. There was nothing in the history of the patient to suggest an etiological cause, as the man gave no history of a specific disease nor was he an alcoholic. The author suggests the possibility of **auto-intoxication** from the intestinal tract as an etiological factor, but admits that the case did not come under the type of auto-intoxication cirrhosis described by Hanot and Boix. This, however, he would explain by the difference in toxic substances which produce different types of the disease. [A. R.]

3.—Will be abstracted when concluded.

4.—Kaschkadamoff reviews the recent progress made in the study of malaria. He presents some of the well-known facts concerning the mosquito-theory, the anopheles, the methods of prevention, etc. He also briefly describes the work of the Special Malarial Congress which met in Nagpur, India. [A. R.]

IL POLICLINICO.

Year IX, fasc 10 and 11. (Sezione Medica.)
September and October, 1902.

1. Organic and Inorganic Iron in the Treatment of Primary and Experimental Anemias.

F. APORTI and S. APORTI.

1.—From clinical and experimental study of this subject the authors find that inorganic preparations of iron are well utilized by the organism and give better and more rapid results than organic preparations; the most rapid and marked increase in hemoglobin being seen after endovenous injection of inorganic preparations of iron. Experimentally, there was but slight difference seen in the effects of inorganic and organic preparations administered through the digestive tract; the results obtained depending, in both classes, upon the amount of iron contained in them.

[R. L. F.]

November 1, 1902.

1. A Special Bacteriological Finding in Supposed Typhoid Cases. G. de ROSSI.
2. Laparotomy and Hepato-Epiploon Suture for Wounded Liver. F. MASTROSIMONE.

1.—Through bacteriological examination of the spleen in 14 cadavers in which the findings at necropsy had confirmed the clinical diagnosis of typhoid fever, de' Rossi isolated the staphylococcus pyogenes albus in several cases in which the bacillus typhosus was absent; from which fact, and from study of the literature bearing upon the subject, the author concludes that a morbid condition may occur which closely simulates typhoid fever, but of which the etiological agent is to be sought among the pyogenous micrococci, especially the staphylococcus pyogenes albus, and he suggests that in every case of suspected typhoid in which the Widal reaction is negative, that repeated bacteriological examinations of the blood be made, possibly including bacteriological examination of the spleen; and that, in fatal cases, careful bacteriological study of the cadaver be carried on, to the end that the occurrence of pseudotyphoid, due to staphylococci as a separate pathological entity, may be determined. Rossi believes that such a condition may account for the failure of the Widal test in some supposed typhoid cases. [R. L. F.]

2.—Mastrosimone reports an atypical case of incised wound of the liver in which symptoms of the liver-wound were lacking, diagnosis having been made from the position of the external wound and from rapid pulse, as the sole indication of internal hemorrhage. The friable nature of the liver-tissue rendering suture difficult, a portion of the epiploon was introduced between the lips of the wound, and the sutures then passed from one side of the wound through the epiploon to the other and tied; this procedure serving the double purpose of providing a tampon for the wound and sparing the liver-tissue further laceration. The patient made a good recovery. [R. L. F.]

REVUE DE MEDECINE.

September 10, 1902. (22me. Année, No. 9.)

1. Sensibility to the Magnet. CH. FERÉ.
2. Variations of Albumin, of Uric Acid and of Total Acidity in the Urine of Permanent or Inconstant Albuminurics. G. DAREMBERG and F. MORIEZ.

1.—Féré has seen the magnet induce return of sensibility in hysterics and in some cases of anesthesia due to organic lesions. It will cure hysterical hemianesthesia after having determined certain oscillations, the phenomenon of transfer. Its action, moreover, is not only on sensibility; but it is also manifested on motility; hysterical hemimythasthenia is modified even as hemianesthesia is. The author has studied the transfer of motility by the aid of the dynamometer and dynamograph, and he observed that, even when the magnet approaches the side which from

the viewpoint of motor energy is the better endowed in an hysterical patient, the patient became exalted at once; the magnet, in other words, acted as a sensorial excitant. On the other hand, the magnet does not always act as an excitant; hypnotic effects are sometimes produced. The oscillations of sensibility in the transfer are accompanied with oscillations of local temperature, and of the caliber of the vessels. As a rule, patients do not acknowledge any consciousness of the presence of the magnet. In the course of experiments on fatigue and upon the influence of different agents on the gait, Féré noticed numerous analogies between a fatigued subject and one, an hysteric, very sensible to the magnet. He thinks the reaction to the magnet is not psychological but physical. The paper is illustrated by many tracings and tables. [J. M. S.]

2.—Daremborg and Moriez, as a result of a study of variations of albumin, uric acid and total acidity in the urine of permanent or inconstant albuminurics, reach the following conclusions: In all cases in which albuminuria is not progressive (*bien supportées*) there is a minimum excretion or total disappearance of albumin in the morning. In the different forms the hour of maximum elimination of albumin is very variable. In cases of permanent albuminuria the maximum excretion is always between noon and 5 o'clock P. M. In albuminurics with total morning disappearance, the maximum excretion of albumin is between 10 o'clock in the morning and 10 o'clock in the evening. In cases of inconstant albuminuria the standing posture is not the factor responsible for the increase of albumin. The cases of albuminuria with morning disappearance are the ones influenced by diet; the others are not influenced by diet. The former are amenable to alkaline treatment; the latter to treatment with arsenic. Massage is unfavorable in both classes of cases. In inconstant albuminuria, the quantities of uric acid, total acidity and albumin are sometimes inversely proportional. The variations between the maximum and the minimum of uric acid and total acidity are much greater in albuminuria with morning disappearance than in healthy individuals. In healthy individuals the hourly curve of elimination of uric acid and total acidity are concordant. Pulse curves are not concordant in albuminuria with morning disappearance. The hour of maximum and minimum elimination of total acidity and of uric acid are constant in healthy individuals and very variable in albuminurics. Patients suffering from inconstant albuminuria may increase in weight even while the amount of albumin excreted increases. [J. M. S.]

LA PRESSE MEDICALE.

October 11, 1902. (Vol. II, No. 82.)

1. Esthetic Ablation of Benign Tumors of the Breast. H. MORESTIN.
2. A Case of Glanders in a Human Being, With Recovery. C. NICOLLE and DUBOS.

1.—Morestin has devised an operation for removing small-sized benign tumors of the breast, without leaving a disfiguring scar. He makes an incision in the line of the axillary fold, after shaving off the hairs, and removes the tumor subcutaneously. This leaves but a faint scar after the axillary hairs have again appeared. This operation, which Morestin calls *esthetic ablation*, was successfully performed in 2 cases, which are reported with photographs. [M. O.]

2.—Nicolle and Dubos report a case of glanders in a boy of 17. One day, after tending to some sick horses on the farm, he felt a foreign body in his left eye which he rubbed severely. The next day a small tumor was noted in front of his left ear, 2 days later swelling of the jaw on the left side was also noticed. Examination of these tumors and of the sick horses showed the bacilli of glanders. The tumors were removed by operation, but recurred rapidly. Upon injection of serum from a heifer, given every 6 days, gradual absorption of the tumors occurred. After 3 months' treatment he had recovered and has remained well for the 10 months following. A review of the literature follows. [M. O.]

October 15, 1902. (Vol. II, No. 83.)

1. The Technique of the Prerectal Incision, for Prostatectomy and Spermatocystectomy.

ROBERT PROUST.

2. Tannin in Tuberculosis. A. F. PLICQUE.

1.—Proust describes the technique of the prerectal incision in men, for performing prostatectomy and spermatocystectomy, illustrating his description with a complete series of photographs. [M. O.]

2.—Plicque believes that few drugs are as efficacious in treating tuberculosis as tannin, which reduces fever and stops nausea, diarrhea, expectoration and hemoptysis. It may even combat the tendency to softening and extension of the tubercular process, which would otherwise result. It has been given in some severe cases with excellent results. It is, however, difficult to give in sufficiently large doses, since even one gram daily easily upsets the stomach. It may be administered with creosote, phosphates, quinine, iron, wine, etc. Tannicol, tannalbin and tannigen are less irritating, since they are only broken up in the intestines. By varying these preparations Plicque reports good results. [M. O.]

October 18, 1902. (Vol. II, No. 84.)

1. Variations in the Alkalinity of the Blood.

MARCEL LABBE.

2. The Electrical Installation in the Clermont-Ferrand Medical School. MALLY.

1.—To estimate the alkalinity of the blood it is necessary to use a titrated acid solution, in the presence of a coloring reagent which acts as indicator. Three methods are described in full. In figures, the alkalinity of 100 cc. of blood varies from 182 to 800 mg. of sodium, according to different investigators. Following the ingestion of acids or alkalis, and with certain diseases, this varies. It is diminished in nephritis, malaria, cancer, uremia, jaundice, Addison's disease, leukemia, anemia, gout, diabetes, etc. It is increased in gastric disturbances, typhoid fever, early in tuberculosis, etc. It bears no relation to the occurrence of leukocytosis. The examination of the blood for alkalinity is as yet of no practical value. [M. O.]

2.—The medical school at Clermont-Ferrand, France, has superb electrical appliances, because the trolley company furnishes the power. This is used for radiography, for warming and drying, and in the treatment of skin and nervous diseases. The complicated installation is well described. [M. O.]

THE SCOTTISH MEDICAL JOURNAL.

November, 1902. (Vol. XI, No. 5.)

1. Paget-Virchow-Levret, and the Priceless Power of Keeping a Foreign Language; an Introductory Lecture. Prof. A. R. SIMPSON.

2. X-Rays as a Diagnostic Agent in Phthisis Pulmonalis.

F. GARDINER.

3. The Ophthalmia of Newly-Born Children.

LESLIE BUCHANAN.

2.—Gardiner, by his experiments on phthisis pulmonalis, has found that in the early stage of this disease the results were very gratifying, and the X-rays revealed the condition before ordinary physical methods gave any definite information. Some of the points noted in the early stages were loss of normal translucency due to infiltration, not merely congestive. In older persons the lungs are not so clear as in the younger, and naturally in a muscular individual the rays pass less readily, consequently allowances have to be made in these cases. The significance of a faint loss of translucency is undoubtedly difficult to determine, and here experience coupled with a prolonged, careful, and if necessary, repeated examination, is the only safeguard. Alterations in the shape of the chest are more readily determined by this method. Impairment of the diaphragmatic movement is a very important sign and one of the first to be noted. Emphysema gives increased clearness and is very often at the lower part of the chest. Pleurisy, when acute, is only faintly seen, but when chronic gives a homogeneous shadow quite distinct from the mottled character of the phthisical shadow. Pleuritic effusion can be very well observed and its upper margin demarcated. [T. M. T.]

3.—Buchanan says that a larger future awaits prevention rather than treatment in regard to ophthalmia of

newly-born children. He advises the cleansing of the maternal parts before and even during labor by flushing with warm antiseptic solutions. In regard to the eyes of the infants, the regular instillation of silver nitrate solution ($\frac{1}{2}$ per cent.) into each eye of every child born may be the cause of the diminution of cases of this disease. He also recommends for infants suffering from a slight form of catarrhal ophthalmia with but little discharge about the first week of life, a simple antiseptic lotion and ointment, yellow oxide of mercury, four grains to the ounce.

[T. M. T.]

THE GLASGOW MEDICAL JOURNAL.

October, 1902. (Vol. LVIII, No. 4.)

1. A Clinical Study of Diplopia.

FREELAND FERGUS.

2. On Removal of the Superior Row of Carpal Bones in Acute Septic Disease of the Wrist Joint.

ALEX MACLENNAN.

3. Ethyl Chloride as a General Anesthetic. J. ADAM.

4. A Case of Double Empyema Following on Double Pneumonia. S. GARREY.

1.—Fergus, in his article on a clinical study of diplopia, mentions the following facts: (1) When the diplopia is crossed, there is, except in very special cases, divergence; when it is homonymous, there is convergence. (2) The diplopia is homonymous, and the apparent distance between the true and the false images appears to increase, when the candle is carried toward the side of the paralyzed muscle. (3) In paralysis of an external rectus muscle, the diplopia is homonymous, and the head is rotated toward the side of the paralyzed muscle. (4) In paralysis of the superior oblique, the diplopia is chiefly vertical, the distance between the true and the false images increases as the test object is moved downward, the images are homonymous, and the top of the false image is inclined toward the true one. (5) In paralysis of an internal rectus the diplopia is crossed, the images are on the same level or nearly so, the distance between them increases as the test object is carried from the median line toward the healthy side, and the patient rotates his chin to this side so as to diminish or get rid of the diplopia. (6) In paralysis of the superior rectus the diplopia is vertical, it is slightly crossed, and the upper part of the false image is directed away from the true one. (7) In paralysis of the inferior rectus the diplopia is vertical. The images are slightly crossed, and the top of the false image points toward the true one. [T. M. T.]

2.—MacLennan says that the necessity for operation depends upon the stage of the disease. Removal of these bones reduces the likelihood of pyemia, which is not such a remote sequel to sepsis of the wrist joint. Once the cartilage has disappeared from the bones, pain becomes a most distressing feature, and the smallest movement gives rise to discomfort. To avoid bony ankylosis, the removal of the bones from the wrist is the most efficient means available. The removal of the bones, in hastening the process of repair, gives a joint which may be used sooner. The deformity consequent upon resection of the wrist joint for tubercular disease is its worst feature, and, though flexion of the wrist follows here to a certain extent, it does not interfere with the utility of the hand, nor is it unsightly. Subsequent operation for the restoration of function leaves much to be desired, and there is a wide field open to surgery of the experimental variety. The removal of the bones is an easy thing in itself; the only difficulty met with is in the attachment of the capsule to the dorsum of the scaphoid. [T. M. T.]

3.—Adam, in his experiments with ethyl chloride as a general anesthetic, has found that this method of anesthesia is as safe as that by nitrous oxide; that it is swifter in action; that, involving much less apparatus, it is more convenient and handy; that it may be useful for rather

a wider range of cases in consequence of the longer anesthesia produced. [T. M. T.]

November, 1902. (Vol. LVIII, No. 5.)

1. The Value of Rest as Effected by Operation in the Treatment of Certain Diseases of the Alimentary Canal. A. E. MAYLARD.
2. Recent Electrotherapeutic Work in Medicine and Surgery. JOHN MACINTYRE.
3. A Case of Pericardio-Mediastinitis, associated with Tubercular Peritonitis and Ascites.
JOHN LINDSAY STEVEN.
4. A Case of Chylous Urine and a Case of Blue Urine.
R. STOCKMAN.
5. Note on an Operation to Correct Undue Prominence of the Ears. ALEX. MacLENNAN.

1.—Maylard's conclusions regarding the employment of rest as surgically effected in certain diseases of the stomach are as follows: (1) In all cases manifesting any unduly prolonged vagueness of the symptoms and in which no permanent good is obtained by ordinary remedial measures; (2) intractable cases of hyperchlorhydria; (3) in all cases of chronic gastric ulcer; (4) in almost all cases of chronic gastric catarrh; (5) in all inexplicable cases of gastric dilation; (6) in cases of pyloric obstruction; (7) in cases of recurrent gastric hemorrhage from whatever cause; (8) in cases of acute gastric dilation. The methods by which rest can be efficiently obtained for the different regions of the alimentary canal when affected with certain intractable diseases or particular gross lesions are: (1) The esophagus is given rest by the performance of a gastrostomy; the gastric fistula is one which will close at any time when it is deemed advisable that it should do so; (2) the stomach by the performance of a gastrojejunostomy; the gastrojejunal fistula subsequently either closes or remains open according to the patency of the pyloric orifice; (3) the colon is given rest by the temporary formation of an artificial anus in the right iliac region; (4) the rectum by the establishment of a temporary artificial anus in the left iliac region. In both of these last instances the artificial orifice can be closed when this is considered needful. [T. M. T.]

2.—Macintyre, in his clinical results, states that in lupus the results so far obtained show that we now possess new and efficient agents in combating the results of this affection. In rodent ulcer we can expect as satisfactory results as in lupus. In malignant disease the accumulative evidence of the past year seems to be such as to justify us in being somewhat more hopeful. These malignant cases might be classified, as far as treatment goes, into: (1) Those in which the results have been a complete disappearance of the tumor (very few in number); (2) cases in which no cure was expected, or if expected, was not obtained; (3) cases in which, after a fair trial of one or all of the methods, no benefit was obtained. [T. M. T.]

THE EDINBURGH MEDICAL JOURNAL.

November, 1902. (Vol. XII, No. 5.)

1. The Nervous Affections of the Heart.
G. A. GIBSON.
2. Some Points on the Etiology of Tuberculosis.
ARTHUR LATHAM.
3. The Causation of the Crescendo Murmur of Mitral Stenosis: A Reply. BROCKBANK.
4. Edinburgh Graduates (Boer and Briton) in South Africa. C. E. DOUGLAS.

1.—To be abstracted when concluded.

2.—Latham sums up his paper as follows: (1) Hereditary tuberculosis is so rare as to be a negligible factor; (2) it is proved that tuberculous parents hand down to their children tissues which are especially susceptible to tuberculosis; (3) tuberculosis always results from a pre-existing case of the disease, and the bacilli are conveyed by the mouth spray; by the expectoration or other discharge, and by means of food stuffs, more especially milk; (4) it is improbable that infection often takes place from air respired through the nasal passages; (5) the tubercle bacilli, whether the infection is through the air or food, enter the new host by the mouth in the majority of cases; (6) the bacilli may then be destroyed by the natural defensive actions of the body in the respiratory and alimentary tracts, or they may pass into various parts of the body in the following ways: (a) By direct inhalation into the alveoli of the lungs; (b) by being brought in contact with

the mucous membrane of the parts common to the respiratory and alimentary tracts, such as the tonsils, and then by passing through these mucous membranes, either with or without local changes, to the lymphatic vessels, and so to the cervical, tracheal, bronchial or other glands. From these glands the bacilli pass either: (1) By direct continuity; (2) by the lymphatic vessels to neighboring glands; (3) by some mechanism against the lymphatic stream; (4) by the bloodserum, owing to direct ulceration into the bloodvessel; (c) by being carried to the stomach and intestines; (7) the spread of tuberculosis within the human body is not by the bloodstream, save when generalized miliary tuberculosis is found; (8) the spread of tuberculosis within the human body is by the lymphatic vessels and lymphatic lacunæ. [T. M. T.]

3.—Brockbank's theory of the causation of the crescendo murmur of mitral stenosis is as follows: The murmur is caused because of the thickened, stiffened, distorted and less mobile curtains of the valve which require more force to close than the normal mobile curtains do, and hence they cannot be floated into position to close the valve at the onset of ventricular contraction, as they can and are when normal. During the development of this normal amount of force, which is necessary to obliterate the stenosed valve orifice, some blood regurgitates back into the auricle from the ventricle under the action of the rising intraventricular bloodpressure, and creates a murmur of regurgitation which is cut off suddenly when the ventricle has put sufficient power into its contraction to force the rigid valve to close. The fact that blood escapes back through the valve whilst it is being closed is the reason why the murmur has always imparted to it the peculiar characteristic of ascending pitch. The crescendo character is gained by the blood being forced back through the closing valve by a crescendo power, namely: The gathering force of the commencing ventricular systole, and the accentuated first sound is caused by the forcible impact of the coapting portions of the thickened, hardened valve-curtains. The three characteristics of the murmur are: (1) Ascending pitch; (2) crescendo force; (3) abrupt termination by an accentuated first sound of the heart when at its highest pitch and greatest vigor. [T. M. T.]

THE DUBLIN JOURNAL OF MEDICAL SCIENCE.

November, 1902. (Third Series, No. 371.)

1. Diabetes Insipidus, with Suicidal Impulses, Greatly Relieved and Partially Cured by Hypnotic Suggestion.
JOHN R. O'BRIEN.
2. Suprapubic Prostatectomy. EDWARD H. TAYLOR.
3. Sex, and Its Relation to Evolution.
W. GEOFFREY HARVEY.

1.—O'Brien reports a case of the above condition which seemed to be cured by hypnotic suggestion. He believes that hypnotism is a therapeutic agent of unquestionable value and should definitely take its place in medicine and science as a remedy in many cases of diabetes insipidus. He has concluded, in the light of the supposed pathology of the disease, that it is a vasomotor paralysis of the nerves controlling the renal vessels, and one may surmise that the nervous system readily responds to suggestion.

[T. M. T.]

2.—Taylor concludes his article as follows: (1) It is an operation from which good results may be expected in suitable cases; (2) it is doubtful if the operation should, as a rule, be attempted in very old men if their vital powers have reached a low ebb, and in whom it is probable that there is grave organic renal disease associated with chronic cystitis of long standing; (3) in absence of severe cystitis, provided the patient's general health is fairly good, the suprapubic operation which the author describes may be employed without obvious risk; (4) in prostatectomy, as in other operations of an extensive character, it is desirable that the various steps of the procedure be carried out in as expeditious a manner as possible, consistent, of course, with safety and efficiency; (5) suprapubic prostatectomy, as practised at the present day, aims at enucleation of encapsulated growths and meets all the requirements of the case. [T. M. T.]

3.—Harvey says the conclusions to be drawn from observations and experiments are that females are produced in excess (1) when the fertilized ovum is exposed to favorable conditions of temperature and is amply supplied with food; (2) when the sperm fertilizes an ovum which has just arrived at maturity. [T. M. T.]

Society Report.

NEW YORK OBSTETRICAL SOCIETY.

Meeting held November 11, the president, Dr. E. H. Grandin, in the chair.

Dr. G. G. Ward, Jr. presented a specimen consisting of 7 inches of small intestine, which he had successfully resected with the aid of **O'Hara's forceps** for constriction of the intestines, complicating the removal of a tubo-ovarian abscess with appendicitis. He noted the following advantages: Only one pair of forceps was required; no other ligating or clamping of the bowel was necessary; there was no manipulation inside of the bowel; he had perfect control of the work; and the method is very simple. Dr. Ward also presented **multiple uterine fibromyomata**, removed from a patient prepared for the complete prolapsus operation. Under anesthesia the tumors were found, with an elongated cervix, supravaginal hysterectomy was performed, and the cervical stump was sewed to the abdominal wall. A posterior colporrhaphy and perineorrhaphy was performed 2 weeks later. The tumors were suppurating, and the thickened peritoneum showed chronic peritonitis.

Dr. H. N. Vineberg presented a **teratoma**, impacted in the pelvis, simulating pelvic abscess of puerperal origin, removed from a patient who had had normal labor and puerperium 4 weeks before. Pain, fever and symptoms of pelvic abscess began 4 days previously, for which curettage had been performed. A fluctuating tumor, adherent to the posterior surface of the enlarged uterus, so completely filled the pelvis that pressure symptoms from the rectum and bladder were present. Incision through the posterior fornix revealed pus, a mass of hair and debris. Removal of the tumor, 2 days later, showed that it affected the right ovary, the pedicle having undergone 2 complete twists. The patient recovered. Dr. Vineberg also presented a specimen removed from a patient, 37 years old, sick 3 weeks with pain, fever and loss of flesh and strength. Menstruation had been absent 2 months. In the pelvis there was a mass firmly fixed to the posterior surface of the enlarged uterus. The cervix presented upon its anterior lip 3 large irregular ulcers, moderately deep and covered with grayish exudate. There was no induration, friability or tendency to bleed. The diagnosis of **tuberculous ulceration** with probable disease of the adnexa was confirmed by microscopical examination. The patient lived 6 hours after hysterectomy. The interior of the uterus showed diffuse tuberculous inflammation. Both tubes were abscess sacs, the pus containing tubercle bacilli.

Dr. J. D. Bissell described a **procedure for insuring sterility in Cesarean section**, which he has performed once. It consisted in dissecting the uterine end of the tube from the cornu, the raw surfaces of which were sewed together with catgut. The ends of the tubes, which had been ligated $\frac{1}{4}$ -inch from their uterine ends, were then anchored at the bottom of the raw surfaces of the broad ligaments and its edges were stitched together.

Dr. J. C. Edgar presented a report of 2 cases, one of **persistent right mentoposterior position** in a macerated fetus; the other, of **persistent right occipitoposterior position** in a premature fetus. Secondary inertia was treated with **rest and strychnine**, given to the physiological limit, with anterior rotation and spontaneous delivery. Tracings of the mouldings of the fetal head and photographs of the head in different positions, at the vulvar orifice, were shown. Dr. Charles Jewett believed strychnine to be a good adjunct to obstetric practice.

Dr. H. C. Coe presented a **modification of the Voorhis bag for dilating the cervix** which, when distended, presented the form of 2 cones with their apices connected by a tube 2 inches long and one inch in diameter. He considered its advantages to be thorough dilatation of the lower uterine segment without rupture of the membranes; accompanying dilatation of the cervical canal and os externum; and immobility of the bag, which cannot slip into the uterus. He referred to a case in which dilatation was so far completed manually in 5 minutes that difficult extraction was successfully performed, without uterine contraction before or during labor, a not uncommon experience if the membranes were kept intact.

Dr. W. S. Stone read a paper entitled **some cases of puerperal sepsis and their treatment**, noting his experience with

27 cases. Nine case-histories were related in detail, with the pathological and bacteriological reports of 3 autopsies. Sixteen were examples of septic intoxication, 8 of septice-mia, one of pyemia and 2 of double origin. With the exception of putrid uterine contents, appreciable lesions of the pelvis were frequently absent. Distinct evidence of the effect of septic poisons upon the kidneys was constant. A similarity in some cases of eclampsia to septic intoxication was noted. Lesions in the lungs were frequent, the chief characteristic being variability. In some cases there was marked destruction of the red cells and hemoglobin. As preventive treatment, a more general use of rubber gloves was recommended. Aseptic rather than antiseptic methods in local treatment are preferred. Intra-uterine exploration, usually under anesthesia, and cleansing the interior of the uterus are urged at the beginning of treatment, unless there are infected wounds of the vagina or cervix. Subsequent intra-uterine douching was rarely necessary. Special attention was directed to forced feeding, stimulation, iron and fresh air. The successful outcome of many apparently hopeless cases should make one carefully deliberate before adopting operative procedures; although the results of the autopsies in 2 cases showed that a hysterectomy would have been indicated if there had been an early appreciation of the pathological condition. Dr. Jewett had used gloves in obstetrical work for years, but was unprepared to say whether he had better results with or without them. Care must be used in making examinations, and great pains must be taken to see that the gloves are thoroughly boiled. Rubber gloves found their best use in obstetrical practice. Dr. G. L. Brodhead thought that the most important point was the preventive treatment. An important point was the removal of hair from the vulva. He thought rubber gloves should be worn in all operations upon septic patients or those who might possibly be septic; and in all cases immediately following septic operations. Dr. W. R. Pryor considered cases not septic unless pathogenic bacteria were found in the uterus. This is important in the treatment, as curettage in septic cases caused a mortality of from 22% to 50%. Dr. G. T. Harrison spoke of the danger of the use of the curette in both septic sapremic and septic cases, and of strong antiseptics in intra-uterine douches. Dr. W. G. Wylie spoke of his success in puerperal sepsis since 1872, by the use of antiseptics, particularly by strong carbolic acid applied to the interior of the uterus and subsequent intra-uterine irrigation with a weaker solution. Dr. R. H. Wylie thought that it would not be wise to dispense with antiseptics entirely.

ARCHIV FUER VERDAUUNGSKRANKHEITEN.

(Vol. VIII., Heft 3.)

1. An Esophagoscope. JULIUS SCHREIBER.
2. An Experimental Contribution Concerning the Pathogenesis of Gastric Ulcer. R. DALLA VEDOVA.
3. On Syphilis of the Liver. MAX EINHORN.
4. Investigations Concerning the Activity of the Albumin-Digesting Power of the Gastric Contents of Normal Persons and of those Suffering from Gastric and Intestinal Disease, with a Critical Comparison of Results Obtained by the Hammerschlag and Mett Methods. RUDOLF SCHORLEMMER.
5. On the Increase of the Vomiting Reflex Caused by Nasal Disease. TREITEL.

1.—Schreiber discusses briefly the history of the esophagoscope, and gives a description of an instrument which he has devised, one of the most important points of this being that it is fitted with a pump for the purpose of removing mucus. [D. L. E.]

2.—To be concluded.

3.—Previously abstracted.

4.—To be concluded.

5.—Treitel insists that in disturbance of the stomach, and particularly of vomiting in neurasthenics, one must pay especial attention to the nose and throat; and, if there is reflex excitability of these parts, there should be not only general, but local treatment—and, if necessary, local operation. He believes that gargling should not be allowed, as it seems to increase the irritability and to increase the tendency to vomiting. He states that taking a mouthful of cold water and holding the head back, without swallowing, greatly decreases this reflex excitability of the pharynx. [D. L. E.]

Special Articles.

THE THERAPEUTIC USES OF ALCOHOL.

The last word as to the good or ill resulting from the therapeutic administration of alcohol is far from being spoken. The question is unfortunately one concerning which scientific reasoning, based upon rational inquiry, has been met with sentimentalities and prejudices arising from the abuse of alcohol as a beverage. In other words, the decision reached by respective writers has been colored to a large extent by the complexion of their views on the temperance question. The use of alcohol as a beverage may be called a sociological question quite apart from the therapeutic employment of alcohol. Granting that alcoholism is a deplorable state produced by the toxic effects of varying amounts of alcohol, it must not be forgotten that too great doses of every potent drug produce poisoning, but that this is no bar to the rational use of these agents in proper doses. The animal thrown into tetanic convulsions by strychnine may, it is true, be taken as a "horrible example" of the deleterious effects of strychnine, but this reasoning scarcely appeals to the clinician who is aware of the excellent effects of that drug in proper dosage in selected cases. No more should the state of the drunkard and the pathological conditions of his organs be used as an argument against our rational use of alcohol.

There has been a great deal of fallacious reasoning employed by both parties to the controversy. Among the illogicalities we may mention that of reasoning from a few particulars to universals. Alcohol, says one writer, was killing a typhoid patient until he ordered its discontinuance, and the patient recovered; *ergo*, he continues, alcohol is distinctly harmful and should not be administered in typhoid fever. Another writer finds that alcohol has benefited a patient or a series of patients suffering from the same disease; therefore he orders its employment in *all* cases of typhoid fever. The November number of the *Practitioner* is devoted to a series of papers upon this question. These contributions illustrate some of the points we have mentioned. Sir Samuel Wilks holds, to our mind, an eminently conservative opinion. He sums up by saying, in answer to the question as to the use of alcohol as a medicine or diet: "I should say it is a most valuable remedy and, if so, necessarily must do harm when injudiciously given. As regards the second part, the value of wine or alcohol as a diet, this is an interesting question from a physiological point of view, but of no practical importance, being outside medical practice, as the masses of people in all countries never consult the doctor on the subject."

The next paper is from the pen of Sir Henry Thompson, who narrates his personal experience with alcohol. He found that by abstaining from alcohol for a period of months he was cured of hemiparesis and rheumatism, and thereafter he became a total abstainer. When he reached the ripe age of

seventy-five he put into practice the old saying that "wine is the milk of old age." He found, however, that this was an "atrocious blunder" in his own case, therefore he proceeds to arrive at the universal conclusion that this is a fallacious notion for all men. This paper affords an example of the difficulty of even a keen intellect in eliminating its own personal views. Probably many another equally eminent and respectable gentleman would argue that wine in his old age helped him, therefore the old saying was a true one and should be followed.

Sir W. H. Broadbent discusses alcohol as a medicine and, agreeing with Sir Samuel Wilks, concedes its value in combating many conditions which are the familiar ones for which alcohol is recommended. Then follows the paper by Dr. G. Sims Woodhead, Notes on the Pathology of Alcoholism. This writer has presented a vivid and interesting picture of the pathological changes found in alcoholics. He dilates upon these, as well as upon the fact that alcoholic subjects are more prone to many diseases, and that, when infected, the mortality-rate in this class of patients is very high. This we concede to be true. The learned writer states that he, himself, is a total abstainer, and his paper conveys clearly the notion that he believes that every one else should agree with him on this point. We are unable to find any argument, however, in Dr. Woodhead's paper against the therapeutic uses of alcohol, with the exception of this statement: "As the outcome of a wide experience there has certainly been a great revulsion against the indiscriminate use of alcohol in cases of typhoid fever, and the same is true of the indiscriminate use of alcohol in pneumonia." Naturally, the "indiscriminate" use of any remedy is to be deplored.

Dr. James Edmonds follows with a paper on Alcoholic Beverages. This is a temperance plea from the pen of one who is connected, as his titles show, with temperance organizations and temperance hospitals. His conclusions are: "Looking back now, after fifty years of active medical work in London, in regard to the recovery of the sick under my care, and in regard to the endurance of my own health, working power and enjoyment of life, I believe that my patients and I have gained everything and lost nothing by my disuse of alcoholic beverages."

Dr. Pearce Gould discusses the use of Alcohol in Surgery. From his large experience he does not believe that alcoholic stimulants are of especial value in the various forms of septic inflammations, nor is he of the opinion that the repair of wounds and the convalescence from severe injuries are aided by alcohol. He further states that a rather large experience in the treatment of all kinds of wounds and injuries, without the use of alcohol, leads him to the conclusion that the drug is of no value for such purposes. Neither does he regard it of especial value in the treatment of shock and collapse or even in the treatment of advanced cases of cancer. Then follows a paper on The Treatment of Dipso-mania and Chronic Alcoholism by Hypnotic Suggestion, by J. Milne Bramwell, which does not concern our subject, as well as the paper by Dr. J. J.

Ridge, on Alcohol from a Sociological Standpoint and the Medical Temperance Movement, which is also quite apart from this discussion.

The whole question of the use of alcohol in therapeutics is a mooted one. It has taken prominence as a political movement, and personal judgment has been influenced even by the religious views of inquirers. This is most unfortunate, for, when a man's political or religious tenets are under discussion, he is not, as a rule, open to logical conviction. Laboratory investigations have resulted in strengthening both sides. There is a lack of unanimity which time alone will clear up. Clinical experience, however, while much may be found *pro* and *con*, is undeniably favorable to the administration of alcohol in selected cases. What we would especially protest against is *either its universal use in diseased states in which its indication is sometimes called for, or its universal abandonment in the same series of cases*. Alcohol may do harm, and indiscriminately administered is undoubtedly followed by untoward effects, but alcohol in numberless instances does good; in other words, properly employed it is an admirable therapeutic agent. This being the case, the scientific spirit of rational medicine does not permit us to discard it entirely, as some extremists would have us do, from the list of drugs at our command.

THE CLIMATE OF PORTO RICO.

VITAL STATISTICS OF THE ISLAND.

By MAJOR GEORGE G. GROFF, U. S. A.,

Late Secretary and Treasurer of the Superior Board of Health of Porto Rico. Professor of Anatomy and Physiology in Bucknell University.

A recent article on the Climate of Porto Rico in the *Philadelphia Medical Journal* (September 6, 1902) calls for some comment. My experience covers two full years on the island.

There is no appearance of a process of acclimatization for a person from the temperate latitude. The heat and humidity of the air are little felt, because of the constant character of the strong trade winds. San Juan is a hot city, because compactly built of brick. At night there is constant radiation of heat from the brick walls, and the mercury remains high in the city while it falls at all places outside. At San Luce, Rio Piedras or Catano, suburbs of San Juan, one needs blankets at night, while in San Juan a sheet is too heavy a cover. The winter climate of Porto Rico is truly delightful, but it is subject to one drawback. Winds from South America occasionally displace the prevailing trades, and they bring a humid heat which is nearly unbearable. In the winter of 1899-1900, in the first week in December and the last week in March, these winds prevailed. The mountains of the interior are cooler than the seacoast, but daily rains produce too much dampness for best conditions of health. There is no jungle on the island. The average rainfall is about 55 inches at San Juan, but varies greatly over the island.

The vital statistics of the island are of little

value, except in showing the death-rate. Native physicians are careless in diagnosis and, while probably nine out of ten persons die without a single visit from a physician, yet a disease is assigned to each death. It is done in this manner: Dead bodies are brought to the cemeteries by carriers, unaccompanied by the family; these carriers may tell the keeper of the cemetery of what disease the person was thought to have died. If they know nothing, the keeper affixes such disease as he thinks proper, and reports same to the municipal physician; the physicians report all statistics gathered in this way to the municipal judge, and the judge reports regularly each month to the Superior Board of Health. It is true that the municipal physician is supposed to inspect each dead body, and so to learn the cause of death, but in practice he does not do so, and the work is done by the keepers of the cemeteries.

There are no diseases in Porto Rico which one from the temperate latitudes need fear. Tuberculosis, tropical anemia and dysentery are prevalent. Tuberculosis will necessarily prevail so long as the poor are in a state of chronic starvation and live in damp and dirty hovels, which at night are as nearly as possible hermetically sealed. This closing of rooms at night prevails among all classes. The areas of dysentery are localized, and the disease is uncomplicated by abscesses, such as prevail in India and Africa.

The anemia caused by the *ankylostoma duodenale* is well-nigh universal among the poor, and in the two years following the occupation of the island by Americans it was the largest factor in causing deaths. Scarlet fever is said to be unknown on the island. Native physicians say that pneumonia never kills, and that typhoid fever does not exist on the island. Malarial fevers are rare. Yellow fever has not been present for the past ten years. Elephantiasis is common, but localized in certain places. There are in all probability 30 lepers on the island, and the disease shows no tendency to spread. Diphtheria is present, but has not been seen in a malignant form. Tetanus causes many deaths, mainly of the newborn through infection of the navel. Smallpox has prevailed in the past from carelessness of the people in reference to vaccination and lack of any fear of the disease. All Americans in time contract dengue, but it is soon recovered from. At Coamo are hot springs said closely to resemble those at Little Rock, Arkansas, in their medicinal properties.

The first thing the people of Porto Rico need is liberal instruction in the principles of sanitation. All American officers in the army were impressed with the starved appearance of the poor. Rice, codfish, bananas and various roots and wild fruits constitute the food of these people. Among them cooking and a balanced ration are practically unknown. There is no variety in their food, and the amount is so miserably small that well-developed bodies are seldom seen, and laborers are unable to work more than half the week. They are not an indolent

people, but are underfed. The anemia is spread by eating with soil-stained fingers.

The people are industrious, honest, intelligent, affectionate in their families, very temperate in all their habits, law-abiding and proud of their American citizenship.

JOURNAL DES PRATICIENS.

October 11, 1902. (16me. Année, No. 41.)

1. The Treatment of Simple Rheumatic Endocarditis.

HENRI HUCHARD.

2. The Diagnosis and Nature of Eczema. BROCCQ.

1.—Sodium salicylate prevents the occurrence of **endocarditis in rheumatism**. It should, therefore, be given early and should be continued a week or two after the disappearance of articular symptoms. The alkaline treatment, mercury, bromides, opium and many other drugs, and venesection, scarification, cold applications, etc., are both useless and harmful in most cases. But mineral waters, potassium iodide, hygiene, diet, digitalis and quinine hydrobromate are advised, beside the salicylates. Venesection or blisters may be of value when cardiac complications arise. [M. O.]

2.—In diagnosing **eczema**, it should be distinguished from impetigo, ecthyma, folliculitis, lichen, prurigo, seborrhea and herpes. Brocq believes that eczema is not a disease, but simply a peculiar reaction of the skin, caused by internal or external intoxication in subjects predisposed to it by the diatheses, nervous heredity, etc. Eczema is not contagious, but both internal and external treatments are needed for curing the condition. [M. O.]

October 18, 1902. (16me. Année, No. 42.)

1. Stenosis of the Pylorus. CHAUFFARD.
2. Kinesitherapy in Valvular Heart Disease. KRIKORS.
3. Hysteria. BABINSKI.
4. Ablation of Malignant Tumors of the Breast.

LUCAS-CHAMPIONNIERE.

1.—In adults **pyloric stenosis** may be fibrous, cancerous or spasmodic. Chauffard reports in detail the case-histories of 4 patients with the different varieties of pyloric stenosis. For the fibrous cicatricial stenosis, gastro-enterostomy was performed, while no operation was done in the other cases, death occurring in that of cancer, recovery in the patients with spasmodic stenosis. Resection of the pylorus is indicated for cancerous stenosis, since it is not so serious as gastro-enterostomy. [M. O.]

2.—Krikors considers passive and active motion, massage and respiratory movements of value in the treatment of valvular heart disease. Passive movements are sedative. Active movements are indicated in hyposystole, but are not well borne by neurotic individuals. Since they increase the heart's action, active movements are generally bad for patients with valvular heart disease. Respiratory movements increase arterial pressure at the end of inspiration, and decrease it at the end of expiration. The indications for this **kinesitherapy** are given. [M. O.]

3.—**Hysteria** is a psychical state characterized by an essential peculiarity, autosuggestion. After reporting several cases, showing the value of hypnotism in the treatment of hysteria, Babinski presented a patient with hysteria and peripheral neuritis. [M. O.]

4.—Out of 156 operations for **removal of the breast for malignant tumors**, but 4 patients died. But recurrence was commonly observed. In the operation all affected lymphglands must be removed with the diseased breast. The technique of Lucas-Championnière follows in full.

[M. O.]

Original Articles.

CHOLELITHIASIS.*

By JOHN B. DEEVER, M. D.,
of Philadelphia.

The gall-bladder in man lies beneath the right lobe of the liver, pear-like in shape and, from its dependent position, favoring defective drainage. Except as a reservoir for bile it has no apparent use or function and when removed gives rise to no consequences whatever.

Its presence in the lower animals is subject to great variation. Most fish have gall-bladders, the mackerel, however, having none. It is absent in rodents, also in the camel, deer, elephant and horse, though the latter has a dilation in the duct between the liver and intestine. The cuckoo, ostrich and many of the parrots are devoid of a gall-bladder. It may be absent in man, about fifteen such cases having been reported. This variation and inconstancy would seem to show its lack of importance in the human economy.

The gall-bladder is in relation with the hepatic flexure of the colon, the pylorus, the duodenum, the anterior abdominal wall and sometimes the great omentum. It is lined by a mucous membrane richly secreting mucus and which is thrown into minute folds, giving it a reticulated surface. The bloodvessels, lymphatics and the nerves form networks within the mucosa. The membrane at the cystic duct assumes a spiral form.

The secreting hepatic cells are transformed into epithelium at the margin of the lobule and emerging at the periphery pass into the interlobular connective tissue and by repeated union the hepatic duct is finally formed, which unites with the cystic to form the common duct. The common bile-duct passes between the layers of the gastrohepatic omentum, and behind the first part of the duodenum; it joins the duct of the pancreas and, after running together for three-quarters of an inch, they empty into the posterior surface of the duodenum about three inches from the pylorus by a single opening barely admitting a probe. Bile is secreted by the liver cells and passes through the ducts into the duodenum under low pressure. During periods of digestive repose it is forced into the gall-bladder and flows out again when digestion is resumed.

Bile contains from 1 to 2 per cent. of bile acids which hold in solution considerable quantities of cholesterin. Cholesterin is a monatomic alcohol and is present in the bile contained in the gall-bladder in from 0.1 to 1 per cent., and this is not increased when it is introduced into the organism experimentally.

Cholesterin is very widely distributed in the body. There is no proof that it is a product of hepatic metabolism, but it is probably eliminated by the epithelium of the bile-ducts and gall-bladder. It is found in large amounts in fatty degeneration of the spleen, kidney, etc., in tubercular tissue, car-

*Read before the Philadelphia County Medical Society, November 12, 1902.

cinoma and sarcoma, and especially in infectious inflammation of both mucous and serous surfaces. It may contribute 7 per cent. of the total solids of pus. If, from causes inducing stasis, the cholesterin becomes more concentrated, one of the factors in the formation of a gall-stone is supplied. If a catarrhal inflammation of the gall-bladder takes place with the formation of an albuminous constituent from degenerated mucus and epithelial cells, with precipitation of the cholesterin and the production of bile salts, especially calcium bilirubinate, then the other factor is furnished and a gall-stone is produced. We are thus led to the subject of cholelithiasis after this short discussion of some highly interesting problems.

Gall-stones are very prevalent, and post mortem records in Europe prove them to be present in from 5 to 10 per cent. of all Europeans, though, of course, only a very small percentage of these suffer any pain at all. Kehr states that about 5 per cent. of gall-stone subjects suffer symptoms.

Among the etiological factors, heredity and occupation have little, if any, influence on gall-stone formation, though it is often stated that a sedentary habit is a factor.

Gall-stones are rare under thirty years of age, though in a paper by Still four cases are reported, and twenty cases in all collected from the literature of gall-stones occurring in young children. Schroeder places the percentage of persons under thirty at between 2 and 3 per cent. The aged are more prone to gall-stone formation, owing to the retardation of the bile flow and perhaps the tendency toward calcareous degeneration to which the tissues of the old are susceptible.

Females are affected four or five times more often than men. This has been ascribed to pregnancy, corset wearing and the greater tendency of the sex toward ptosis, especially of the kidney. Naunyn's statement that "there is no indication that the influence of food or metabolism come into play as causes of gall-stone formation" has not yet been disproven.

Some poisons, such as phosphorus, have an irritant action on the biliary passages and produce a congestion of their mucous membranes; but whether food products can also cause irritation of the ducts and so furnish a field for bacterial infection, has not yet been shown, at least so far as the writer has been able to find. Several theories relative to the amount of nitrogenous food ingested have been advanced but not proven.

This brings us to the most promising theory of gall-stone formation and one that has been proven in numerous cases, viz., bacterial infection. It has been stated that under favorable conditions there occurs a precipitation of cholesterin and a formation of bilirubin calcium and that a catarrhal condition of the mucous membrane with desquamation of its epithelium is the factor favoring these precipitations.

The catarrhal cholecystitis is due to an invasion of the gall-bladder by bacteria, notably by the colon bacillus; the virulence of the infection deciding the extent of the cholecystitis.

The theory of microbic origin of gall-stones was advanced as early as 1886, but Gilbert was the first to demonstrate their presence satisfactorily. At the Wiesbaden Congress, Naunyn accepted the bacterial origin of biliary infections, and since that time numerous interesting observations have been published bearing on this subject. In 1897 Mignot, Gilbert and Fournier produced gall-stones experimentally by inoculation with the bacillus coli communis and a few months later with the bacillus of typhoid fever. The last-named writers divide cholelithiasis into two classes; those due to the colon bacillus and those due to the typhoid bacillus infections.

If, then, certain conditions are favorable, such as biliary stasis or a congestion of the mucous membrane of the gall-ducts, the colon bacillus will ascend the ducts, inducing a cholecystitis and aiding in the formation of gall-stones. Some form of irritation must be present, however. The mere presence of bacteria in the bile is not sufficient to cause lithiasis, because they may be retained for some time, as Blachstein and Welch observed some years ago, without inducing any inflammation of the mucosa.

Welch also demonstrated the presence of the colon bacillus in the interior of gall-stones, and Lartigan found this organism in 25 per cent. of the stones which he examined. The typhoid bacillus is not met with so frequently, but has been sufficiently demonstrated as a cause of gall-stones. Cushing, in 1898, found that ten out of thirty-one cases of cholelithiasis in Halstead's clinic gave a history of enteric fever, he also suggests that the bacillus may remain alive for sometime in the gall-bladder until some reaction causes agglutination when they form a clump about which the cholesterin and bile salts are deposited.

The bacilli are usually found in clumps, a gigantic Widal reaction seeming to have taken place, as Richardson remarks.

Chiari had previously, in 1893, found the typhoid bacillus in the gall-bladder of nineteen out of twenty-one cases of typhoid fever coming to autopsy, and in these positive cases the walls of the gall-bladder in thirteen showed evidence of inflammation. Granting that a bacterial infection follows some irritation of the mucosa of the gall-bladder, then cholesterin is precipitated and bilirubin calcium formed from degenerated epithelium and mucus, and these, depositing about a clump of bacilli, form a gall-stone.

The number of stones found may vary from one to several thousand, and in size they may be barely perceptible or as large as a lemon. In a case reported by Richter the stone weighed somewhat over 100 grams. When the stones are numerous they are polygonal in shape with smooth facets at their junction with each other and are about the same size. At times five or six well-formed concretions may be found, quite round and with a mulberry appearance. In consistency they may be soft and putty-like, crumbling under the touch, or firm and, when fractured, presenting a crystalline appearance. In some instances they are as hard as the lithic

acid vesical stone. The usual color is a dirty brown. The greater portion of the stone, about 75 per cent., consists of cholesterin, but bile salts, bile pigment, mucus and epithelium may enter into the composition. The outer layer of the stone is usually harder and contains more of the lime salts. Sometimes a pure cholesterin stone is found.

When gall-stones have formed in the gall-bladder they do not constitute a serious disease, unless symptoms of cholecystitis supervene. It has often been shown at post mortem that stones existed without ever having given the individual any discomfort during life. Kehr states that not more than one in twenty of those having gall-stones suffer any inconvenience from their presence. But tissue which has once been the subject of inflammation, however mild, and in which there is the additional trauma of the presence of gall-stones, will furnish a fertile soil for the culture of bacteria.

A slight infection of the gall-bladder may quickly subside, leaving the means for gall-stone formation behind it, and should a re-infection take place with the colon bacillus, for instance, an acute cholecystitis with gall-stones results. The mucous membrane becomes softened and congested, there is a free secretion of mucus, and purulent fluid may form. The inflammatory process may force a stone into the cystic duct and obstruct that channel, and if the cholecystitis subsides and the stone remains blocking the duct, a hydrops of the gall-bladder may follow from accumulation of mucus.

In other cases there is no passage of stones into the cystic duct, but the infection, if virulent, progresses to purulent or gangrenous cholecystitis with a tense, distended gall-bladder filled with pus and bile and with extensive ulceration of the mucous membrane. In milder infections the inflammatory symptoms may subside into a period of latency, the bile once more flowing in and out of the gall-bladder and the stones resting quietly, giving no symptoms. But frequently during attacks of cholecystitis the inflammatory process extends through the coats of the gall-bladder and gives rise to adhesions to the liver, colon, stomach, duodenum or omentum which cause vague pains and gastro-intestinal disturbances after the attack has passed.

Recurring attacks of inflammation in the gall-bladder will gradually thicken its walls and lead to shrinkage of the organ with perhaps strictures or contortions. The mucosa shows signs of chronic degeneration, with round celled infiltration giving place to connective tissue proliferation and hypertrophy of the muscular coat.

During an attack of acute cholecystitis the stone may be driven through the cystic and into the common duct, where it may lodge or pass on down the duct and, if small enough, escape into the duodenum, or, what is more likely to happen, become impacted in the common duct near its orifice. If the stone lodges, it is apt to enlarge from the continual precipitation of cholesterin and may completely obstruct the common duct. In this case the common and the hepatic ducts dilate, and jaundice is a rapid result with the other symptoms of cholemia.

The walls of the duct at the point of impaction may ulcerate and the stone escape into a neighboring viscus which has become adherent. In some instances only partial obstruction takes place and the bile escapes, to some extent, around the stone. In this case chronic obstruction of the duct follows.

If the infection ascends the hepatic ducts, a cholangitis results with infection of the liver and, in severe cases, abscess formation. Stones are rarely found in the hepatic duct, but when present cause grave symptoms. As a rule, the smaller ducts escape infection from their better drainage, but sometimes, after acute cholangitis, a chronic condition persists with secretion of a thick, ropy mucus which may cause symptoms exactly similar to the passage of a gall-stone.

In discussing the symptoms of cholelithiasis we must repeat that stones may exist in the gall-bladder without giving rise to any symptoms whatsoever so long as the ducts are free. In other cases, vague gastric symptoms with epigastric discomfort and a feeling of depression or of slightly defined pains over the right side of the abdomen increased by "straightening up" may be the only symptoms. Jaundice is absent and the liver is not enlarged. There may be some tenderness over the gall-bladder. Such a history may be obtained when stones are present in the gall-bladder with clear ducts and without much disease of the bladder walls. If infection is present, it is latent.

If an attack of acute cholecystitis supervenes, pain becomes at once a prominent symptom. It may be paroxysmal in character, but usually lasts for hours or days and, beginning over the gall-bladder, is referred to the right breast or right shoulder. Nausea and vomiting precede or rapidly follow the colic. The right rectus is rigid and constipation is the rule. Jaundice is not observed unless cholangitis or stone in the common duct or hepatic duct or a markedly catarrhal condition at the duodenal orifice is present. Palpation will reveal the gall-bladder as a tense, rounded and very tender tumor beneath the rib margin, moving with each respiration. Local peritonitis is a certain result from the extension of the inflammation through the walls of the gall-bladder and may complicate the diagnosis by causing marked and general rigidity.

Occasionally a tongue-like enlargement of the right lobe of the liver may be observed. This is Riedel's lobe. Should this acute attack subside, the gall-bladder will be left thickened and surrounded by adhesions with symptoms depending upon the nature and position of these adhesions. In the gall-bladder so affected future attacks of cholecystitis become more and more difficult to diagnose, unless a clear previous history can be obtained. The gall-bladder does not then present the rounded tumor moving with respiration nor is the colic so severe, but with the history of the previous attacks, with probably a dilated stomach and the nature and position of the colicky pain, a diagnosis may be made.

In a case of acute cholecystitis with gall-stones which becomes suppurative the condition is more

serious. With empyema we have the usual history of gall-stone attacks followed by a tender, rounded swelling making its appearance and with the pain becoming more continuous; the right rectus becomes rigid; there are few constitutional symptoms early, but later the usual manifestations of sepsis appear, rigors or chills with fever. There is no jaundice unless there is an associated catarrh of the bile-ducts. Empyema always causes a pericholecystitis which will give the symptoms of local peritonitis. Perforation with abscess formation is not uncommon, and the pus usually travels along the course of the suspensory ligament to the umbilicus. It may point down alongside the colon toward the right iliac fossa or form a mass over the gall-bladder and ulcerate through the abdominal wall. Sometimes ulceration takes place into the duodenum, colon, stomach, portal vein, vena cava, etc.

Hydrops of the gall-bladder due to chronic obstruction of the cystic duct presents but few symptoms. Palpation detects a rounded, smooth tumor which is quite painless, as a rule, and when depressed into the abdomen will return immediately. It has been mistaken for a right-sided ovarian cyst or a floating kidney. Jaundice is not present.

When acute inflammation of the gall-bladder forces a stone into the cystic duct, the gall-bladder enlarges and is quite painful, and the symptoms of acute cholecystitis are augmented by the pain caused by the passage of the stone through the inflamed and spiral cystic duct. It is in acute obstruction of the common duct, however, that the classical symptoms of gall-stone colic are seen. The attack sets in suddenly, as a rule, with intense, agonizing pain in the right hypochondriac region and radiating to the shoulder, though it may radiate downward to the sacral region. Some patients complain of pain across the back. Persistent vomiting is associated, often fever and a sensation of chilliness. In severe attacks the patient completely collapses with sweating and a cold clammy skin. With the passage of the stone into the duodenum there is an immediate cessation of symptoms.

Should the stone become impacted in the duct, jaundice rapidly follows with the usual yellow skin and dark, bile-stained urine. The feces are the color of pipe clay. Palpation seldom reveals anything, as the cystic duct may be clear, but a large stone in the cystic duct compressing the hepatic may give the symptoms of obstructive jaundice plus those of obstruction of the cystic duct. The liver is not enlarged. There are no septic symptoms unless an ascending infection of the hepatic ducts takes place. The obstruction is freed, either by the onward passage of the stone, by rupture of the duct and fistula formation, or it may become chronic.

In chronic obstruction the duct dilating behind the stone will allow the bile to escape around the obstruction and the jaundice fades, but the stone may pass downward a trifle, and again the symptoms of acute obstruction appear. This chronic obstruction persists for some time with intermittent attacks of pain, fever and jaundice and, unless surgical

intervention takes place, the sufferer becomes a chronic invalid.

When a calculus becomes impacted at the duodenal orifice, there may not only be the symptoms of obstructive jaundice but serious lesions of the pancreas may result. Opie has collected thirty-eight cases in which pancreatic lesions, fat necrosis and cholelithiasis co-existed.

The more remote sequelæ of gall-stones in the common duct are: (1) Ulceration, hemorrhage, perforation or stricture of the duct itself. (2) Local or general peritonitis following rupture. (3) Adhesions to neighboring organs and the formation of a fistula through which the stone discharges. (4) Intestinal obstruction due to (a) the size of the stone, (b) volvulus of the small intestine, (c) adhesions from the gall-bladder region obstructing the lumen of the bowel. (5) Abscess or cirrhosis of the liver. (6) Pancreatitis. (7) Carcinoma of gall-bladder or ducts.

Fistulæ have been observed between the biliary passages and the stomach, duodenum, jejunum, ileum, colon, urinary organs, thorax, abdominal walls and retroperitoneal tissues. In most instances the occurrence of fistula is impossible to diagnose. The passage of a very large stone in the stools would establish a diagnosis of fistula into the alimentary canal. Cases have been reported in which gall-stones have been vomited and these were undoubtedly due to biliary-gastric fistulæ.

In making a differential diagnosis between gall-stone disease and other affections we are often confronted with a difficult and perplexing problem. A surgeon rarely sees the patient during the first attacks, when the gall-bladder is free from adhesions and when secondary gastric or intestinal symptoms are absent.

Appendicitis is frequently confounded with gall-stones accompanied with cholecystitis. With the appendix in the right iliac fossa, the diagnosis can be made by the location of the pain and tenderness, the rigidity of the abdominal wall of the lower right quadrant of the belly, the sudden onset, the absence of chills, as a rule, and the more marked relief obtained by flexion of the right thigh. But in those cases in which the appendix extends upward toward the gall-bladder, and with its tip nearly in contact with it, it may be impossible to make the diagnosis.

Ulcer of the stomach or duodenum may give symptoms simulating gall-stone disease, and more especially when adhesions have formed from the gall-bladder to the pylorus or duodenum. The pain of ulcer is more nearly related to the ingestion of food and is more constant in the epigastric region or radiating to the back and not to the shoulder. The association of chlorosis, increased hydrochloric acid secretion and hematemesis with ulcer should be remembered.

A movable kidney on the right side with its paroxysmal attacks of pain and rounded movable tumor has been mistaken for an enlarged and calculous gall-bladder. This is especially the case when a sufficient degree of hepatoptosis is also present with obstruction to the flow of bile in the common or hepatic ducts and a resulting jaundice.

Steele, in a study of one hundred reported cases

of floating liver, has found that colic-like pains, often accompanied with jaundice and simulating gall-stone attacks, were present in nearly 40 per cent. of the cases.

In the kidney affection the tumor may be repositioned and will remain so with the patient in the recumbent position. The kidney movements are not pendulous in character.

An enlarged gall-bladder has a fixed point from which it moves in the arc of a circle, and even in the recumbent position it will remain immediately behind the abdominal walls. The gall-bladder, moreover, is more tender and harder to the touch than the displaced kidney.

In lead colic, the history of the patient, absolute constipation, the blue line on the gums and the colicky pains centering about the umbilicus should decide the diagnosis.

The gastric crises of locomotor ataxia have been confused with gall-stone disease. The loss of the knee jerk and the ocular palsy are early symptoms in the former disease.

In acute pancreatitis the pain is more sudden in its onset, beginning in the epigastrium and later becoming general. There is marked loss of weight and strength followed by collapse and early symptoms of peritonitis about the pancreas. Chronic pancreatitis often accompanies gall-stones in the common duct, and its diagnosis is not of such great moment because a surgical operation is required for its relief. The pain is less severe and is usually localized to a point one inch above and one inch to the right of the umbilicus.

Intestinal obstruction from mechanical causes may be simulated by a paralysis of the intestine dependent upon a local peritonitis from inflammation of the gall-bladder region. The diagnosis may not be made until the abdomen is opened. A careful history of previous similar attacks, with or without jaundice, the absence of fecal vomiting or visible peristaltic movements and the more constant localization of pain to the right side should help in forming a diagnosis.

In malignant disease with obstruction of the common duct the jaundice is intense and continuous, pain is absent, as a rule, and the gall-bladder is usually distended. As the disease progresses the well-marked cachexia is evident, ascites may develop and a tumor can usually be palpated. The two conditions often co-exist, and in the early stage the diagnosis of malignancy is very difficult to make.

The treatment of gall-stones resolves itself into palliative or medical and radical or surgical.

The medical treatment has been gradually losing ground of late years. This is due to the want of success in finding a drug which will dissolve gall-stones and from the brilliant results of surgeons who operated upon a large number of gall-stone subjects. The Durande mixture of ether and turpentine and various saline cholagogues, such as sodium salicylate, sulphate, benzoate, phosphate, bicarbonate, succinate and potassium chloride and sulphate and ammonium chloride have all been advocated by various authorities. Olive oil is frequently given in nauseating quantities, yet there is not the slightest evidence that the oil can reach the gall-bladder.

Mayo Robson states that after an extensive use of oil he has never seen much good result from its employment. This is quite in accord with the writer's experience.

More modern medical views place the efficacy of oil in their hands to an increased flow from the mucous membrane. Thomson administers it in small quantities, never over two ounces at a single dose and given for ten consecutive nights, then intermitted for a week and again continued.

Granting that gall-stones could be dissolved, the results of inflammation, such as stricture, adhesions, perforations, fistulae, etc., are not cured. If we possessed an agent that would be capable of contracting the gall-bladder to such a degree as to expel its contents, the risk would be greater than the good accomplished, from obstruction of the cystic duct by a stone too large to pass through it. After supposed cures from gall-stone colic it is not by any means certain that the gall-bladder is free from stones and that a fistulous communication with a part of the intestinal tract has not been established.

Much stress is laid upon the wonderful effects of the Carlsbad waters. It is undoubtedly true that many sufferers are relieved by this course of treatment, but, as Kehr puts it, "the principal material at Carlsbad is the gall-bladder lithiasis of the prosperous class and not the chronic obstruction of the common bile duct." In those of sluggish habits and torpid constitutions the regular mode of living, the soothing effect of the warm medicated waters and the laxative action of the springs are all conducive to a powerful and beneficial stimulation of the tissues. The efficacy of the Carlsbad treatment lies in the subsidence of the inflammatory process, not in the expulsion or the dissolving of the calculi. That the hot Sprudel salts will relieve gall-stone pain, there is no doubt; further, the stimulation of the liver and the portal system in general aids very materially toward bringing about this temporary cure.

In cases of mild gall-bladder infection the symptoms are relieved and a period of latency established by prompt medical treatment; but the attacks recurring again and again result in complications which cannot be relieved by medical means.

Cholecystitis occurring during enteric fever has been frequently observed by the writer, but fortunately has never required operative interference. Unless the condition becomes advanced, operation is not advised because of the systemic disease from which the patient is suffering and the chance of inducing perforation by the trauma of operation.

Acute obstruction of the common duct should never be operated upon during the acute stage. The stone, having left the gall-bladder, is moving through the common duct and may reach the duodenum. When the disease drags on, however, with fever and increased pulse-rate, then the time has arrived when to defer operation is no longer warrantable. During the acute stage the pain may be alleviated with small doses of morphine, absolute rest enjoined and hot applications applied to the hypochondriac region. The stools should be searched for the presence of stones. After the subsidence of the attack, intestinal antiseptics may be administered and the bowels

kept freely moving. Digestion should be regulated, regular exercise and warm bathing ordered and the patient carefully watched.

Should symptoms of obstruction return after apparent relief, indicating a fixed position of the stone, operation should be immediately advised. The temptation naturally arises to try the same treatment which was successful in the first instance, but this either leads to chronic morphinism or to some complication of the gall-ducts, leaving the patient in a wretched condition when he finally comes to the operating table.

It should be remembered that the mortality of choledochotomy is as high as that of acute appendicitis with pus outside of the appendix, and that the mortality of operation when stones are still in the gall-bladder is nearly as low as the removal of an appendix in the early stages of inflammation before the suppurative process has become extra-appendicular.

When a suppurative cholangitis occurs recovery is very unusual. Pancreatitis from obstruction by a gall-stone is a serious and often a fatal condition. These mortalities should be borne in mind when hesitating over the treatment of gall-stones.

Suppurative cholecystitis with or without a stone in the cystic duct requires cholecystotomy and drainage. Hydrops of the gall-bladder usually calls for cholecystotomy and drainage, though, if there be considerable disease of the walls of the bladder, such as marked thickening or calcification, a cholecystectomy may be best. In cholangitis and chronic pancreatitis drainage holds out much promise for recovery. In the former instance the hepatic ducts are drained directly by incising the common duct and carrying the drainage tube into the hepatic duct. In chronic obstruction of the cystic, common or hepatic ducts, choledochotomy must be performed and the stone removed. Crushing the stone *in situ*, if it cannot be done with the fingers, I regard as attended with no little danger. Dislodging the stone and carrying it into either the gall-bladder or the duodenum, depending, of course, whether it occupies the cystic or common duct, I have never been able to do except in a few instances.

In operating upon gall-stone subjects calcium chloride should be administered for a few days previous to operation, giving ten or twenty grains three times a day. It seems to lower the time required for the blood to coagulate and thus lessens the risk of postoperative bleeding. The presence of the bile products in the blood has some action, as yet imperfectly understood, which greatly retards coagulation. The writer has lost cases from severe capillary oozing following an otherwise apparently successful operation.

The placing of a sand pillow beneath the back will so arch the liver forward that when the abdomen is opened the liver may easily be drawn out of the abdomen far enough to give a better exposure of the biliary passages. Adhesions should be carefully separated and unnecessary handling of the liver, gall-bladder or ducts avoided.

Cholecystotomy. The gall-bladder is exposed by an incision through the right rectus muscle and, excepting in highly infectious cases, is generally free

from adhesions, which, when met with, usually involve the abdominal wall, liver, omentum, duodenum and pylorus. The gall-bladder is isolated with gauze pads and aspirated of its contents. The puncture is then enlarged and the gall-bladder examined for stones; if present they may be removed with forceps or a scoop. A small piece of iodoform gauze is introduced into the gall-bladder and the opening temporarily closed with a hemostatic forceps. The gall-bladder is then brought into the wound if possible. A piece of gauze is passed around the gall-bladder in such a manner as to allow the lower end of the gauze to protrude from the lower end of the wound, and the gall-bladder is sutured to the aponeurotic layer of the abdominal wall. Before tying the gall-bladder sutures the gauze pads are removed, but not the gauze around the gall-bladder. The sutures are tied, the wound in the abdominal wall above and below the gall-bladder closed, the hemostatic forceps removed, the piece of iodoform gauze taken out of the gall-bladder and a solid rubber drainage tube carried into that organ. This drains into a receptacle at the side of the bed.

When acute empyema exists it is safer in most cases merely to suture and drain the gall-bladder, not searching for calculi until the danger of infecting the ducts has disappeared. When it is impossible to bring the gall-bladder into a position favorable for its suture to the peritoneum, it must be protected by gauze packing after introducing the drainage tube. Acute infectious gall-bladders should be palpated as little as is consistent with good work, and in these cases the common duct should not, as a rule, be probed for the presence of a stone.

The so-called "ideal" cholecystotomy in which the opening in the gall-bladder is sutured after removing the stone or stones is an unsafe procedure unless the patient be free from infection and the suturing very carefully performed, and, bearing in mind the fact mentioned early in this paper that calculi, in most instances, are due to bacterial infection, these cases are necessarily few. Homans has reported a case in which gall-stones formed around silk sutures twenty months after recovery from cholecystotomy.

Cholecystectomy, or excision of the gall-bladder. Mayo Robson gives the following indications for this operation: (1) In bullet wound or other wound of the gall-bladder when suture is impracticable; (2) in phlegmonous cholecystitis; (3) in gangrene of the gall-bladder; (4) in multiple or in perforating ulcers; (5) in chronic cholecystitis from gall-stones, when the gall-bladder is shrunk and too small to drain safely, and when the common duct is free from obstruction; (6) in mucous fistula due to stricture of the cystic duct; (7) in hydrops of the gall-bladder due to stricture of the cystic duct, also in certain cases in which the gall-bladder is very much dilated; (8) in certain cases of empyema, in which the walls of the gall-bladder are very seriously damaged; (9) in carcinoma of the gall-bladder.

With these indications I can agree in most points, but think that acute phlegmonous cholecystitis and gangrene of the gall-bladder are better opened and drained. Carcinoma of the gall-bladder can rarely be diagnosed until after extensive infiltration of the

lymphatics has taken place, in which case operation would only hasten death.

In chronic cholecystitis with gall-stones there is so often such marked adhesion of the structures around the gall-bladder that its removal is very difficult. An attempt to dissect it loose from the liver is followed by considerable oozing and necessitates gauze drainage. The writer is usually satisfied with breaking up the adhesions about the pylorus, duodenum and colon, and covering the raw surface with "Cargile." The gall-bladder is then opened, the calculi removed and a rubber drainage tube protected by a gauze strip introduced into the gall-bladder. Stones firmly impacted in the cystic duct necessitate cysticotomy. Adhesions following the removal of the gall-bladder frequently leave the patient in little better condition than before operation. The Mayo operation, enucleating the mucous membrane, is applicable in only comparatively few cases.

Choledochotomy is performed by incising the duct over the stone, removing it and searching with the finger and probe to ascertain that the ducts are clear, this is particularly important. The main, as well as the right and left, hepatic ducts are to be explored. If the integrity of the duct will permit, the wound in the common duct may be closed with Lembert sutures and in these cases gauze drainage should always be instituted. If the position of the duct renders suture impossible, or if its coats are infiltrated and friable, a rubber drainage tube should be introduced well into the hepatic duct and carefully surrounded by gauze packing. In certain cases of choledochotomy it is wise to drain the gall-bladder as well.

When calculi are situated close to the duodenum, in the ampulla of Vater, the duodenum must be opened through its anterior wall and the duct laid open from within the duodenum. If no intestinal contents have escaped, a Lembert suture of the duodenum is sufficient, without drainage.

When the common duct, immediately to the proximal side of the ampulla of Vater, is the site of a stone which cannot be crushed between the fingers or dislodged, the duct may be exposed by reflecting the posterior parietal peritoneum to the outer side of the descending duodenum.

Choledochenterostomy is rarely performed. The writer has but once had occasion to perform this operation.

Cholecystenterostomy is an operation which should be confined to those cases of obstruction of the common duct due to stricture or a malignant growth, and in some cases of external gall-bladder fistula. This operation was formerly performed in chronic pancreatitis, but has latterly been abandoned for cholecystotomy with drainage.

Postoperative vomiting is frequent in gall-bladder surgery and is often difficult to control. Lavage and the administration of all nourishment by the rectum are the best agents for its control.

Should capillary oozing follow operations on markedly jaundiced patients, all treatment usually fails, the patient becomes exsanguinated and death results. Calcium chloride may be administered by the rectum, twenty to sixty grains every four hours with full doses of opium.

The recurrence of pain after a successful operation is not due to the recurrence of stones, in the majority of instances, but to the presence of adhesions; the latter being amenable to operative interference with less risk than that attending the primary operative procedure. The early establishment of peristalsis may prevent the formation of adhesions.

Biliary fistulæ following cholecystostomy persist for a few months, as a rule, but ultimately close. Continued persistence of the fistula is due to some obstruction of the common duct.

Mucous fistulæ may also result from the same operation and are due to an obstruction of the cystic duct. Sometimes a mucous fistula follows a cholecystectomy, and is due to continued secretion from "islands" of mucous membrane not destroyed by the operation.

In conclusion, the writer urges that the best possible time for the patient to be referred to the surgeon is when the stones are still in the gall-bladder; that the severity of the ailment increases and that the case is less promising both from the internist's as well as from the surgeon's standpoint after the stone has passed into the common duct. There is practically no mortality from the removal of stones from the gall-bladder in the quiescent state, while the operation of removing a stone from the common duct is serious and difficult. Such operators as Kehr and Robson have a mortality of from 10 to 20 per cent. in their common duct operations.

The writer further asks his medical colleagues to witness gall-bladder surgery and in this wise to familiarize themselves with the living pathology of the disease, its extent and its ravages; then he feels sure that, like in appendicitis, they will be convinced that it is the part of wisdom to advise operation in their gall-stone patients at a much earlier date than has been their custom in the past.

BIBLIOGRAPHY.

- Blackstein. Johns Hopkins Hosp. Bull., Vol. II, p. 96, 1891.
Chiari. Quoted by Sailer.
Cushing. Johns Hopkins Hosp. Bull., Vol. IX, p. 91, 1898.
Gilbert and Fournier. Compt. Rend. de Soc. de Biol., p. 936, 1897.
Haman. Cleveland Jour. Med., Vol. VI, p. 483.
Homans. Ann. Surg., Vol. XXVI, p. 114, 1897.
Kehr. Gall-stone Disease, Philadelphia, 1901.
Lartigan. Jour. Am. M. Ass., Vol. XXXVIII, p. 930.
Mignot. Quoted by Cushing.
Naunyn. New Sydenham Society, Vol. CLVIII, 1896.
Osler. Practice of Medicine, 1901.
Opie. Am. J. Med. Sci., Vol. CXXI, p. 27, 1901.
Piersol. Normal Histology, 1895.
Richardson. Boston M. and S. J., Dec. 16, 1897.
Richter. Quoted from Robson.
Robson. Diseases of the Gall-Bladder and Bile-Ducts, 1900.
Sailer. Proc. Phila. Co. M. Soc., Vol. XXIII, No. 1.
Steel. Proc. Phila. Co. M. Society, Vol. XXIII, No. 3, p. 328.
Still. Brit. M. J., April 8, 1899.
Thomson. N. Y. M. J., Vol. CXXV, p. 353.
Welch. M. News, Vol. LIX, p. 669, 1891, and Johns Hopkins Hosp. Bull., Vol. II, p. 121, 1891.

SURGICAL REMARKS ON TYPHOID PERFORATION.*

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In bringing before you for discussion the surgical treatment of perforation during typhoid fever, the time allotted to me is so brief that I will not attempt to give a review of the subject, nor enter upon the arguments of operation versus expectant treatment. I start with the premise that as soon as the diagnosis of perforation is made, operative interven-

*Part of a symposium on typhoid fever. Philadelphia County Medical Society, Sept. 24, 1902.

tion is called for, unless the patient is obviously in a moribund condition. If this premise is true, the surgical corollary will follow, namely, that the sooner operation is undertaken after perforation has taken place, the greater the chances of recovery in the patient. We might suppose that typhoid perforation would be very similar to appendiceal perforation, but in one important, life-saving particular they differ. In appendiceal perforation the diseased area is usually surrounded by firm adhesions, so that when pus forms it is encapsulated and walled off from the general peritoneal cavity. It is the exceptional case in which the adhesions are so few or so trifling that a general peritonitis speedily follows perforation. In typhoid perforation, however, the reverse is the case, and the adhesions are usually so slight and friable as to present scarcely any barrier to the fluid poured from the bowel, and it is a very exceptional condition to find a walled-off abscess. Perhaps the reason for this difference is not hard to find. In appendicitis, occlusion of that organ generally takes place at some point above the perforation, so that the contents of the bowel cannot escape, and the resulting abscess is due only to the presence of the escaped organisms. In typhoid perforation large quantities of liquid bowel contents escape, and perhaps immediately break down the forming barriers and overwhelm the resisting power of the peritoneum. Whether such an explanation is correct or not, the fact remains that little or nothing usually opposes the flow of the bowel contents in typhoid perforation, and a rapidly spreading peritonitis is the ordinary sequel. A fatal result may then be directly attributed to two causes, both of which should, theoretically at least, be preventable: First, delay in operation; and, second, surgical errors of judgment and technique.

I. *Delay in Operating.*—Delay may result from three causes: First, and perhaps in the majority of cases, it is due to the diagnosis not being made for hours, or even a day or more after perforation has taken place. If the symptoms of perforation were always classical and the physician could at once make the diagnosis, the mortality for this dreaded complication would enormously decrease. Unfortunately, the symptoms are often so gradual and so slight, that the physician suddenly awakens to the fact that perforation must have taken place, because the signs of an advanced or even general peritonitis are present. Secondly, in a hospital service delay will result from the necessity of getting consent for operation from a parent or relative, and I have known this to lose twelve hours or more of valuable time. Lastly, the surroundings of the patient may be such that a successful operation cannot be undertaken, and delay will result in making the necessary preparations or in transporting the patient to a suitable place. It is, therefore, essential that Osler's advice to us a year ago be followed, viz., that our past cases of perforation should be carefully studied with the hope that they may throw some light on the early diagnosis of this condition; secondly, in a hospital service the consent of a parent or relative for an operation should be gained in all cases of typhoid fever, and, lastly, the

surgeon must be called at once in order that no time may be lost in the necessary preparations for operation.

The time for a successful operation is the moment the diagnosis is probable, and not when it is made certain by the signs of peritonitis. This will naturally result in a certain percentage of errors, and abdomens have been opened and will be opened when perforation is not present, but I know of no case in which this error, *per se*, has caused death. As our knowledge advances this mistake will occur less and less often.

II. *Surgical Errors of Judgment and Technique.*—Let us discuss this part of the subject under four headings: (a) *Shock*; (b) *incision*; (c) *treatment of the lesion found*; and (d) *peritoneal toilet and drainage*.

(a) *Shock.*—It has been held by several eminent surgeons that, when shock is present with perforation, some hours should elapse for reaction to take place before operation is undertaken. I cannot agree with this view, for every hour that the perforation remains patulous, the greater will be the leakage from the intestine, and the larger the area of soiled peritoneum. Immediate operation will enable us to prevent further soiling of the peritoneum, to repair the injury to the bowel, and to reduce the dangers of a septic inflammation by an appropriate toilet followed by drainage, and also to combat the existing shock and aid reaction by douching the abdominal cavity with hot salt solution. I would, therefore, urge that operation be immediately undertaken, even in the presence of profound shock, as every hour of delay proportionately decreases the chances of recovery.

(b) *Incision.*—In 85 or 90 per cent. of cases the perforation will be found in the last twenty or thirty inches of the ileum, or in the cecum or appendix. In 10 to 15 per cent. other portions of the small or large intestine are affected; notably, the sigmoid flexure, which, after the cecum, is the most likely place to look for perforation. My rule, therefore, is to make the incision directly over that portion of bowel most likely to be affected, namely, in the right semilunar line below the level of the umbilicus, and at once expose the head of the colon. Starting at the ileocecal junction the last three or four feet of the ileum are examined, next the cecum and appendix, and then the ascending colon as far as it can be exposed. If no signs of peritoneal infection are discoverable during this examination, I should consider that an error in diagnosis had been made and discontinue further operative interference. If, however, signs of peritonitis are discovered, but the perforation has escaped detection, I would continue the search by making a medium incision, examining the sigmoid flexure, descending and transverse colon, and then the remaining small bowel in the order named. It is well to remember that a perforation may be completely hidden from sight by lymph, and therefore all areas that are indurated or covered with lymph should be most carefully examined. Incision in the right semilunar line will expose perhaps 90 per cent. of perforations, and in the remaining 10 per cent. it should at least show whether perforation exists in other portions of the

bowel, by uncovering some sign of peritoneal inflammation.

(c) *Treatment of the Lesion Found.*—When the perforation is of such size, that closure of the opening will not produce a too marked stenosis of the bowel, it should be sutured at once, either transversely or longitudinally to the lumen of the gut, whichever produces the least narrowing of the tube, and no time wasted in paring the edges of the ulcer. As the wall of the intestine about the perforation is always inflamed and usually friable, the sutures are apt to tear out. For this reason a running Lambert suture is not advisable, as if one point should tear out all the other points of attachment would be loosened. The interrupted Lambert mattress suture gives perhaps the best support with the least danger of tearing out. Having closed the opening, our search for another perforation is continued, for in 17 or 18 per cent. the openings are multiple. In other words, the cecum, appendix and lower three or four feet of the ileum should always be carefully inspected, even after one or more perforations have been found and closed, but to search beyond four or five feet of the ileum will waste very valuable time in an operation in which speed is of great importance. Sometimes dark necrotic spots will be found in which the ulcer has destroyed the coats of the bowel to the peritoneum, seeming as though but a few hours more would be required to complete an opening. All such suspicious places should be treated as though perforation had taken place, and the weakened areas folded in with sutures.

If simple closure is not practicable, because the opening is too large or the bowel too inflamed and friable or the number of perforations and suspicious areas too numerous, four procedures are open to us, and perhaps the life of the patient will depend upon a proper choice of the method. First, a plug of omentum may be fashioned to fit the opening and held in place with stitches, not as a patch is applied to a garment, but as a cork in a bottle. At the post mortem table I have seen a perforation perfectly closed in this manner by nature's processes, with the omentum protruding in the lumen of the bowel. If nature can close rents in this manner, the same method is open to the surgeon under certain conditions.

Second, resection of the bowel. This has been done successfully a few times, but the operation is of necessity a severe one and consumes much valuable time. Again the opening may be so near the ileocecal valve as to necessitate a partial resection of the cecum, a procedure which could rarely be done with success in typhoid fever.

Third, the formation of an artificial anus. This would be practicable only in cases with a single perforation, and if successful will frequently require a second dangerous operation to close the opening. If this method is chosen, the bowel should be stitched to muscle or fascia, and not to the skin of the abdominal wall, so as to favor as much as possible a later spontaneous closing of the opening.

Fourth, cutting off the damaged area of the intestine from the general peritoneal cavity by walls of gauze. This again imitates nature's most suc-

cessful method of opposing a barrier to the further invasion of infectious material. The great advantages of this method are the short time required and the ease with which it can be done, and the fact that a large area of bowel can thus be isolated and all suspicious points included. I have in this way walled off the last two feet of the ileum, the cecum and part of the ascending colon with perfect success, in a case in which this entire area was so suspicious that any portion of it might have given way in a few hours. Some portions of the bowel did give way the next day, with the formation of fecal fistulæ, but at the end of four weeks the openings spontaneously closed. In this case I feel confident that a resection would have proved fatal, and with the exception of walling off with gauze no other procedure would have been applicable. Of the four procedures mentioned I should prefer the plug of omentum in the very limited number of cases in which it is applicable, and, for the others, walling off with gauze, leaving resection of the intestine or the formation of an artificial anus for the exceptional case.

In the rare cases in which the perforation has produced a well walled-off abscess, as is seen in appendicitis, if the incision through the abdominal wall opens this cavity, I should be content to institute drainage, after gently sponging the cavity, and not attempt to find and suture the opening. If, however, the anterior abdominal wall does not form part of the abscess wall, the tumor should be walled off with gauze, the adhesions broken open, and the perforation sought for and dealt with radically. It must be remembered that the ordinary typhoid patient stands operation well, provided it is of short duration, but lengthy procedures generally result fatally. Other things being equal, the most successful operations will be those which consume the least time, and the prolonged procedure should always be rejected in favor of a simple one, provided that life can be saved by the latter.

(d) *Peritoneal Toilet and Drainage.*—When the area of infected peritoneum is limited to the right lower quadrant of the abdomen, I would recommend that the infected coils of intestine be brought outside the wound and carefully cleansed with normal salt solution and gauze sponges, while the cavity within is sponged dry without flushing. The intestines are then returned to the abdomen, a glass or rubber tube carried to the bottom of the pelvis and several gauze wicks, either plain or iodoformized, introduced between the coils of intestine so as to secure good, free drainage. When the signs of peritonitis are limited, flushing the whole abdominal cavity seems to me very dangerous, as the douche may so readily disseminate infecting material to all parts of the peritoneal cavity. I, therefore, prefer cleaning limited areas in the abdomen with dry sponges, trusting to proper drainage to prevent further spreading of the infection. When, however, the signs of peritonitis have extended beyond the median line or above the umbilicus, showing a large, if not universal, involvement of the cavity, copious douching must be resorted to. The lateral incision should then be supplemented by an extensive me-

dian one, which will permit a considerable evisceration, and, while the intestines are outside of the abdomen, the cavity must be flushed with large quantities of hot salt solution, while the hand gently stirs the water around to bring it in contact with all of the peritoneal surface. The intestines are then douched and cleansed outside of the abdomen and returned. Free drainage should be provided for with gauze wicks, while a tube leads to the bottom of the pelvis. In closing the abdomen only such sutures should be used as are necessary to keep the intestines within the cavity, and the rest of the wound should be filled with gauze to secure the best possible drainage. It is also my custom to elevate the head of the patient's bed, to aid the fluids to gravitate to the pelvis, where they are removed by suitable drainage, believing that it is safer to have septic or dangerous fluids in that portion of the peritoneum which is least absorbent and remove them by drainage, rather than bring such fluids into the neighborhood of the diaphragm where they will be quickly absorbed into the system.

Of the two causes we have had under discussion which aid in keeping the mortality at a high figure, delay is far more responsible than surgical errors in judgment. If the percentage of recoveries is to improve materially, we must look to the physician for an earlier diagnosis in perforation, and the moment it has entered his mind that such a condition may exist, the surgeon should be called in, for his experience has made him more acute in scenting trouble in the right iliac fossa, and confidence in surgery has made him more bold, and under these circumstances it is the bold man who is willing to risk an error in diagnosis that will save the most lives.

As an illustration let me relate our experience at the Pennsylvania Hospital. During the past hospital year 509 patients with typhoid fever were admitted, of whom 36 died, a mortality of about 7 per cent. Of this number, eight with perforation were transferred from the medical to the surgical wards and operated upon. Only one recovered. In many of these cases the surgeon operated, not with a bright hope of success, but because the only hope for life lay in operation. Such are the melancholy statistics of the cases transferred from the medical wards; and yet three cases of perforation were admitted directly to the surgical wards and immediately operated upon, with the result that all recovered. I will grant that in two of these cases the diagnosis of appendicitis was made previously to the operation, but the fact remains that serious trouble in the right iliac fossa was at once recognized and an immediate operation saved life. Such contrasting statistics do not, of course, tell the whole truth, for the cases that came directly to the surgeon were more favorable than those transferred from the medical wards; they had been ill but a short time and were probably cases of walking typhoid fever, or else perforation had occurred very early in the disease before adynamic symptoms were pronounced. But such successes make the surgeon feel that, if he is given half a chance, he can accomplish the desired result.

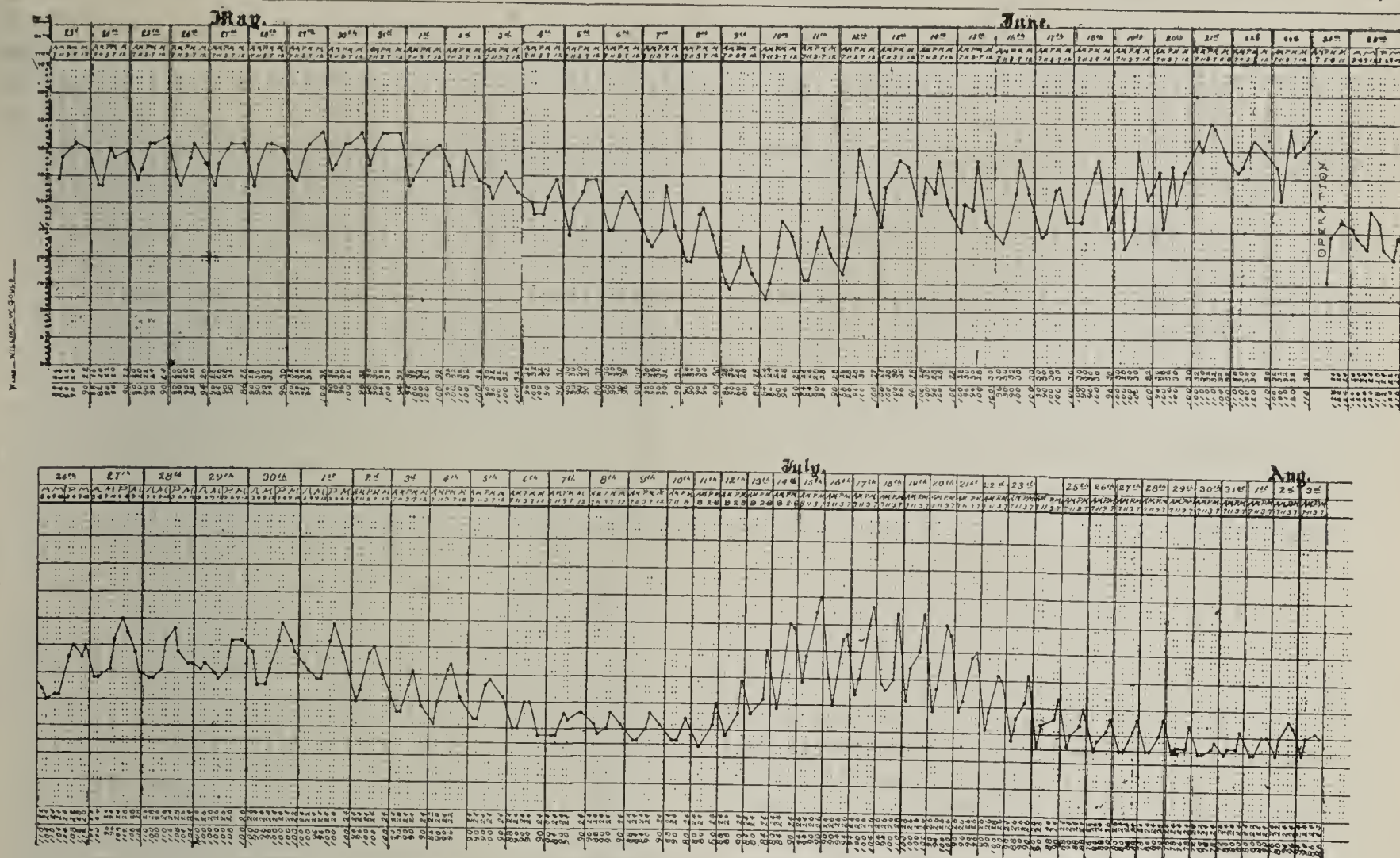
A CASE OF TYPHOID FEVER WITH PERFORATION, OPERATION AND RECOVERY,

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Perforation of an intestinal ulcer in the course of typhoid fever is unfortunately not an uncommon occurrence and, if allowed to go without surgical relief, is almost invariably fatal. So serious is this accident in the estimation of the profession that it is commonly regarded as utterly hopeless, and the chances of recovery after operation are usually considered as very small. It, therefore, becomes our duty to report all cases in which operative measures were resorted to, and their outcome, whether good or bad, so that from the collection of as large a number of cases as possible statistics may be compiled and the operation credited with as large a percentage of recoveries as the facts warrant.

It is my privilege to present the history of a case of typhoid fever, which perforated on the thirty-eighth day, was operated upon about 7 hours after the accident and resulted in complete recovery.

Mr. G., aged 30 years, presented himself at my office May 18, 1902, complaining of the usual early symptoms of typhoid fever. He had always been in good health up to about a week before, during which time he had developed slight diarrhea, indefinite abdominal pain and fever. Examination revealed slight gurgling in the right iliac fossa, moderate distension, and a mouth temperature of 101.5°. The patient was advised to go to bed at once, placed on a liquid diet, and in due time he developed all the ordinary symptoms of typhoid fever of moderate severity. Seven days after going to bed his temperature had reached 104°, and seven days later 104.6°. From then on there was a gradual decline in his temperature until normal was reached on the twenty-fourth day. His other symptoms had improved in proportion. The temperature did not remain low, however, but began to rise again with rapidity, so that on the twenty-sixth day it again reached 104°. For seven days the evening temperature amounted to about 104°, with morning remissions of from 2 to 2½°. The other symptoms were at no time alarming. The pulse-rate up to this time had exceeded 100 only on one occasion, ranging between 90 and 100. The nervous symptoms were not marked. There was at times mild delirium, though never enough to be troublesome. There had been a tendency to constipation, for the relief of which dram doses of Rochelle salt had been administered. Several times after the thirtieth day the patient had complained of pain in the rectum. Treatment had consisted in spongings with iced water, as tubbing was impracticable, and small doses of dilute phosphoric acid, resorcin, etc. For a time an attempt was made to lower the temperature by the administration of phenacetine, but in spite of three-hourly 5-grain doses for an entire week, no result beyond an increased morning remission was accomplished. On the thirty-fourth day the patient complained of a slight chill and some pain in the lower portion of the abdomen, and during the following 3 days these symptoms were observed several times; the possibility of threatened perforation was considered, and the patient was watched closely, but excepting a somewhat higher temperature and pulse-rate—the former approaching 105°, and the latter between 110 and 120—no signs indicating any definite lesions could be detected. There was no increase in the abdominal distension; the dejections were again large and fluid, numbering about 2 or 3 daily. On the morning of the thirty-eighth day, about 3 o'clock, the patient awoke from a sound slumber and complained bitterly of excruciating pains in the lower part of the abdomen. A half hour later he vomited about 8 ounces of a dark, greenish fluid, and I was called to the bedside. On examination I discovered that the abdominal distension had increased very markedly since my call on the preceding evening, entirely obliterating the area of hepatic dulness. The



pulse had become rapid and thready; the diagnosis of perforation was evident, and operation was advised as the only means of saving the patient's life. I secured the counsel of my friend, Dr. Charles L. Ill, who came to the house prepared to perform the laparotomy, and shortly after 10 o'clock the patient was on the table ready for operation. At this time the patient was in a condition of profound shock, the radial pulse was not perceptible. Still, it was not considered wise to wait for the reaction, as has been advised by writers on this subject. An incision of about 3½ inches was made in the median line; frothy but colorless serum bubbled forth as soon as the peritoneal cavity was opened; further inspection revealed liquid fecal matter in the lower posterior portion, thus verifying the diagnosis of perforation. A loop of small intestine was gently pulled through the wound until the site of the perforation was reached, the upper peritoneal cavity having previously been walled off with gauze napkins. There were no evidences of plastic peritonitis, not a single adhesion being encountered. The perforation was found in the center of a necrotic area, about ¾ of an inch in diameter, in the lower portion of the ileum. It was not considered safe to attempt an excision of the ulcer, as the patient was in a very feeble condition, so the entire area of necrosis was invaginated by a single longitudinal layer of plain, catgut, Lembert sutures. After cleaning out the soiled portion of the peritoneal cavity as thoroughly as possible with gauze wipes, 3 pieces of iodoform gauze were inserted for drainage and the upper part of the wound closed with silkwormgut sutures. The patient was returned to his bed 30 minutes after he had been placed on the operating table. Hypodermic injections of normal salt solution and strychnine were given to combat the shock, and 6 hours after the operation he was resting quietly with a rectal temperature of 99.2° and a fair pulse of 120. During the first 24 hours he vomited several times a fluid of decidedly fecal character, his temperature was 101.4°. On the second day he passed flatus freely, vomiting had ceased; on the third day his temperature rose to 102°; his bowels moved, the defecation being almost normal in color and consistency. On the fourth day the patient's condition was not so favorable, he was more delirious than at any time previous; his temperature rose to 103°, but what alarmed me more was a return of stercoraceous vomiting. The pulse became more rapid and weak. The diet had been limited

to peptonized milk. On the fifth day, fecal vomiting continuing, I decided to remove part of the gauze drainage and found it saturated with fecal matter, evidently compressing the lumen of the bowel. Free discharge of fecal matter from the wound followed, and the vomiting and nausea ceased immediately and permanently. From now on the patient progressed favorably, the fecal discharge continued for several days, gradually diminishing until it ceased entirely. On the sixth day his highest temperature was 102.8° and then gradually lowered until it reached normal on the fourteenth day after the operation. The remaining pieces of gauze drainage were removed little by little during the second week. After maintaining a practically normal temperature for four days, the patient was unfortunate enough to suffer another relapse, which lasted about 15 days, during which time the temperature rose to 104°, but was not productive of any other serious symptoms. On August 5, 42 days after the operation and 80 days after first taking to bed, the patient sat up, his wound having healed entirely. Since then he has been in excellent health.

The fortunate outcome of this case was probably largely due to the promptness with which the perforation was recognized and operated upon. The conditions found at the time of operation, that is, the character of the serum which was frothy but unstained, the limitation of the fecal leakage to a comparatively small area, and the absence of adhesions, left no doubt in the minds of the operator, Dr. Ill, and myself of the very recent occurrence of the perforation. I am also inclined to the belief that abstention from flushing the peritoneal cavity and the careful walling off of the uninfected portion, together with the mopping out of the soiled portion, as mentioned above, greatly increased the patient's chances of recovery.

On the other hand, I think that, in relying on a single layer of Lembert sutures in covering over the perforation, an error in judgment was committed which resulted in the leakage after operation recorded above. Three layers of sutures give vastly more

security, and the additional expenditure of time is too trifling to be considered.

Finally, I would like to call attention to the prompt improvement in the temperature-curve noted after the operation, which can only be accounted for by the drainage of the infected bowel afforded by the operation. This seems to me of extreme interest at the present time in connection with the very recent advocacy by French writers of treating even nonperforative cases of typhoid fever surgically. (See *Philadelphia Medical Journal*, August 16, 1902.)

THE TREATMENT OF PULMONARY TUBERCULOSIS WITH FORMIC ALDEHYDE, AND A DESCRIPTION OF AN INHALER FOR ITS PRACTICAL ADMINISTRATION.

By W. G. SHALLCROSS, Ph. G., M. D.,
of Elwyn, Penna.

The methods as described for the administration of the vapor of formic aldehyde, so far as my hasty review of the literature goes, to patients suffering from diseases of the respiratory apparatus are attended with no little inconvenience on the part of both the physician and the patient, and sometimes, indeed, with so much that we may question whether any benefit can be obtained from this form of therapy administered in this particular manner.

That we possess a valuable therapeutic agent in this drug seems conclusive. The good results obtained in three cases coming under my observation are only a slight supplement to the experience of others who have had greater opportunities to study the subject.

Vincenzo Cervello (a) has given his results in the treatment of twenty-six patients with inhalations of formalin, it being the chief ingredient of a medicated vapor to which he gave the name of "gazolo." In nineteen of these the inhalations induced, at varying intervals, a return to the normal temperature. Coincidentally with the cessation of pyrexia, the cough and the characteristic rales ceased, and the tubercle bacillus disappeared from the sputum. In the final results ten of the patients were pronounced cured and nine progressing toward recovery; of the other seven, three were distinctly improved, two were stationary, and two died.

Huggard (b) in his address at the Congress on Tuberculosis, London, states: "The most valuable agent that I am as yet acquainted with for modifying the bronchial and pulmonary secretions is the vapor of formaldehyde. For the last three years I have used this drug extensively and with more and more satisfactory results. When steadily used it generally causes the secretions to be less purulent and more mucous, at the same time diminishing the amount of expectoration, and rendering the process easier."

Muthu (c) employs formic aldehyde in two ways: By the dry method, in which the tabloids are volatilized over a spirit lamp, and by the moist method, in which, together with the former, there is steam

mixed with the formaldehyde vapor, rendering it more diffusible and efficacious. The gas is used either by effusion throughout the atmosphere or, when in the aqueous solution, it is employed in an inhaler or nebulizer.

He has used it in fifteen patients from three to five months; five, all men, were completely cured, seven, six men and one woman, were almost cured; that is, though the symptoms did not completely disappear and a few bacilli remained, they were able to go back to their former occupations and have been in good general health since. One, a woman, was slightly benefited, and in the remaining two there was no effect. Of the five who were completely restored, three had an affection of one lung, one had a large cavity in one lung, and the other had marked signs of break-down in both lungs.

Recently (d) this same author says: "I have used the inhalation of formaldehyde in combination with the open air treatment for the last three years with great success."

Green (e) states that since 1895 he has used with advantage a spray of formaldehyde in the treatment of catarrh and early phthisis. He recommends the following to be used four times a day, each inhalation lasting ten or fifteen minutes:

R Formaldehyde	1 fl. dram
Glycerine	4 fl. drams
Water	5 fl. ounces

Maguire (f) attempts to render the lungs aseptic by injecting intravenously a solution of formalin, 1 : 2000 in normal salt solution. The patient's arm is prepared as if for venesection, the needle is introduced into a vein and the fluid turned on from a burette used to measure the quantity. As much as 50 cc. of a 1 : 2000 solution may be injected in a day; larger amounts are dangerous. He has used this treatment in seventy persons and states that practically all the patients showed improvement; in some the bacilli disappeared completely from the sputum.

Tomasselli (g) believes Cervello's compound "gazolo" produces the most satisfactory effect of all the gaseous antiseptics as yet used in the respiratory tract. He has used the treatment in seventeen cases with improvement in the milder cases, but without any effect in those more advanced.

Hahn (h) uses formalin, one to five per cent. in glycerine, in the treatment of tubercular abscess of the joints, tuberculous pleurisy and empyema with very gratifying results.

In my own cases, alluded to above, all three were advanced cases of pulmonary tuberculosis and showed, in addition to the clinical signs, large numbers of tubercle bacilli in their sputum. Two of these are now entirely well and have resumed their former occupations, and the other, which has only been under treatment for the past six months, is decidedly improved.

The purpose of this report is to describe a form of inhaler which I devised and have used in the treatment of my cases, and which, I trust, will be of use to others in their application of the formalin

(a) *Lancet*, June 3, 1899.

(b) *Philadelphia Medical Journal*, Aug. 31, 1901.

(c) *Philadelphia Medical Journal*, Aug. 31, 1901.

(d) *British Medical Journal*, Nov. 1, 1902.

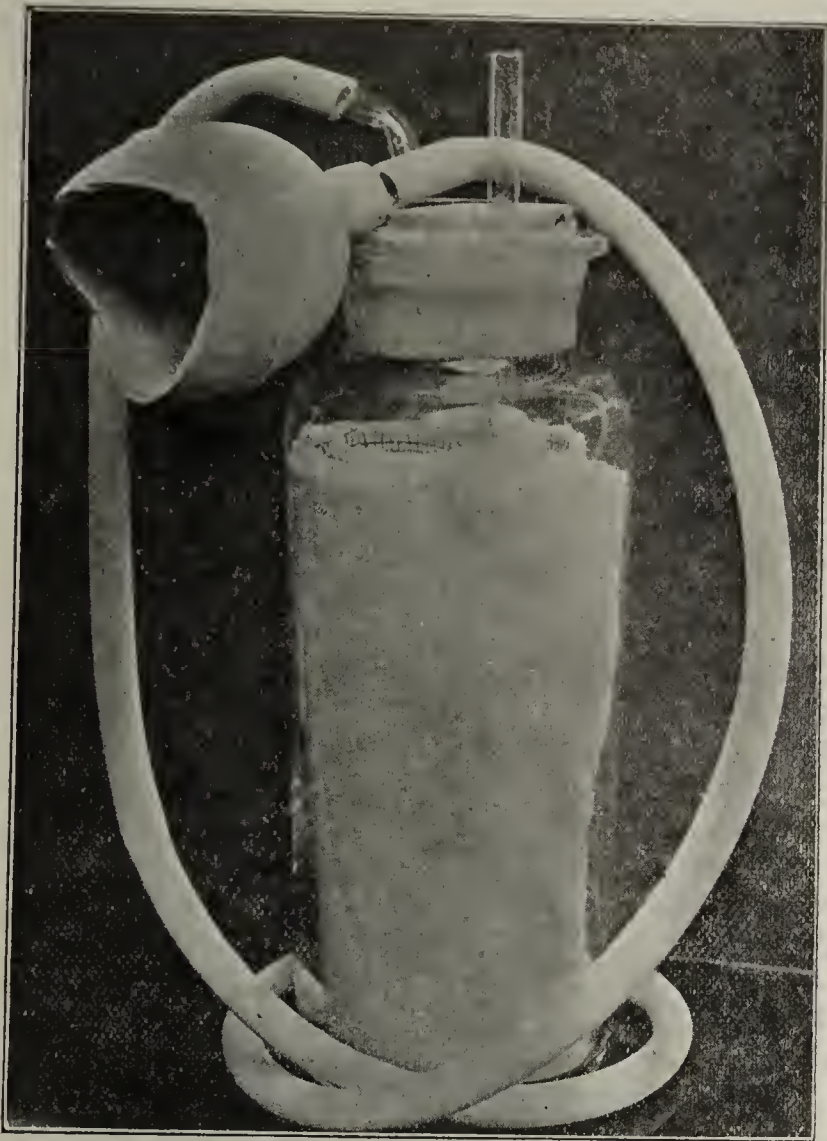
(e) *Lancet*, No. 3864, 1899.

(f) *British Medical Journal*, Dec. 15, 1900.

(g) *Gaz. degli Ospedali e delle Cliniche*, 1900, No. 8.

(h) *Centralblatt f. Chirurgie*, June 17, 1899.

remedy. We have also used it in a variety of other diseases of the respiratory apparatus with equally gratifying results, which will be reported upon later.



The accompanying photograph will give an idea of its structure. It consists of a wide-mouthed bottle, commonly known as a salt-mouth bottle, with a capacity of about one pint. This is closed by a tightly fitting cork perforated with two holes. Through one of these is passed a straight glass tube reaching within an inch or two of the bottom of the bottle, known as the inlet tube, and through the other is passed a shorter tube bent at an angle which opens just within the neck of the bottle. Over the outer extremity of this tube is pushed a piece of rubber tubing about two or three feet long, having attached to its other end the mouth-piece.

A piece of wire mosquito-netting, about fifteen or eighteen inches long by four or five inches wide, is prepared and covered on one side with cheese-cloth. The latter is cut a little wider than the wire gauze, so that its edges can be folded over and caught in the rough edges of the wire netting, which serves to hold it in place. Both are now rolled tightly together, with the cheese-cloth on the outside, and placed inside the bottle. The width of this roll is determined by the height of the bottle measured from the bottom to its shoulder. When in place, the wire will naturally unfurl, occupying several turns in the bottle, and these should be separated one from the other so as to give a greater surface exposure to the liquid, which is poured upon it in sufficient amount just to moisten the gauze all over and leave a slight excess in the bottom of the bottle. This, as

evaporation takes place, will subsequently be drawn up by capillary attraction. The mouth-piece is prepared from a rubber bulb which is supplied with the ordinary hand atomizer. One end of this is cut off with a pair of scissors and shaped to conform to the mouth.

The fluid which has given the most general satisfaction consists of equal parts of forty per cent. commercial formaldehyde and ninety-five per cent. alcohol. Chloroform, creosote, oil of gaultheria, guaiacol, etc., may be added to this when desired. About 50 cc. or twelve drams are sufficient to moisten the gauze and leave an excess. This will last for two or three months without the necessity of renewing. At the end of this time it is still strong, but the gauze will have become rusty and unsightly requiring for esthetic reasons, at least, the renewal of both.

This inhaler has the following advantages, many of which are apparent at a glance: It dispenses with the trouble and annoyance incident to the disintegration of formic aldehyde by heat from its aqueous solution, the polymerized state or special compounds. It requires no adjusting for two or three months after the apparatus is once set up. The patient can control the strength of vapor inhaled by manipulating the mouth-piece. In this way it is possible to exhibit the drug to the point of extreme tolerance without irritation, coughing or other unpleasant symptoms.

It is portable and can be used in the open air or indoors, or the excess fluid can be poured out and the inhaler packed in a trunk when traveling; in this way the gauze will retain sufficient moisture to last a week or two without recharging.

It delivers the gas thoroughly admixed with pure air, and the efforts to use the inhaler causes the patient to breathe deeply, filling every available alveolus with its vapor.

Other volatile drugs can be used along with it, excepting iodine, which will attack the iron wire.

Finally, the trifling cost and readiness with which such a form of inhaler can be procured will be a consideration to poor patients.

The effects of this form of medication are apparent almost from the beginning of treatment. Used in this way it is not an irritant, as is popularly stated, but a stimulant. The patients readily take to using it and enjoy its effects. It gives them employment and breathing exercises. It controls pyrexia by lessening the absorption of toxins, night sweats are relieved and nervous symptoms improve, cough is lessened, and the secretions become less purulent and more mucous. My first patient, who had a daily rise of temperature to 102° to 104° , was relieved on the second day after beginning the treatment. The temperature subsequently, throughout the course of the disease, remained nearly normal.

Method of using the inhaler: In addition to directions regarding the method of breathing, I direct my patients to use the inhaler, in the aggregate, two or three hours each day, from fifteen

to thirty minutes at a time. Each seance should be at regular intervals during the waking periods, and they are to use it on retiring and before arising in the morning.

Conclusions: As a therapeutic adjunct in the treatment of pulmonary tuberculosis formic aldehyde possesses certain distinct advantages.

It is a gaseous substance, having about the same specific gravity as air with which it readily diffuses, and is soluble in water.

It is the most powerful chemical disinfectant known and the nearest approach to a pulmonary antiseptic we have.

It is a stimulant nontoxic and does not irritate the respiratory tract when administered in the proper manner.

It lessens the absorption of toxins, reduces pyrexia, relieves nervous symptoms and night-sweats and sharpens the appetite.

Cough is lessened by its property to liquefy and render more mucous the secretions, and by relieving the irritation of the pharynx and larynx.

X-RAY THERAPY.

WITH REPORT OF CASES OF EPITHELIOMA, RECURRENT CARCINOMA OF THE BREAST, CARCINOMA OF THE UTERUS, CARCINOMA OF THE ESOPHAGUS, TUBERCULOSIS OF THE SKIN AND PSORIASIS.

By G. E. PFAHLER, M. D.,

of Philadelphia.

Formerly Assistant Chief Resident Physician in the Philadelphia Hospital; Assistant Physician to the Medico-Chirurgical Hospital; Director of the Roentgen Ray Laboratory of the Philadelphia Hospital, Skiagrapher to the Medico-Chirurgical Hospital, Lecturer upon Terminology and Symptomatology in the Medico-Chirurgical College.

The literature upon this subject two years ago consisted of probably less than half a dozen isolated reports of a few cases. To-day the literature has become voluminous, and the interest of the whole medical profession has been aroused. New uses have been found for it. The enthusiasm is running at such a height that it should be a danger signal. It will tend to make beginners bold, and serious burns are likely to follow, thus bringing this most valuable therapeutic agent into disrepute.

For previous reports of my cases the reader is referred to the proceedings of the Röntgen-Ray Society of America, September 11, 1901, the *Therapeutic Gazette*, March, 1902, and the Proceedings of the Dermatological Section of the American Medical Association, 1902.

In this article I shall only report very briefly a few cases which seem to teach some new point or impress a fact that is old.

CASE 11.—S. M., aged 49 years, developed an epithelioma at the inner canthus of the left eye. The growth was removed by operation by Dr. Croskey, January 24, 1902. It recurred after two months. The surgeon, feeling that he was not justified in removing any more tissue, referred the case for X-ray treatment. The growth was about one-half inch in diameter. Treatment was given April 19th., 23d., 26th., 30th., May 3d., 14th., 21st., 24th., 31st. and June 4th., 7th., 16th. and 20th., when he was perfectly well. The time of the exposure was from five to ten minutes, the distance of the part from the tube was from 4 to 6 inches, and the

vacuum equal to a parallel spark gap of one inch. I varied these conditions according to the reaction obtained, which first appeared in the form of a redness of the skin around the edge of the growth, after the second exposure. I report this case because it was necessary during the treatment to expose the eye more or less. There seemed to be no reaction whatever in the eye. This is the third patient in whom the conjunctiva was exposed without producing any bad results. There is up to the present time no evidence of a recurrence in any of these cases.



FIG. 1.

CASE 20.—B. K., aged 70 years, (photograph No. 1), had what was clinically an angiosarcoma beneath the left eye, and an epithelioma on the left ala of the nose. A section was removed from the growth beneath the eye and referred to Dr. Coca, assistant pathologist, who reported that it was an angiosarcoma, probably of perithelial origin. Treatment was given June 17th., 18th., 19th., 20th., 23d., 28th. and July 21st. and 28th., when she seemed perfectly well (photograph No. 2). The exposures averaged 8 minutes in duration, 6 inches distant, with a 2-inch vacuum. August 22d., a small crust of sebaceous matter occupied the bridge of the nose. This had been covered in the previous exposures. It seemed very probable that this would develop into an epithelioma. I therefore exposed the whole face to the effect of the X-ray and repeated it September 8th., as a prophylactic measure. This crust disappeared and she has been well since. I report this case, first, because of the associated angiosarcoma and epithelioma, second, because of the rapid recovery and few exposures required, third, to illustrate the importance of keeping such cases under observation and, with the first appearance of some new development, of prompt application of the rays.

CASE 26.—H. M., colored, aged 17 years. He had a growth upon the nose and upper lip, which had been developing for 16 months, and which is best described by the photograph No. 3. He had been treated in the Philadelphia Hospital for 6 months with mercurials, iodides, etc., with a slight improvement at first, then progression of the disease. Sections had been removed for examination, but were lost. At the end of about five months in the hospital he developed typical tuberculosis of the submaxillary glands, which were treated surgically. A diagnosis of tuberculosis of the skin was made by the dermatologists, Drs. Stelwagon, Hartzel and Gans, and the patient was then referred for

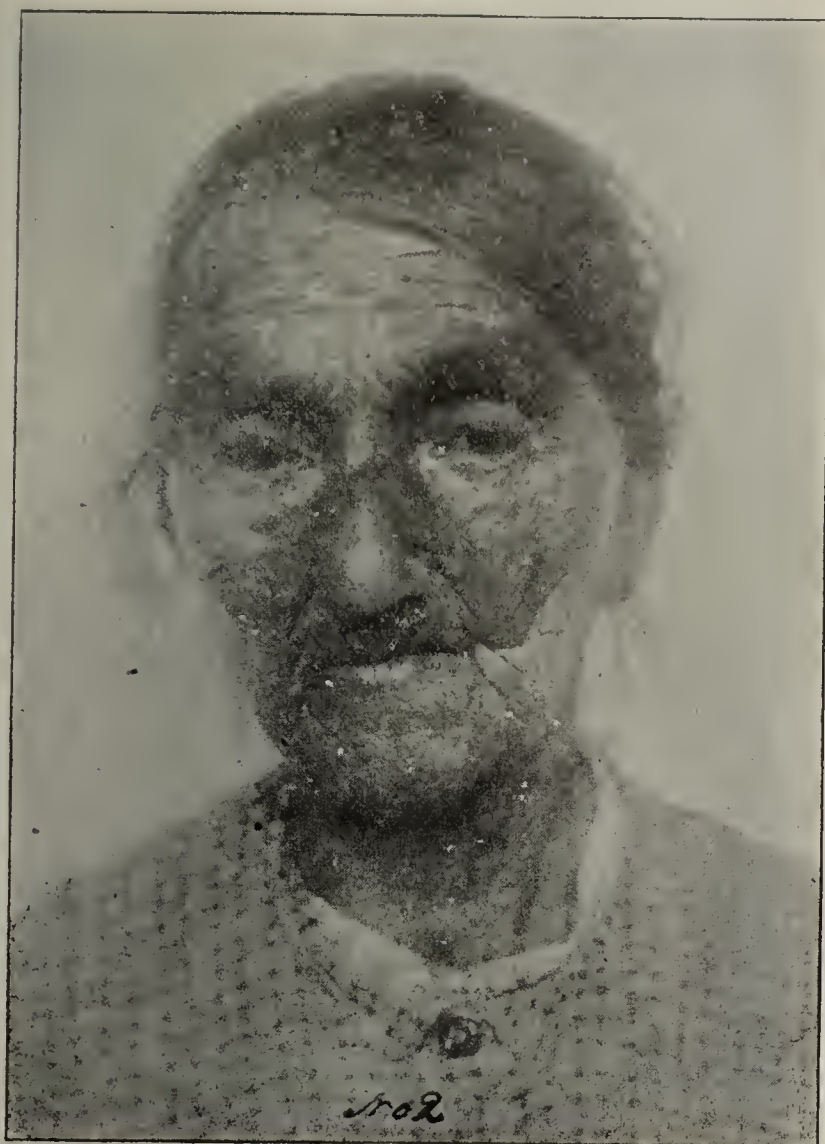


FIG. 2.

X-ray treatment, July 15, 1902. At this time, in addition to the surface growth, the hard palate was involved by nodular elevations. Up to date (October 31st.), he has had 30 treatments, varying in duration from 5 to 10 minutes, in distance from 4 to 8 inches and usually treated with a high vacuum in order to influence the growth upon the hard palate. In this, as in all the patients, the parts not being treated were covered with sheet lead. There was slight improvement at first. It then seemed to remain at a standstill for two months, when the crusts broke into fissures and became very painful. On September 25th. I ordered constant application of moist normal saline dressing and exposed the part through the dressing. From this time on there has been decided improvement, as indicated in the photograph No. 4. I report this case at this time to call attention to the value of saline dressings in certain cases. I have used it on other cases with equally as good results.

CASE 32.—M. B., colored, aged 38 years. This patient was conveyed to the Philadelphia Hospital in the ambulance, and had to be carried upon a stretcher. Examination by Dr. Elizabeth Peck, the gynecologist on duty, showed extensive carcinomatous involvement of the uterus, vagina and peritoneum. She decided that the disease was inoperable. The patient was treated at first through the abdomen, later through the vagina, with a high vacuum. She received 16 treatments from August 4th. to 27th. by which time a dermatitis was produced, as I had told the patient it would occur. The treatment was then interrupted. At this time the patient was helping about the wards and was wonderfully improved in general health. Digital examination showed decided improvement. There was no ulcerating surface at this time, as there had been at the beginning of the treatment and the nodules had in part disappeared, though the cervix was still indurated and tender, and a nodule was present on either side of the cervix. A vaginal discharge was still present, but it had lost its fetid odor. The X-ray dermatitis which was about like a severe sun-

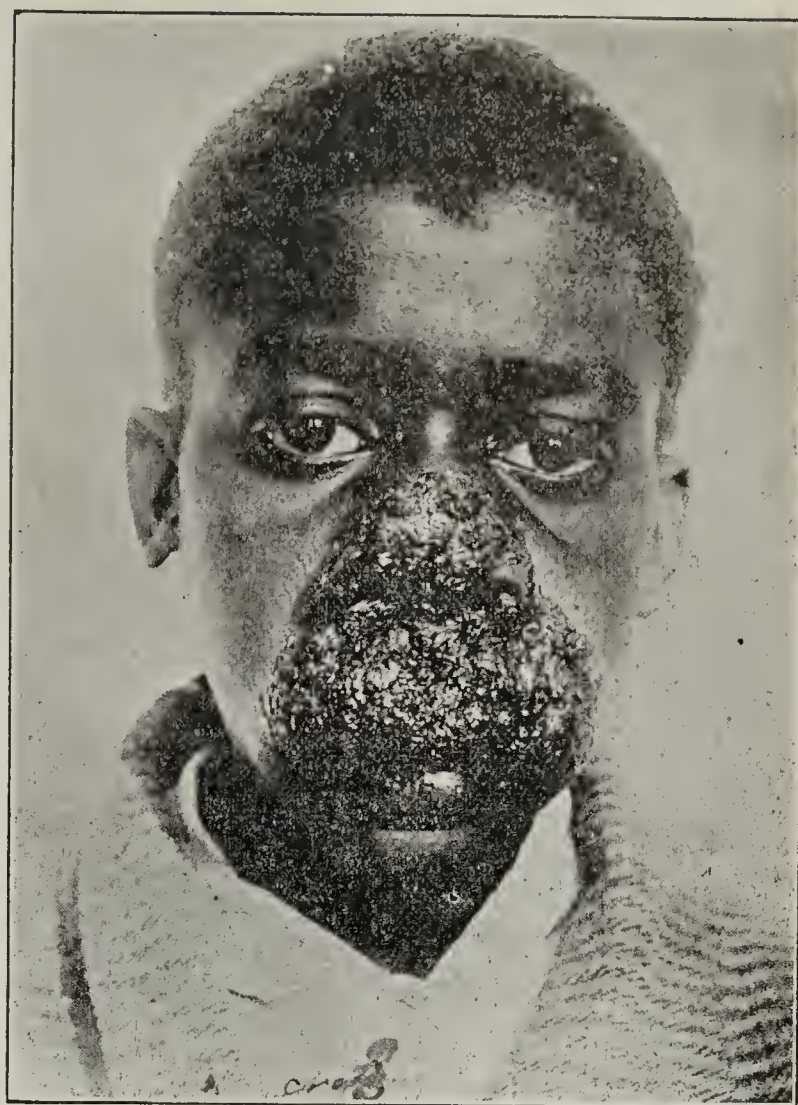


FIG. 3.

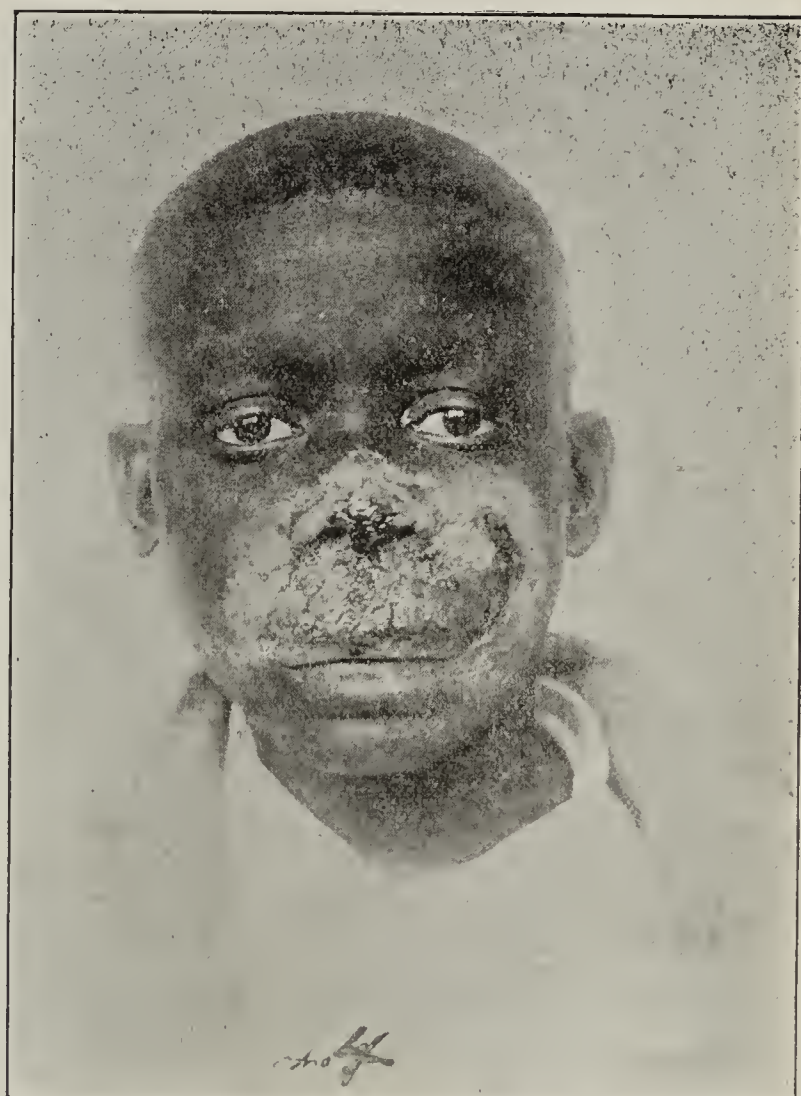


FIG. 4.

burn, required about 4 weeks to heal. At the end of this time treatment was again advised, but, the patient being an ignorant woman, she could not realize that she had a carcinoma of the uterus and walked out of the hospital. The results in this case were sufficiently encouraging to lead me to hope for a cure, had she remained in the hospital. The mere fact that a patient, who is carried into the hospital with advanced carcinoma, is able to walk out after 2 months is significant of success. A second patient with inoperable carcinoma of the uterus seemed to improve, but likewise left the hospital, because she did not believe that she had a cancer. A third patient with advanced carcinoma of the uterus was relieved of very excruciating pain. I could see no other result, though the patient claimed to improve for a time. The course, as usual, was progressive and ended fatally. This was not discouraging, because the case was too far advanced to hope for improvement.

CASE 16.—M. S., white, aged 45 years, has been operated upon in Philadelphia for a superficial carcinoma of the left breast 3 years ago. She remained apparently well one year, then developed a small nodule in the left breast. On May 12th. she applied for treatment. At this time hard masses were felt in each breast about the size of a hen's egg. Small hard glands were detected in each axilla. Treatment with a high vacuum was given twice weekly, each breast and axilla being exposed 10 minutes. October 31st., the right breast is apparently well, no glands can be felt in either axilla, and the nodules in the left breast are reduced to at least half their original size and are much softer. The patient traveled over 300 miles each week for treatment and says she has never felt better during any previous summer. Another case of primary carcinoma of the breast was almost cured by 5 exposures, when the patient died of an intercurrent attack of uremia. A third patient with recurrent and extensive involvement of both breasts and axillæ showed no improvement. Three patients with recurrent carcinoma of the breast now under treatment are improving. The results obtained in these cases are sufficiently encouraging to justify not only the prompt application of the X-ray to any recurrence, but to

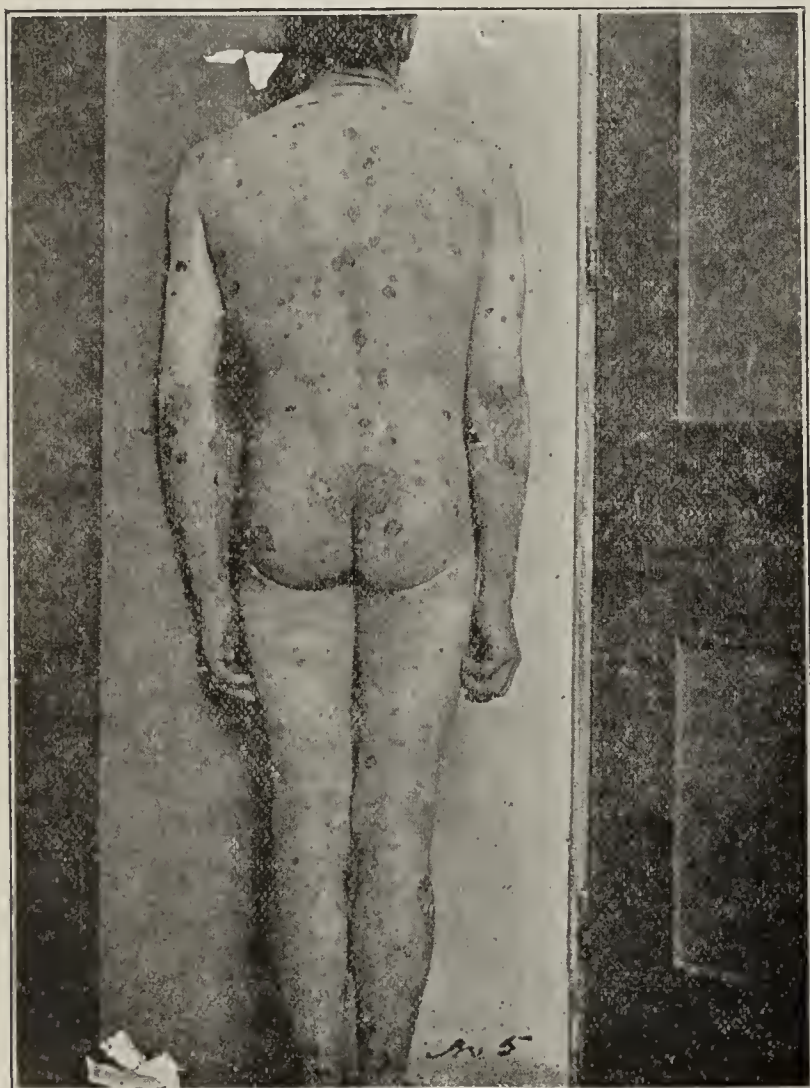


FIG. 5.

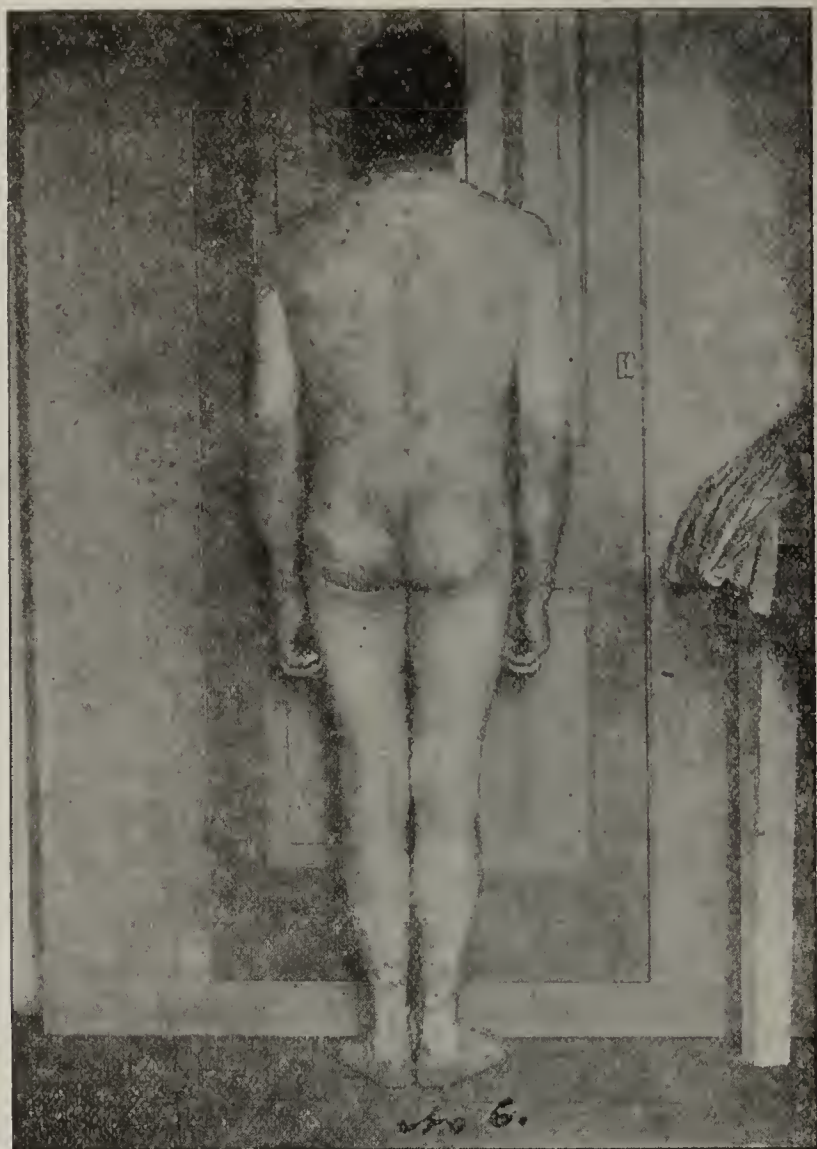


FIG. 6.

the primary growth, especially when the patient is hesitating about an operation. When an operation for carcinoma of the breast is done, it should be followed by prophylactic treatment with the X-ray.

CASE 38.—A. M., white, aged 70 years, was admitted to the Philadelphia Hospital with a history of difficulty in swallowing, having come on rather suddenly. Within two days after admission even liquids were swallowed with difficulty. An esophageal bougie was introduced to the obstruction, and an X-ray examination was made which showed not only the tip of the bougie but a mass lying just posteriorly to the cricoid cartilage. X-ray treatment was begun September 30th., with the consent of Dr. Roland G. Curtin to whom the case belonged. For a few days she had to be fed per rectum. October 29th., she insisted upon her discharge. Being an Italian, she could not be made to realize her condition. During her stay in the hospital she had received 10 treatments, at the end of which time she was taking all her food by mouth and swallowing very much better though she still had some difficulty. The diagnosis in this case, as in all visceral carcinomata, must necessarily be in doubt, but in view of the age and the emaciation which was present, that of carcinoma is most likely, though the sudden onset is against this diagnosis. The improvement in the case justifies this brief report.

CASE 21.—S. B. He has had repeated attacks of psoriasis. His last previous attack occurred 6 years ago, for which he was treated in the Philadelphia Hospital for 6 months. The extent of the eruption in the present attack is indicated by the photograph No. 5. Through the kindness of Dr. E. S. Gans, the dermatologist on duty, the patient was referred to the X-ray department for treatment. In order to eliminate all other influences I first treated the back only. At the end of three weeks the eruption had entirely disappeared, as indicated in the photograph No. 6. The points where the eruption had been were still a little deeper in color. Even this disappeared later. That on the anterior surface of the body remained stationary. Treat-

ment was then given to the anterior surface of the body, with the result that in three weeks it had likewise disappeared. (Photographs Nos. 7 and 8.) A second case, even more extensive, involving the scalp as well as the entire body, was cured in four weeks. There was no loss of hair. I believe, however, that great care should be used in the treatment of any condition of the scalp with the X-ray. A third patient under treatment at the present time is improving. The exposures in these cases were made three times a week, with a low vacuum, and the tube gradually moved over the whole body. As yet the time is too short to make any statement as to the permanency of these results. Judging from the few cases reported it seems to be the best method of treatment, though probably the most expensive, and not without some danger.

As a whole, we have probably not yet reached the limit of X-ray therapy, nor do we know the permanency of the results obtained. We are, however, justified in recommending the use of the X-ray in the treatment of cases similar to those above reported. Most of them were beyond any other form of treatment. The question then naturally arises, if the X-ray will do good late, why would it not do better earlier? The method of treatment, however, is still new, and even in the hands of those with considerable experience it is difficult to estimate the dosage required. How much more difficult, then, must it be for those beginning the work, and especially in the hands of those who have not had the opportunity for studying the power of the X-ray in other than therapeutic uses. I, therefore,

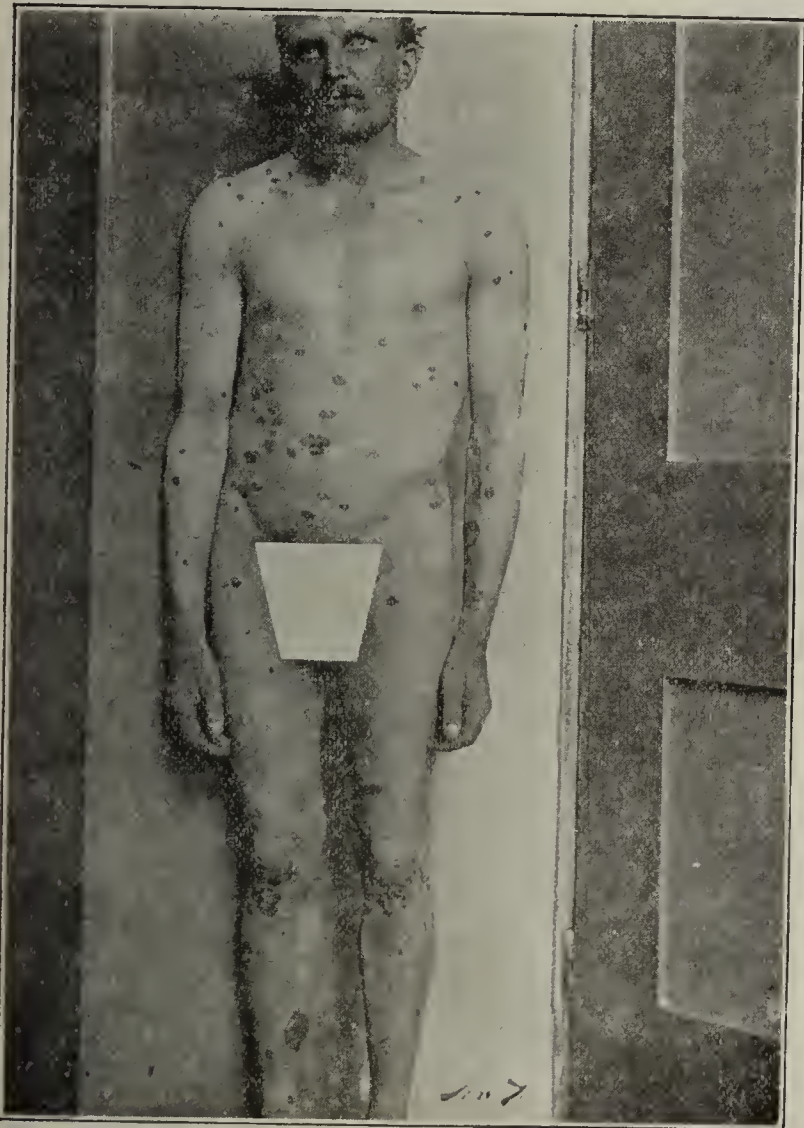


FIG. 7.

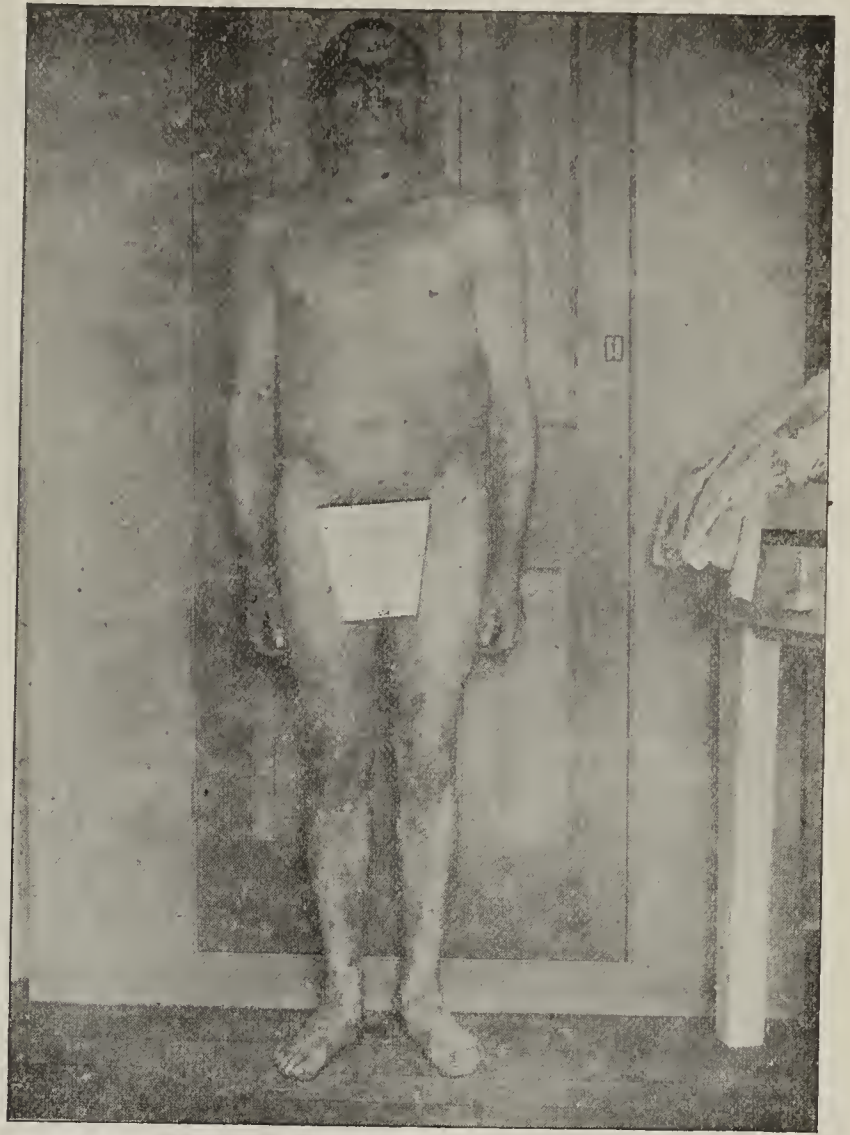


FIG. 8.

repeat that we are in danger of going to the extreme in its use, and thus bring this valuable therapeutic agent into disrepute.

X-RAY TUBE-SHIELDS AND SPECULA FOR TREATING CANCER OF THE RECTUM AND OTHER CAVITIES.*

By J. RAWSON PENNINGTON, M. D.,
of Chicago.

Professor of Rectal Diseases in the Chicago Polyclinic.

In treating cancer of the rectum with the X-ray I have encountered many difficulties. Growths in this region are very securely and completely surrounded and protected by heavy bones and thick, healthy tissues. My first efforts in treating these conditions were made by passing the rays through the healthy structures. While I have obtained beneficial results with the X-rays in the treatment of malignant conditions in the interior of the body, even when the rays must penetrate healthy tissue and when the energy cannot be directly localized at the site of the disease, yet the best results are arrived at when the part under treatment is superficial or so situated that the rays can reach it directly and without first passing through other tissues. I also used Wagner's induction tube in conjunction with this method, which was a valuable aid.

As soon as Caldwell's tube was placed upon the market I added it to my list. In this tube the anode from which the X-rays issue is placed at the distal end of the tubular prolongation. This projection

*Read before the Chicago Medical Society, Nov. 5, 1902.

may be introduced into the rectum, vagina, etc., through any of the ordinary rectal or vaginal specula, and the rays applied to the diseased rectum, prostate gland, vagina, uterus, larynx, etc.; it is also of much value in those cases in which the growth is located on one side, or is so patulous that the tube can be pushed entirely through and beyond its limitations. Should the structure involved extend beyond the reach of this tube, as they usually do in cases of cancer of the rectum or uterus, then its application is not of much value, yet I believe this tube may be so modified as to localize the action more directly forward, and I have suggested such modification to Truax, Greene and Co., who constructed one of the shields presently to be described.

In treating cancer of the rectum, however, I have found it very difficult and unsatisfactory to manipulate the tube through a speculum, to say nothing of the dangers likely to ensue from such practice. Caldwell, to obviate these difficulties and dangers, has devised an elaborate handle and shield with which to manipulate the tube and limit the area exposed. The handle is expensive, unwieldy and unnecessary so far as manipulating the tube is concerned. His shield has a very small opening through which the rays act. This aperture is so slight that it limits the effect of the rays to a very small area, which in my judgment, in treating malignant growths of the rectum, is improper, since it is advisable in such conditions to have the rays extend as far as possible. Moreover, his shield does not protect the tube from the secretions and discharges which are present in such conditions, and which, if they should suddenly come in contact with the tube when it is hot, may crack it or cause puncture, and should it collapse there would be great danger of fragments of glass being deposited in the rectal walls or other tissues with baneful results.

Because of these and other imperfections and objections I discarded his handle and had Truax, Greene and Co. make for me a metal shield with a large aperture and attach a spring to its distal end to facilitate connections with the anode, also an animal tissue cot which is to be drawn well up and over the metallic shield. (Fig. 1) This combina-

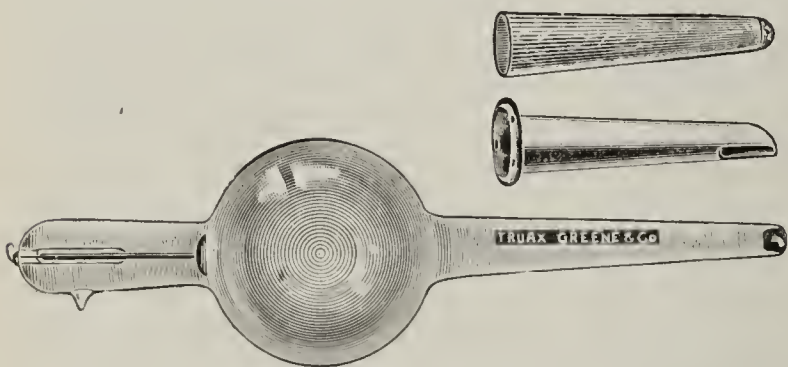


FIG. 1 illustrates Caldwell's tube, author's metallic shield and tissue cot.

tion shield provides a small space between the tube and the tissues treated, which is absolutely necessary for the transmission of the X-ray energy by induction, and is, therefore, important. To secure the best results, the tissues treated should be as near as possible to the tube, but not in direct contact with it. If the tissues are in direct contact with the

tube, then the energy will be transmitted by conduction and not by induction, and the inductive action is the vital principle. This covering also keeps the tube dry and protects it from the filthy secretions and discharges, and is a means of safety to the patient should the tube collapse from puncture or other accidental cause. As the cot is constructed of thin animal tissue it does not interfere with the X-light radiations.

With the tube thus mounted and protected, it is grasped with the hand at the junction of the bulb and cathode projection and easily manipulated and introduced into the rectum or other cavity. It should be introduced before the tube is excited. Since the therapeutic effect of the rays decreases approximately as the square of the distance from their source increases, it would seem that this tube mounted with the above-combination shield should, with a given excitation, have a much greater effect than an ordinary tube, hence it would not be necessary to use a strong exciting current or to make long exposures. If a strong exciting current be used, the target end very quickly becomes hot, and the heat may be radiated to such an extent as to produce discomfort or it may even burn the patient. In fact, Dr. Cleaves reports a burn occurring in this way from the overheating of Caldwell's shield. Bear in mind that this was not an X-ray burn, but a burn from overheated metal. Notwithstanding the apparent feasibility of this tube, because the source of energy is so close to the tissues treated, my results with it in treating cancer of the rectum have not been satisfactory. This I do not believe is because of the smallness of the tube, but because of its faulty construction, which makes it impossible so to manipulate the tube that its energy can be directed against the growth. Moreover, as the X-radiance from the normal X-ray tube is more powerful than that from Caldwell's, and as the energy will have more therapeutic value when properly directed against the growth, I had, for the purpose of using the ordinary tube in localizing and directing X-radiance in the rectum and other cavities, R. V. Wagner and Co., make for me the tube shield and specula herewith shown. (Figs. 2 and 3).

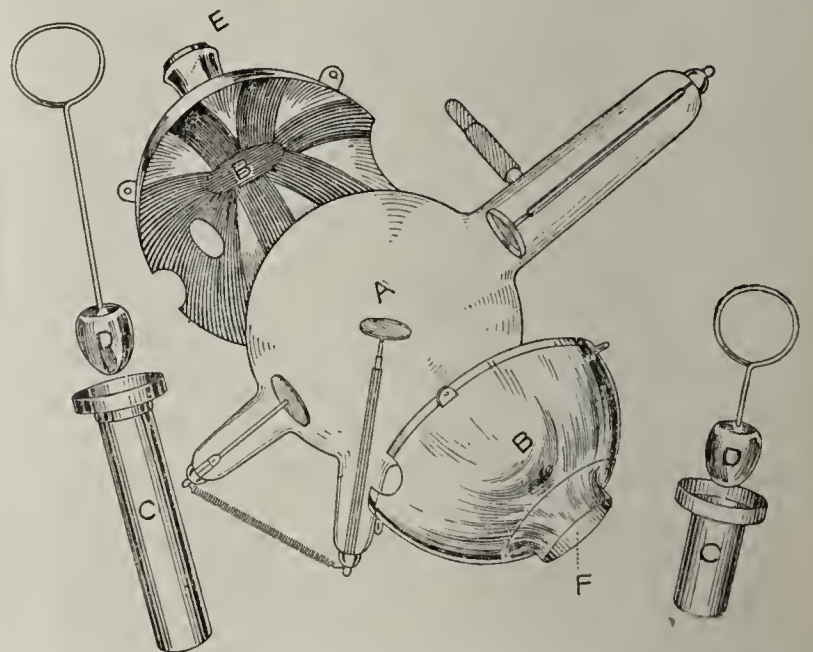


FIG. 2 illustrates (a) Crook's tube, (b) hemisphere separated; (c) specula; (d) obturators; (e) tip of the handle, and (f) flange for attaching the specula.

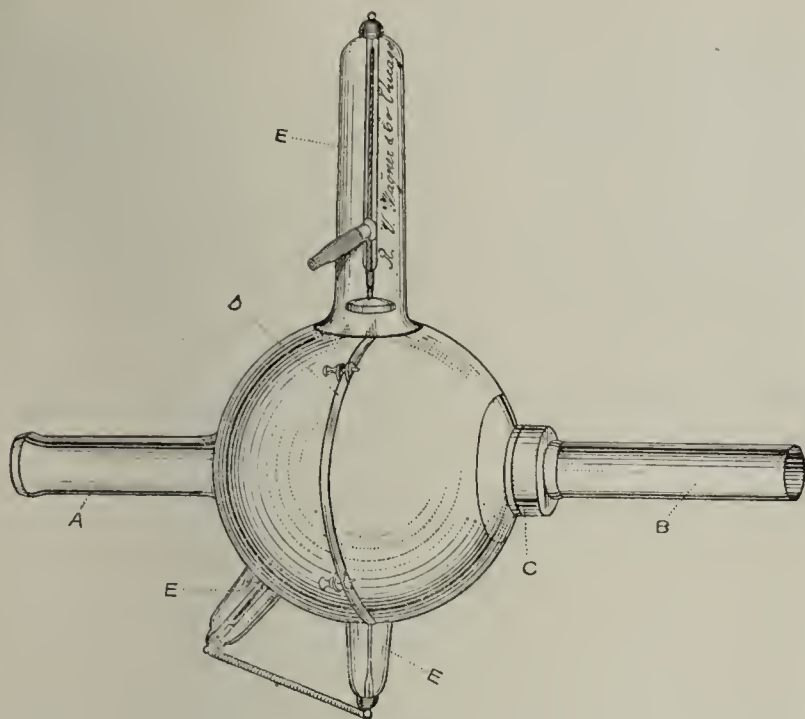


FIG. 3 shows the hemispheres clasped together over Crook's tube (e), (a) the handle; (b) speculum; (c) flange; (d) clasps for holding the hemispheres together.

The shield consists of two hemispheres so constructed as to be readily clamped together over the tube. They are made of brass of sufficient thickness to screen effectively the X-rays from acting upon the tissues which must be protected. The hemisphere opposite the target of the tube has a large opening through which the rays act. This opening is provided with a flange for grasping and retaining the speculum after it has been introduced into the rectum, vagina or other cavity. Specula of various kinds, lengths and sizes may be attached to this flange according to the requirements. A handle for manipulating the shield and tube is at-

tached to the opposite hemisphere. With the tube thus mounted, the X-radiance may be easily directed toward the object treated. The maximum X-radiance is present at the end of the speculum regardless of the direction in which it is pointing. The tube being enclosed and attached to one end of the speculum brings the source of energy very near the tissues treated.

The energy from an ordinary tube is more powerful at a distance of six or eight inches from the tissues treated than from Caldwell's tube when it is in almost direct contact with them. To demonstrate one phase of this energy, I submit herewith two radiographs, one taken with Caldwell's tube and the other with the ordinary tube enclosed in the author's shield. (Fig. 4) In the former the distance of the object from the target to the plate was $1\frac{1}{2}$ inches; time of exposure, three minutes. In the latter the distance from the target was eight inches; time of exposure, fifteen seconds. Both tubes were excited by the same energy and the same machine. The subject was the metacarpophalangeal joint of the middle finger. It will be noticed that the picture taken at the end of the speculum required much less time of exposure than that required by Caldwell's tube, and that the definition is much plainer.

To use the apparatus, the patient should be so placed that the handle will be between and parallel with the wires of the machine, then introduce the speculum, remove the obturator, cleanse the field with pledgets of cotton, insert a small pledget of cotton into the speculum to prevent the secretions from soiling the tube, connect the speculum with the shield containing Crooke's tube, grasp the handle with the full hand and then excite the tube. The operator now has complete control of the tube and speculum, which, under any and all circumstances, bear a distinct and definite relation to each other, and, therefore, he can at will direct the rays in any direction or into any cavity or artificial opening in the body.

ACUTE GENERAL INFECTIONS ORIGINATING IN THE LYMPHOID TISSUE OF THE UPPER RESPIRATORY TRACT.*

SYMPTOMS AND TREATMENT.

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In presenting to you my contribution under the head of symptoms and treatment, let me begin by stating that it would seem to me more than presumptuous on my part, let alone the fatigue to you, even to attempt to cover the whole subject. May I not, then, confine myself to details only in certain parts, and by mere mention or short description call attention to other portions of the subject, eliciting in the general discussion from you all the many sides of the question.

Properly to estimate all the clinical phenomena connected with acute inflammatory action in the lymphoid tissue in the upper air-passages, two things ought to be prominently before us. All the lymphoid

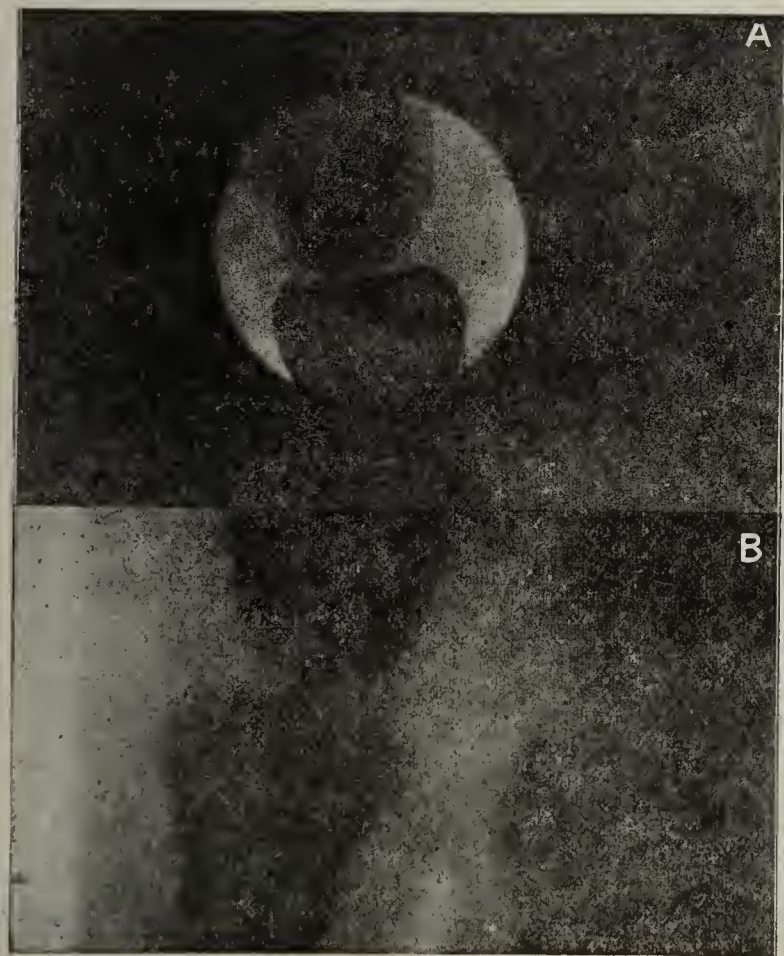


FIG. 4—Radiographs (a) made with the ordinary tube enclosed in the author's shield; time, 15 seconds; distance, 8 inches. (b) made with Caldwell's tube enclosed in the author's shield; time, 3 minutes; distance, $1\frac{1}{2}$ inches.

*Read before the American Laryngological Association, May 24, 25 and 26, 1902, at Boston, Mass.

tissue of this region is in every sense of the phrase an integral and physiologically active part of the lymphatic system, just as much so as a lymphnode in the axilla, and very eminently as is a Peyer's patch in the intestine. That is, this lymphoid tissue gives of its lymphocytes to the blood, and in the so-called tonsils proper the same changes can transpire as occur in any lymphnode. The second point is that around many, if not all, of the outlets of the racemose mucous glands as well as underneath the epithelium, everywhere in the pharynx, nasopharynx and base of tongue, there are legions of leukocytes which wander not only through the epithelium to the surface but, assembling in the open ends of the lymphatics, go directly to the nearest node, whether that be a tonsil or one of the nodes in the neck, and thence through the large lymphatics into the blood-current proper. The follicles of the posterior and lateral pharynx are nothing but small tonsils and act in the same way.

With these facts before us, this paper will speak of lymphnodes rather than lymphglands, first to avoid confusion and, second, because they are not glands in the strict sense of the word. A gland evolves some substance or secretion, the result of the activity of its own cells. The lymphnode normally is seemingly nothing but a sieve, a filtering plant to absorb and purify the lymph of toxic and other deleterious matters, a place of detention at which cells are quarantined, destroyed if diseased, or at least repaired and sent on their way again as soon as provided with a clean bill of health. Now the tonsils do this just as much as any other lymphnode, and apparently nothing more. Their situation gives them more opportunity for certain parts of the work, but to all intents and purposes they are nothing but lymphnodes.

Viewed, then, in this light, what wonder is it that we have such varied and profound disturbances of our general system resulting from acute inflammation of this part of the lymphatic system? Inasmuch as the connection is so direct with the lymphatic vessels, is not the wonder that we do not have more trouble when we contemplate how foul a breeding-place for all sorts of germs a dilated and somewhat occluded crypt in a tonsil is? Only a porous epithelium separates this pestilential mass from the center of the lymphnode, and, when once within, there is a direct contact with the lymphcurrent proper. So pertinent is the thought that a very obvious corollary must be that the leukocytes and other phagocytes themselves must be inherently possessed of power enough usually to repel or destroy matter thus seeking to invade the organism. Usually, doubtless, the bulk of the movement of the leukocytes is constantly outward through the pores of the epithelium between its cells toward the surface of the membrane and we may assume a certain equilibrium to become normal to any part or tonsil. Normally there is also some movement the other way.

Suppose some cold in the head, some general grippe, or other general disturbance of the system, such as fatigue, worry, injury, prolonged suppuration, disturbs this equilibrium or calls off, so to speak, the outer pickets, the outposts, in order to

supply the demand sent in for more leukocytes, and then with the barrier removed and the movement of the cells away from, instead of toward, the surface, the path for the festive germ lies open and, unchallenged, it finds itself within the walls of the tonsil and within the lymphatic system. Even then it may only result in a passing, trifling skirmish, but, once started and firmly encamped within the walls, then we come back to the old point. How easy it is to see that the most profound and overwhelming poisoning may take place if once that particular tonsil or lymphnode is unable to stem the tide of invasion or dispose of all poisonous or infecting matter.

All grades of severity naturally exist in these acute general infections; the simple inflammatory swelling of the tonsils, in which the next-lying cervical or submaxillary lymphnodes are involved and febrile symptoms are prominent, general cervical adenitis, rheumatic arthritis, sudden overwhelming streptococcus invasion, tubercular deposits, acute and chronic lymphatic leukemia. In these last, the impression is so deep and lasting as not only to affect the whole economy but even to bring about a lethal termination. We have still left unsaid all that might be brought up in connection with the septic poisoning which occurs in diphtheria, or how scarlet fever, measles, whooping cough and perhaps erysipelas may be acquired through the tonsils. Any or all of these disasters may come to pass even when objectively the cases are of the mildest type and when only a comparatively small amount of the large ring of lymphoid tissue in the upper air-passages is involved. On the other hand, any of these disturbances may come from inflammation of any portion or tonsil, although usually the profounder systemic disturbances rarely proceed from other than the faucial or pharynx tonsil invasion. Perhaps this is because of more direct connection with the larger lymphatic trunks and their much greater mass. Obviously to discuss all these various constitutional disturbances when occurring in each of the separate tonsils, or even to refer in any detail to all those that might occur from any one of them, would be impossible. Take diphtheria alone or rheumatism. These have been discussed and volumes written upon them. With the former, at least, we are sufficiently familiar so that before this audience I can omit all further reference to it, except to remark that profound toxemias will probably be less frequent because of the use of antitoxin which meets its antagonist directly in the bloodstream. Acute articular rheumatism might simply be spoken of in a general way in emphasizing how medical opinions change with advance in knowledge. We used so often to hear of rheumatoid diathesis and its influence upon the recurrence and production of attacks of tonsillitis. Now our attitude is to believe that the explosions of acute articular rheumatism which occur at the same time or immediately following an attack of tonsillitis are caused by matters absorbed into the system through the tonsil at that time, the inflammation being an attempt of the tonsil to stop its invasion. In fact, the tonsils are conceived to be the most frequent place of entrance for whatever germ or poison may be the cause of acute articular rheumatism. Doubtless some cases

have been and are still called rheumatism which do not deserve the name, being probably septic processes or infections on the plan of that form of trouble with which we are familiar as a result of gonorrhea.

Many times we meet with a general streptococcus infection, and the writer has had during the last year to do with two or three cases of tremendous, overwhelming constitutional disturbance, in one case nearly resulting fatally from the endocarditis which was the most prominent symptom in the early part of the attack. In this case nearly all the joints of the body, to say nothing of the various muscle groups, were swollen, painful and tender, and months elapsed before he could get around comfortably. These cases were apparently purely streptococcus cases from the start.

In the writer's experience, acute Hodgkin's disease and general lymphadenoma, both resulting fatally, began in the tonsils. The former patient, a young man, previously in good health, had a very mild sore throat, and, when seen on the second or third day on account of fever and swollen nodes in the neck, showed only a mild tonsillitis with almost no exudate. Streptococci were found in this discharge, but nothing else. The case generalized before it was realized how severely the symptoms were threatening the young man's life, and he died within a few days. The lymphadenoma patient presented a history too long to relate at this time, but the disease began in the tonsils which were the first lymphatic structures to show any disease. The pharyngeal, the two faucial and the lingual tonsils were enormously enlarged in a man of sixty. He responded to treatment with Fowler's solution. The number of white bloodcells for months would be nearly normal, and the tonsils decrease in size to one-third or less of their original bulk, yet in spite of all reasoning with the patient he would give up the treatment, and each time he seemed to slip back into a worse condition. Finally the other nodes in the neck, axilla and mesentery became enlarged to an enormous extent and after two years and a half the patient died.

When we take up the question of tubercular nodes in the neck, I am free to express a trifle of skepticism as to whether all the nodes which are removed and called tubercular really are such. Assuming for the moment that they are, and as it is presumable that the infecting matters are absorbed into the system from the upper air tract, we only feel more inclined to blame the tonsils for the trouble. It is however, not so apparent where the poison is taken in, for the history runs like this. In a person who usually reports having had numerous attacks of tonsillitis in which the nodes of the neck would be enlarged for a time and then nearly or quite disappear, following some attack which seems in no way to differ from the others, in fact may be reported as being nothing but an ordinary sore throat, or it may be following a very stormy attack, one or more of the nodes remain permanently enlarged. What the difference in the infective material was does not appear. The result is a tubercular node. If the tonsil was really always the port of entry, as it is also in every sense of the word a lymphnode

which naturally detained invaders, it would seem very strange that one should so seldom find a genuine case of tuberculosis of the tonsil or so rarely see in studying microscopical sections tubercle bacilli in the tissues. We should, in following this line of argument, be inclined to assume that it is possible for the nodes in the neck to receive infected material from other portions of the throat than the tonsils, and this would be quite in line with the thought that we are seeking to impress, that much of the lymphoid tissue in the throat is as great a menace to the health of the individual as are the tonsils themselves. But so much has already been written upon the subject of tuberculosis and tubercular infections of the lymphnodes that I refrain from commenting further, and will try to use the most of the remaining time that I am burdening you with my thoughts to bring out some facts of interest concerning the results of acute inflammation of the third or pharyngeal tonsil which have not been touched upon in the statements above.

Since the time when it became clearly recognized that the adenoid vegetations of Wilhelm Meyer were nothing more nor less than hypertrophies of a third tonsil we have fallen into the habit of logically expecting to discover in the latter all the phases of inflammatory action with which we are so familiar in the other collections of lymphoid tissue known as tonsils. We have come to a very clear understanding of the nature of the chronic enlargement, how it harbors germs and displays the same eagerness to grasp the opportunity to make its host uncomfortable by acute seizures as does its brother, the faucial tonsil. All of us have beheld our first case of genuine follicular inflammation of this tonsil with no little interest, and after seeing one have been able to discover others with a frequency leading to the reasonable conclusion that perhaps we have formerly overlooked them. However, few of us have seen so many that we cease to be interested in each fresh one observed, and it is this part of the subject that seems to me will bear considerable detailed description. Curiously enough, we can scan the literature, special and general, and although we have all been clinically observing these cases of acute inflammation of the third tonsil for years, but little appears specifically written upon this single detail of our subject.

Ingalls, in his recent text-book, and Ausset and Dorion, under the title of acute primary adenoiditis* have made special references to the points which are about to be considered. Also Dr. Cobb, at the last meeting of the American Medical Association, has made some very pertinent suggestions along the same lines.

It is in a way taken for granted that the symptoms are just the same, and, of course, the resulting constitutional disturbances will be similar if not identical with those of acute inflammation of the faucial tonsils. Very young children are, as a rule, affected with the purely third tonsil inflammation, and hence symptoms may be masked. On the other hand, these young babes have their nutritive and other processes less established and matured, and hence can be more profoundly influenced by disease

*Medical Review of Reviews, September, 1901.

limited to a small area than when the individual is older. So much is this so that there is no time in life when such lasting effects have to be chronicled as in young children from three to six years old. Let us take a simple case in which the *local* symptoms are in abeyance, as is frequently observed. The child in question seems feverish and fretful on retiring, wakes perhaps during the late evening with more or less desire for water, and, if old enough, complains of headache. The general condition seems that of considerable fever, the nose is a trifle stopped, but otherwise nothing marked except the fever spoken of and the bad breath. Occasionally there is vomiting. Visions of some of the exanthemata loom up before the fond mother, but a quick survey shows nothing but a flushed countenance and a hot head. After a restless night, morning finds a sick child with a temperature of 100 degrees or over, some little puffiness about the neck, but otherwise nothing visible internally or externally about the nose or throat unless a discerning eye can cast a glance either through the nose or up back of the palate. Frequently there will not be sufficient discharge from the nose to attract any attention to that part nor any sore throat. And this may remain so for the next two or three days. During the day the fever rises, and by night 103°, or 105° even, may be chronicled. The gentleman who dispenses the consolations of physic to the family is called in, goes over the little patient from head to foot, sounds his chest, prods his abdomen, looks into his throat, and finally shakes his head when the inspection shows no eruption anywhere. He, however, usually suggests that the morrow will clear up the diagnosis and leaves medicine in order that the *prima via* may be cared for by *quantum suff.* of cathartic. Another night disturbed by sundry dreams unless the fever is taken down by antipyretics, and the second morning breaks like the other, with the temperature less than the night before but a peg higher than yesterday. The local symptoms may be, if anything, a little less, or perhaps a cough, usually what is called a "throat cough," supervenes to mask the diagnosis and to bother the family physician. The latter begins to be suspicious of some more serious ailment, and not infrequently on that day or certainly on the next has the blood examined for Widal reaction or for the malarial plasmodium. He may fear and look for a masked or atypical pneumonia. Such examinations prove, of course, negative, and after perhaps one or more days of fever the case subsides and is laid to a disturbed stomach or a bad grippe cold, and frequently, undoubtedly, used to be grouped under the head of febricula or ephemeral fever. These days of fever, headache and general sickness may drag along to four or five before things begin to clear up, and the headache and temperature cause serious alarm. In the severer and more complicated cases there may be a remission of symptoms for a few days without full recovery of strength, and then a relapse occurs synchronous with, and probably due to, sudden enlargement of the lymphnodes under the angles of the jaw and in the neck. With this onset comes profound constitutional disturbance, the patient becomes pale, the skin looks flabby, almost edematous, all sorts of fever curves are established

and the child is genuinely sick, as those of us who have seen such cases of adenitis can readily chronicle. The nodes swell, may threaten to suppurate, and occasionally no doubt may actually break through, although the cases I personally have seen fortunately refrained from so doing.

These lymph adenitis cases drag along a number of weeks before the little people so affected can regain anything like a ruddy color and their usual general physical capacity. It has transpired that months have elapsed before such is re-established.

To add to the disturbance of the systemic nutritive conditions which so profoundly affect the patient there must be always in our minds the poor aeration of the blood which takes place during sleep and the thoroughly unrestful, unrecuperative nature of such disturbed and distressed slumber. The little patient, being not only disturbed by the fact that he cannot breathe through his nose, has also the pressure of the swollen nodes in his neck to make the feeling of dyspnea and general disturbance much greater. And without the recuperative processes upon which all childhood is so dependent during sleep for its natural growth and restoration of strength, it is small wonder that these little sufferers seem day by day to waste and almost fade away.

More careful study of the blood in health as well as in disease in children is needed, but the few of such cases that have been worked up, in which the child seems to be so thoroughly anemic, seem to show frequently no marked loss of hemoglobin and no tremendous increase of white bloodcells unless the actual leukocytosis of pus formation in the nodes or other situations is present. And yet this pallor and disturbance in the blood continues with great persistence, leaving but little doubt that there is a toxemia which has been produced by the absorption from its tonsils and nodes. Let it be understood that these cases occur, as Ausset and Dorion also observed, in which adenoids were not previously diagnosed or, as in one case I have seen, in which these had been twice removed, and that this type that we have just been considering is quite different from the regular stormy attacks with abundant local symptoms which every one recognizes from the start as at least in a general way referable to the postnasal space. It has been my fortune to see a number of these cases and to be able to help in making a diagnosis as to what the original lesion was. But, unfortunately, no bacteriological examination of the mucus in the pharynx has been made, a thing we can scarcely do with any scientific accuracy, for how can one swab out such a case either through the pharynx or the nose and not get germs on the swab from portions other than the pharyngeal tonsil?

Some of the patients referred to were either possessed of unusually tractable dispositions and throats or had very wide nostrils, and let me here emphasize the possibilities of acquiring a pretty thorough knowledge of the condition of the third tonsil by looking through the nose. By spraying out even very young children with weak cocaine solution and suprarenal extract one can reduce the swollen turbinates so much that with a good illumi-

nation one can make a very accurate estimate not only of the size of the third tonsil but also see the existence of follicular inflammation. Generally one finds very pronounced redness at least, and this effect is heightened by the intense pallor of the nose which the suprarenal produces. In two or three cases in which the children were not more than three or four years old, I have in numerous simple attacks been able to see by posterior rhinoscopy up into the nasopharynx and make an absolute diagnosis in that way. A little tact and previous education when the patient is not sick help out wonderfully in accomplishing these little maneuvers which are otherwise impossible when first begun on a patient who has not his usual self-control; as who has when his temperature is 105° . Of course, one can always put the finger up into the nasopharynx, but nothing is thereby learned except that the pharynx tonsil is or is not enlarged. The nature of the inflammation is not determined, even if it is assumed by the feeling that you are dealing with an inflamed condition. Furthermore, the finger examination is, as a rule, an absolutely unnecessary disturbance and hardship for the little patient to endure. However, when a head-mirror is not at hand or is not a weapon familiar to the practitioner in question, he might be tempted to indulge in digital examination to substantiate his opinion. The difficulties in coming to a correct diagnosis are sometimes so great that it is only by the most rigid exclusion that it can be narrowed down to a possible involvement of the third tonsil. Then knowledge, no matter how obtained, which will in any way throw light on the conditions existing in that region, is very valuable.

In contrast to these more difficult cases there are those easily diagnosed and in which once, twice or many times during the winter the little children suffer from what are called colds, when it is not at all difficult to discover that the organ which is the most afflicted is the third tonsil. How persistent is the cough and the discharge from the nose and nasopharynx and the difficulty in breathing! In fact, the whole winter may be nothing but a succession of these more or less distressing attacks, and the child is confined to the house week in and week out. Such children usually develop the chronic adenoid facies and suffer the well-known effects of this condition. Not all such children, when acutely attacked, develop high fever, but many do, and when the resistance is not up to par the postmaxillary and cervical lymphnodes are almost always more or less involved.

Some investigators have believed that quite often the tubercular infections of these same nodes came through the pharyngeal tonsil, and yet, as before stated, it is very rarely that the examination of adenoids removed from the nasopharynx develops any tubercle bacilli present in the tissues. Certainly the tubercle bacilli are found less frequently proportionately than the enlarged cervical lymphnodes are supposed to exist in young children, and if this inference possess aught of truth, it would bear out the feeling that one has, that the tonsils are not the only place through which the tubercular germ may get into the system. But allowing that the tubercle

bacillus has passed the tonsil and has reached the nodes under the angle of the jaw and in the neck, then it is easy to follow the process in just this class of individuals. The resistance of the cells in the lymphnodes themselves is reduced by the frequent disturbances which they have passed through or by their attempts at absorbing the results of inflammation in the pharyngeal tonsil, and so when a tubercle bacillus does happen to come their way then is the activity of the cells not sufficient to kill the germ or effectually to dispose of it, but it may lie there dormant and later make trouble unless the node is removed. Or the germ may pass on to some of the other nodes and there work out its full fruition of disaster in years to come.* And in this effect which these frequent attacks of inflammation have upon the resisting power of the cells in the cervical nodes I believe lies one of the chiefest dangers for the general system which these hypertrophies in the nasopharynx and pharynx possess. Consequently we cannot too strongly consider and emphasize this one point.

Very much more might be said as to the troubles made by inflamed tonsillar tissues, especially might I delay on these febrile disturbances in early childhood and in babes. It should be the first delight and thought of all true disciples of Aesculapius to make a correct diagnosis. We may be sure that many a child is daily accused quite falsely of having all sorts of things and sometimes suspected of the most grave illness when a careful survey of his case would show that it is his pharyngeal tonsil which at least originated and really was responsible for his febrile attacks. Fortunately, it lies in our power to very materially lessen the chances of such grave possibilities as regards the general health, not only for the time being in the patient's life, but for all his future. Throwing aside what removal accomplishes for the nose, facial configuration, lungs, ears and general mental capacity, we are preventing, mayhap, the most far-reaching consequences by avoiding the systemic disturbances which we have had at present in mind. So important do I believe these to be that I fear that these cases in which marked changes have taken place in the lymphnodes may have permanently impaired the vitality of the lymphocytes in a very large part of the lymphatic system, and who knows but that the condition which is described as "delicate," i. e., lack of good resistance and vim and vigor, which lasts through years of the life of an individual, may be due solely and primarily to the prolonged effects of these lymphnodal disturbances of childhood. I can vouch that it has lasted for years in cases observed, and that such children never seem to be as well as if these severe attacks of adenitis had never happened.

If we, then, take any such serious view of the case as would seem only logical and sensible in consideration of known facts, how ought we to fight this foe? We cannot remove all chances of infection, for all lymphoid tissue in any throat cannot be destroyed. We know all too well, however, that

*Friedlaender, in the Archives of Pediatrics for April, reports that in 123 autopsies made at N. Y. Foundlings' Hospital, tubercular lymphnodes were found in the chest in every case, irrespective of the cause of death. Bacilli supposed to come most frequently from adenoids.

the agglomerated masses of lymphoid tissue known as tonsils make much more disturbance than the rest of their kind, hence we must remove as much of it as seems diseased, in most cases the more thoroughly the better, for even small tonsils, when porous and otherwise diseased, make quite as much trouble as the larger ones. It would seem as though we, who are specialists in this our chosen field of labor, needed no urging to do more than we had, indeed we are accused of evincing too much alacrity to add to our income and renown by attacking every bit of such tissue wherever found. Perhaps it may seem so to the casual observer. Perhaps we do remove some perfectly innocent tissues, absolutely blameless before the world of any misbehavior or malicious intent, but be it remembered, when some of the changes which we have feebly portrayed have occurred, then it is already too late. Patients are not brought to us unless in trouble, and I doubt if we can really do any great harm by getting rid of superfluous tissue of this kind.

This question, of course, raises at once the inquiry as to whether the tonsils are really normally a necessary institution. I sincerely believe we have no right to consider them in any other light than equally as normal as any other lymphnode anywhere in the body. We cannot remove all these, even if we would, nor should we remove any tonsil because it might give trouble later. What we should do is, if we know of their having done any mischief whatever, then get rid of them, and, of course, we always must remove the very large and very spongy tonsils for mechanical reasons. Exactly on the same plan that the surgeon estimates that all lymphatic nodes in the neck which persist for a long time in an enlarged condition may possibly be tubercular, therefore, it is reasonable and right that the patient be not subjected to that possibility, and hence their removal. Such statements as given above do not imply a free license for a general annihilation of all lymphoid tissue wherever found, but convey to the conservative mind that when it seems wise to operate to be only reasonably thorough in one's work. The earlier the third tonsil is removed, other things being equal, the better, and as soon as it is known to be the cause of any trouble, just so soon should it be ablated. As far as the mere question of size is concerned, I always feel called upon to operate on one which touches the Eustachian tube or closes a half of the posterior nares as one glances through the nose and sees how far down over the posterior nares the tumor masses hang.

But enough of the question of removal. Is there anything to guard against systemic disturbance when we are brought face to face with an attack of acute adenoiditis in childhood? If the child is too young to gargle, a spray with a liberal delivery will accomplish much. Suppose the child lies flat on the back and the spray runs through the nose, it must wash off at least a portion of the third tonsil. If we use substances that open the nose and free it from discharge, much can be done by insufflating simple boric acid through the nose itself and thus into the nasopharynx. Of course, abundance of suprarenal extract sprayed into the nose not only opens it for the use of the boric acid, but does good

in the way of contracting the tonsil itself, reducing inflammation and giving more space for breathing purposes at night. Seiler's tablet solution with suprarenal and the powdered boric acid insufflated into the nose and, if possible, the nasopharynx will, I believe, mild as these measures may seem as regards the actual antiseptic value of the materials used, accomplish a great deal toward preventing the infectious matter from doing the harm to the system which it otherwise is liable to do. When one sees that the third tonsil has upon its surface follicular exudate or deposit, I feel that peroxide of hydrogen has a legitimate use, but if sprayed through the nose it must be used in very much weaker solution than one would think of using in the pharynx. Its prolonged use is not to be recommended on account of the irritation which it always causes even when carefully done, and it never should be applied at any time except it be followed, in a few moments, by some alkaline spray or gargle.

When it comes to dealing with the questions of the profounder disturbances which result from these lymphatic and tonsillar enlargements, the delicate condition in which the patient is brought by the prolonged inflammation of the nodes of the neck and others systemic disturbances which seem to influence the whole nutrition, as we have tried to point out, it is scarcely necessary for me to go into detail in the advice which is given. I believe that we should feel but little inclined to use arsenic and preparations of arsenic in treating these conditions while acute, and that we should depend much more upon, first, the local cleansing and thorough reduction of the inflammatory conditions in the throat, and second, when these constitutional conditions become chronic in postoperative cases, upon change of air, good food and nutrition. In addition may be suggested the use of such apparently well-indicated substances as beef-juice and bone-marrow.

If aught is needed further in commending this very important subject to your general discussion, gentlemen, it would seem to be along the line of urging that we do not dismiss our cases as needing no further attention when we have clipped off a portion from the tonsil or removed a fragment of adenoid tissue. We have only done a part of the work, and very much still remains to be done in many of these cases in the way of building up the system that it may thoroughly and absolutely throw off all those deleterious influences from which it has suffered when attacked by these inflammatory seizures in the lymphoid tissue of the nose and throat.

THE HISTORY OF A CASE OF INTRA-ABDOMINAL EXTRA-UTERINE PREGNANCY DELIVERED AT TERM OF A LIVING CHILD.

By W. L. ESTES, M. D.,

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Ectopic pregnancies are not uncommon. It is well known that the location of a fecundated ovum may be very various in the human female. Thus there may be tubal pregnancies, interstitial pregnancies, intraligamentous pregnancies and double conditions,

viz., one intra-uterine, the other tubal, interstitial or ligamentous. Ovarian pregnancies are also mentioned, and lastly intra-abdominal, or gestation within the greater peritoneal cavity.

Tait, the great apostle of ectopic gestation conditions, asserted that all forms of ectopic or extra-uterine gestation are originally tubal, that the rupture of the tube or gradual thinning of the tube and adhesions at the point of lodgement of the fecundated ovum in the tube were followed by the subsequent conditions of interstitial, ligamentous, ovarian, etc., pregnancies. The so-called intra-abdominal pregnancies, he asserted, were always the consequence of a rupture of a tubal pregnancy into the broad ligament with its final development there, and that they could never be properly called intra-abdominal, meaning that they were located in the larger peritoneal cavity, but that they were always intraligamentous and might subsequently by rupture or suppuration invade the contiguous regions.

That ectopic pregnancies are nearly always originally tubal I think cannot be denied, that they may be ovarian is also, in rare instances, true, as we have good authority for knowing that this condition has been found. For instance, Mayo Robson in the *London Lancet* for June 21, 1902, mentioned a case which he observed. It is possible to explain this condition, however, on the hypothesis suggested by Tait, namely an adhesion of the tubal pregnancy to the ovary, gradual absorption of the walls of the tube at the point of contact and finally a deposit of the fecundated ovum in the stroma of the ovary. His explanation of the other forms of ectopic pregnancy is so logical and clear and is supported by so many instances and cases observed by him that I think it should be adopted as the pathology of these conditions. His statement that a fecundated ovum never survives after tubal rupture and escape into the general peritoneal cavity, I think it is not true, as I myself, have had two cases which seem conclusively to prove that, after a tubal gestation has ruptured and discharged the whole fetal sac into the general peritoneal cavity, this sac may lodge at some favorable locality and develop to maturity. The first of these cases I operated on several years ago. It was a case that had "missed labor" at term, and when I saw the woman she had gone nine months over the ordinary term of pregnancy. I found a large, fully-developed, macerated fetus in a complete sac within the greater peritoneal cavity. The woman was already profoundly septic and died after the operation. My second patient was operated on last February, and was delivered at term of a fully developed living child from a sac quite within the greater peritoneal cavity. It is this case which serves as the basis of this paper. I wish to put this case on record and also to elicit a general discussion in order to obtain further data for adding to the list of cases which I am trying to prepare.

Mrs. A. S., aet. 30, born in Pennsylvania, the mother of four boys. Former pregnancies and deliveries uneventful. She menstruated last the early part of April. She remembered nothing of any special importance occurring during what she thought was an ordinary pregnancy, except perhaps the movements of the child seemed a little different from those of her former pregnancies. She passed the normal period of her labor in January, but as she felt well she

was not particularly disturbed by the fact. On the morning of February 5, while reaching up to a shelf in a closet to take something down, she suddenly "felt something give way inside her," and immediately she was seized with severe pains and weakness. Thinking her labor had begun, she summoned her family physician. After four days, as the delivery did not seem to have progressed any and the case seemed puzzling, this physician summoned a consultant. Examination now showed a decidedly puzzling condition of affairs. The patient was suffering intense and persistent pain, had begun to vomit almost incessantly and was very weak. On the fifth day she was sent to St. Luke's hospital. She arrived at the hospital early on the morning of February 8. My assistant, Dr. Walker, during my absence from town, took charge of her, at once correctly diagnosed the case and set about preparing her for operation. She was very weak, but had little fever, the temperature being 99.4° and the pulse 112. Upon my return home in the evening I saw her at once and made a careful examination. I found her almost completely exhausted, pulse 120, temperature 98.8°. She had been able to retain a little food during the day for the first time in three days, and she said she had less pain than for several days. She was pale, haggard and very tired. Examination showed a well-developed woman, her abdomen was distended, her breasts were large and she had all the usual external signs of late pregnancy. The abdomen was flatter than usual and there was marked bulging of both lumbar regions. Palpation showed a child located transversely in the abdomen, head to the right; it moved, but its movements were feeble, it seemed as large as the ordinary child at term. Percussion showed dulness up to the line of the anterior superior spines of the ilia, but above this there was decided resonance as far up as the umbilicus, above this was tympany. Auscultation showed fetal heart sounds very distinctly, and a souffle over toward the right iliac spine. Vaginal examination showed an enlarged, but empty uterus, os widely open. Careful examination showed no indications of uterine rupture, there was and had been no hemorrhage from the vagina. Uterus measured from the os externum to fundus, within, 8 cm. The examinations and history left no doubt as to the physiological or pathological condition. Evidently it was a case of abdominal pregnancy, gone to term and a still living child. It was presumed that rupture of the sac had occurred. I determined to operate immediately.

Operation.—After the usual aseptic preparations, using ether as the anesthetic, I made a median incision from the hypogastric to the upper umbilical region. As soon as the thickened and discolored peritoneum was opened, a quantity of dark greenish, grumous fluid escaped, and a very dark, almost gangrenous looking mass presented which was recognized as the omentum. This was adherent to the abdominal walls and to the brim of the pelvis. It was loosened, ligated and removed. It was now apparent that the child was under the coils of the small intestine in the umbilical region, the sac was attached to the ascending and descending colons and their mesenteries and to the under surface of the coils of the small intestine which occupied the umbilical region; it had ruptured on the left side, and part of its contents had escaped into the general peritoneal cavity. Further examination showed the left broad ligament and left horn of the uterus entirely free from the sac, about the middle of the left tube and the broad ligament above it there was a pigmented depressed annular cicatrix, which I think showed the seat of rupture of the tube. The child was quickly removed by separating the coils of the small intestine a little to the left of the median line, and enlarging, by tearing, the opening already found in the sac, the cord was clamped and cut between two hemostats. The child, a well-formed, well-developed girl, when removed was in a state of suspended animation, but was quickly revived. After the child was removed, and the cavity of the sac and the general peritoneum had been thoroughly washed out with hot normal saline solution, a further examination showed that the sac was attached below to the posterior surface of the right horn of the uterus, and to the right broad ligament, to the rectum and to the fascia of the posterior portion of the brim of the pelvis, and, as I said before, to the ascending and descending colon and the mesocolon on either side, and to the posterior surface of the coils of the small intestine which occupied the umbilical

region. The right broad ligament was simply attached to the sac by adhesions to its inner or uterine end. There was no indication whatever of any former injury or rupture, and the ligament itself did not form any part of the sac proper. Douglas's pouch was intact and contained nothing but some of the grumous, green fluid. The placenta was attached to the pelvic fascia, over the common iliac vessels on the right side. The site of the placenta and its condition were carefully examined in order to find out if it were possible to remove it. While making this examination the determination was quickly settled when a furious hemorrhage was started by an attempt to separate a sort of U-shaped bend of the cord which was attached to the bottom of the sac. Long clamp forceps and gauze packing controlled the hemorrhage. The rest of the sac was dried and a quantity of gauze packed inside of it. The margins, where the sac was opened, were stitched to the edges of the abdominal wound. The abdominal incision was now approximated and sutured, leaving an aperture of about 5 cm., which connected with the interior of the sac through which the gauze packing projected.

The woman stood the operation very well. The day following she seemed markedly better in every way. The septicemia and very weak condition when admitted gave me very little ground to hope for her recovery, however. She lost ground from the fourth day and died of exhaustion on the thirteenth day after operation. The child thrived from the beginning, and is now a strong, healthy girl baby.

Pathology.—Mr. Tait* said that all so-called "abdominal pregnancies" were invariably intraligamentous developments. He explains their occurrence by saying the first location of the impregnated ovum is in the tube which ruptures and the fecundated ovum lodges in the folds of the broad ligament and develops there. My case shows both broad ligaments in their normal place and size, a distinct cicatrix in the middle of the left tube and broad ligament, and the fetus under the small intestine, not touching the broad ligaments at all and located entirely above them.

He further says "that a fertilized ovum may drop into the cavity of the peritoneum and become developed there is a contingency I cannot accept for a moment, for the powers of digestion of the peritoneum are so extraordinary that an ovum, even if fertilized, could have no chance of development." It is generally acknowledged now that nearly all the ectopic pregnancies are originally tubal and that the other varieties result after a rupture of the tube and a liberation of the developing ovum. It seems to me, however, that it is very difficult, if not impossible, to explain the anatomical features of my case on any other hypothesis than that which Tait says is not to be accepted at all. In a patient with ruptured tubal pregnancy I operated on sometime ago, I found the fetus loose among the folds of the intestines, the whole fetal sac unbroken and with every evidence of the vitality of the fetus preserved. I believe this sac would resist for sometime the absorbing quality of the peritoneum, and in the surroundings of peritoneal fluid it might have its vitality greatly prolonged, besides the rapidly formed peritoneal adhesions might furnish it a connection for prolonging its vitality and assuring its growth. I believe this took place in my case. Undoubtedly it was originally a tubal pregnancy which ruptured. Furthermore,

it was the left tube which contained the fecundated ovum. The right tube and broad ligament were free and normal. The attachment of the placenta was over the right common iliac vessels. I must conclude, therefore, that the fecundated ovum traveled from the left tube, near its middle, to the right side of the brim of the pelvis, lodged and developed there. That such an occurrence as this must be extremely rare, there can be no doubt. The condition must be extraordinary and the sequence of the phenomena remarkable. That is to say, there must be very little hemorrhage at the time of the tubal rupture, so no hematocele shall be formed, the fecundated ovum must be at the right stage of development, it must lodge at some very vascular point, where its future development and growth may be possible without excessive pressure symptoms or danger of rupture from excessive distention.

Technique.—The chief difficulties in the operation for abdominal pregnancy are the extraction of the sac and placenta, and efficient drainage of the sac. In my case, any attempt at removal of the sac was so impracticable that it was not attempted at all. I think no operator of whose work I know anything has attempted it. Kelly states, however, (*Operative Gynecology*, Vol. ii, p. 457) "when the extra-uterine fetus has been dead for several weeks, it (the operation) becomes analogous to the removal of an adherent ovarian or dermoid cyst." A complete, extirpation of the sac in this way has been possible in each of the five cases of extra-uterine pregnancy operated upon in my clinic, in which the fetus had died in three cases during the seventh, and in two cases in which it had died during the ninth month of pregnancy. In all five cases there were no unusual difficulties in the way of enucleation. In the case of the dead fetus I operated upon several years ago, I attempted an enucleation of the sac, but found it quite impracticable. I think cases in which it is practicable are rare, and as a rule it should not be attempted. Dr. Van der Veer also advocates removal of the placenta. Tait insisted that the placenta should be removed and he reports that, in the successful case he operated upon, he succeeded in removing the placenta. Dr. Mordecai Price's case, the most successful one done in America, would not admit of the removal of the placenta at the time of the operation. Dr. Price, in a personal letter, informs me that he made three attempts, on the tenth, twenty-second and thirty-second days after operation. The first two attempts were attended with such fearful hemorrhage, that he was obliged to desist and rapidly to pack the cavity with gauze to control the flow of blood. After a partial separation later on, the third attempt succeeded. In my own case removal of the placenta was quite out of the question as it was immediately above and attached to the right common iliac vessels. Even an attempt to separate a coil of the cord from the bottom of the sac to which it was firmly attached was attended with such fearful hemorrhage that I had to desist and pack with large masses of gauze. If the sac has not ruptured and only been opened above to an extent necessary to remove the child, I believe

*Diseases of Women and Abdominal Surgery, by Lawson Tait, Vol. I, 1889 Ed. p. 443. Ibid, p. 448.

that the removal of the placenta is not necessary and is too dangerous to attempt at the time of operation. The sac should be stitched to the sides of the abdominal opening, be packed with iodoform gauze after completely emptying it of all fluid, blood clots, and carefully drying it. My case showed me the great importance of providing drainage from the bottom or the lower part of the sac. If possible, one or both lumbar regions should be employed for drainage by making an incision into the cavity of the abdomen in these regions, and if the sac is not adherent here it should be drawn down and stitched to the skin around the whole periphery of the external wound, then opened and a large sized drainage tube introduced, leaving a sufficiently large opening above in the original incision through which an end of the gauze packing should protrude. Thus the sac may be flushed as often as necessary or even permanent douching or flushing may be employed. In this way the inside of the sac may be kept sweet and clean and the danger of sepsis be to a very large degree obviated, and the placenta may thus be gradually exfoliated without serious results.

Record of cases of extra-uterine pregnancy operated upon at or near full term.

Dr. Harris gives a complete list of operations and operators in Kelly's *Operative Gynecology*, pp. 458 and 459 from 1809 to 1896. He makes two divisions of these cases, the first 37 cases operated upon before 1889, of these less than 26% were saved and about 50% of the children lived for variable periods. The last 40 cases done since 1889 showed 67¼% recoveries. He gives altogether 77 cases.

I have endeavored to collect by personal request cases which have occurred in the United States since 1896. These cases seem very rare. I have received reports of but two cases besides my own. One case was mentioned to me by Dr. Ochsner, of Chicago. The operation was performed by Dr. Tuholske, of St. Louis, and was published last summer. I have not been fortunate enough to find this publication. A personal letter to Dr. Tuholske, inquiring about this case, has not received any response. Dr. Tiffany, of Baltimore, mentioned a case done by the late Dr. H. P. C. Wilson. I hope to find this case later on.

ADRENALIN CHLORIDE IN URETHRAL WORK.

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The power of adrenalin chloride to contract blood-vessels, thus causing a blanching of the mucous membranes by its local application, has led me to use it in urethral conditions in which this effect was desired.

The following indications have been my guide for its employment, and these with a sketch of cases I submit in this report: (1) In cases of mucous or mucopurulent discharge; (2) urine; showing mucous or flat, scaly shreds and mucous shreds; (3) when endoscopical examination shows granular patches or superficial scleroses; (4) when the mi-

croscope shows puscells, epithelial cells or mucus without gonococci with or without other micro-organisms. This applies both to the anterior and posterior urethra.

CASE 1.—Chronic anteroposterior urethritis and vesiculitis. Patient gives history of 3 previous attacks. This, which is the fourth, dates from October 18, 1901, when patient had typical history of fresh infection, complicated six weeks later by epididymitis and vesiculitis (left). Notes from case-book March 27, 1902. Vesicle normal the past month, stripping this organ and prostate failed to cause any abnormality in urine passed immediately after the manipulation. Treated with the usual astringents, such as silver, copper and ichthyol; sounds were also employed as well as endoscopic treatment. After a careful observation of a thorough course of treatment, a "white of egg" drop still persisted. Microscope showed pus, epithelium and mucus. Endoscope showed abrasion 6½ cm. back of meatus, irregularity round, on floor, size like flat surface of split pea, corresponding to Oberlander's soft infiltration. No posterior endoscopical examination was made. March 27, first urine turbid, second clear but containing flakes. Anterior and posterior instillation of adrenalin chloride, 1-1000, was given. March 29, first, clear but containing mucous shreds; second, less flakes, lips of meatus glued. Upon separation small amount of "white of egg" drop which exuded only after stripping (first morning). Patient drank brandy and beer on this date. Treatment same. March 31. Both urines clear, but contain fine hair-like, floating shreds. Meatus glued in the morning, watery drop. Anterior instillation of adrenalin chloride. April 2. Both urines clear, shreds of the same character, but less in number. Meatus glued in the morning. No drop. Treatment same (anterior). April 4. Urine same, and morning glueing less. No treatment until April 16. Urine perfectly clear in first, but contained 3 very fine short shreds, hair-like and scarcely noticeable. No treatment. April 20. Condition same. Mucous membrane at meatus lusterless. Coitus and drink indulged in since March 29 on several occasions. August 20, 1902. No return of symptoms.

CASE 2.—Chronic posterior urethritis, vesiculitis and prostatitis. Referred for treatment after continuance of trouble for 18 months. After the symptoms referred to the vesicles and prostate disappeared, the "pearly drop," however, persisted in defiance of treatment for 13 weeks, except for periods not exceeding 5 days. Intermittent attacks of frequency—no urgency. March 10, 1902, "pearly drop" still present. Microscope showed epithelium and mucus. Urine, first, faintly turbid and containing mucous shreds, second, scaly and containing mucous shreds. Otis urethrometer showed tender spots 1 cm. and 3 cm. from meatus. At this time he was given deep instillations of silver. Had previously used copper, thallin, ichthyol and protargol. Gave deep instillations of adrenalin chloride on this date and anterior irrigations of silver on alternate days until March 15, when the drop ceased. Urines both clear, first contained a few fine floaters and small scales; second, none. Stopped irrigations. April 9. Has been on anteroposterior instillations of adrenalin chloride daily for 2 weeks. First urine contained a few very fine hair-like floaters; second, small scales. No symptoms. April 15. Treatment stopped on 12th. Urine same, but without scales. Mucous membrane at meatus lusterless. June 1st. No symptoms. Urine normal. July 6. No return of symptoms.

CASE 3.—Chronic anterior urethritis (specific). Second attack; had his first attack 4 years previous, with no complications. No symptoms during interval. This attack dates back 14 weeks, usual treatment having failed to reduce it beyond "pearly drop." Tender spot 1¼ cm. behind meatus on floor. Urine, first, contained shreds; second, none. Both clear. (First morning). After irrigation of anterior urethra both clear, no shreds. Microscope showed pus, epithelium and mucus, also a few diplococci which, however, did not resemble gonococci. Speculum—(March 21). Superficial ulcer on floor 1¼ cm. behind meatus, oval in shape, long axis with urethra, size of split pea. Could detect no involvement of urethral glands in this field of vision. Made direct application of adrenalin chloride. March 23. White of egg fluid appeared after stripping urethra, could be

seen in canal upon separating lips. Instillation of adrenalin chloride. March 25. Same condition in the morning. Urine, first, had but few and fine floaters, few small scales. Both clear, first contained few hair-like shreds. Treatment continued on alternate days for 3 more visits. Second day after last treatment patient drank 4 drinks of brandy and a pint of champagne. Coitus same day. Reported one week later. No symptoms. Urine, both clear, first and second contained fine floating shreds not over 1-3 cm. in length. Meatus regained some of its normal lustre. No glueing. April 4. No symptoms. Urine clear, no shreds. Has drank and indulged in coitus without restraint. Meatus showed normal luster. September 20. No return of trouble.

CASE 4.—Chronic anteroposterior urethritis. (Specific). Double vesiculitis and prostatitis. Third attack in 7 years. No symptoms during the intervals. For past three months treatment had no effect in stopping a constant morning glueing, which would be transformed to a mucopurulent drop morning and during the day, upon any sexual abuse or cessation of treatment; at this time no symptoms of posterior, ureteral or vesicular trouble was present. Urine contained, first, mucus, at times was clear but contained mucous shreds; second, clear, no shreds upon examination. After anterior irrigation with normal saline solution, both clear, no shreds. Microscope showed shreds composed of puscells and mucus. No endoscopical examination made. No special point of tenderness with bulbous bougie. March 9. Morning glueing. No treatment for 3 days. First, gelatinous shreds; second, clear, none. After anterior irrigation, both clear. March 11. Pearly drop. First, contained gelatinous shreds and mucus; second, negative. March 13. Anterior instillation of adrenalin chloride; condition same. March 14. Glycerine drop, urine same, treatment same. March 15. Watery drop which did not exude until urethra was stripped. Urine contained a few fine gelatinous shreds. Treatment same. March 16. Moisture scarcely noticeable. Urine condition same. Treatment same. March 17. Morning glueing less, urine clear, some floating scales and small fine shreds present. March 19. Morning glueing scarcely perceptible. Urine had few fine floating shreds, no scales. March 21. No morning glueing. Urine contained few fine, short, hair-like shreds. This kept up on alternate days until 31st., when a few fine shreds appeared each day. One week later membrane still lustreless. Both urines clear, no shreds. October 1. No return of symptoms.

CASE 5.—Primary attack. Anteroposterior urethritis. (Specific). No complications. In ninth week unable to find any gonococci, after repeated microscopical examinations of "morning drop," which was composed of pus, epithelium and mucus, and in consistency like the white of egg. March 20. Mucous shreds present and urine faintly turbid; second, clear none. Anterior instillation of adrenalin chloride. March 22. Drop less after anterior irrigations with sodium chloride, both clear, no shreds. March 4. Watery drop expressed on stripping anterior urethra. March 26. Morning glueing, no drop, both urines clear. First, 4 fine, short floaters. March 28. Same condition. March 30. No glueing, no drop, both clear. First, 2 of same shreds and one small scale. April 7. No symptoms, mucous membrane lustreless. One week later one shred still present, but shorter and thinner (scarcely noticeable). Luster returning. July 6. No return of symptoms.

CASE 6.—Semifibrous stricture at bulbomembranous junction, following second attack of gonorrhea. First, 10 years ago; last attack 4 years ago. Duration 6 and 8 months respectively. Age 28. Only able to introduce No. 9, flexible, leaden bougie, which was firmly grasped and would not pass entirely through. On a second attempt, 5 days later, was able to introduce No. 9 with difficulty. Third seance 5 days later, No. 10, became engaged, but would not go through. Twelve would not enter to slightest degree. Introduced Ultzman's syringe to face of stricture and injected 30 min. adrenalin chloride, when No. 12 went through with little trouble, instrument being firmly grasped. Five days later returned to No. 10, which could then be put through with perfect freedom, due to previous dilatation. While this procedure in itself is of no special importance, it suggests the possibility, however, of converting a tedi-

ous perineal section, without a guide, into a simple external urethrotomy, with a guide. This case, however, presented an untoward action to the drug. Both flexible and steel bougies failed to produce any symptoms of discomfort, either during or after manipulation. On three separate occasions within a few minutes after introduction of the drug into the urethra the following line of symptoms presented itself. Features became pinched and pallid, cold sweat over all portions of body exposed to view (face, neck, forearms, hands, abdomen, chest), gasped for air, consciousness retained, intense pain in occipital region. Last attack of cephalalgia continued for 18 hours, and so severe as to confine patient to bed, thus being the first severe headache ever experienced by him; pulse ranged from 100 to 134. There was no urethral bleeding. To eliminate the possibility of a neurasthenic element, went through the same procedure, using sodium chloride solution at the next visit, with negative results.

CASE 7.—Chronic anteroposterior urethritis, vesiculitis, prostatitis and phosphaturia (4 years standing). These conditions were present when treatment was commenced. Phosphatic masses as large as peas were passed per urethram, accompanied with intense pain of frequent occurrence. Sounding and X-ray examination eliminated vesical or renal calculi. Persistent use of urotropin corrected this condition. This, in conjunction with attention to the parts mentioned, cleared up all lesions except 2 tender spots in the canal $1\frac{1}{4}$ and 4 cm. from meatus, detected with the Otis urethrometer. These were, I believe, responsible for a persistent return of the mucopurulent discharge after coitus or drinking, even in moderation. Before beginning treatment (adrenalin) the following record was noted: Urine, first, contained mucus and a few gelatinous floaters; second, clear, none. After anterior irrigation with sodium chloride solution, both urines clear, no shreds. Microscope showed pus, epithelium and mucus. No endoscopical examination made. On this date (March 16, 1902) began anterior instillations of adrenalin, 60 min. each day. This was kept up for 10 days, the discharge having ceased on sixth day, hygiene also being rigidly adhered to. Six days after cessation of treatment patient drank 8 glasses of beer and indulged in coitus, with no apparent harm. At this time mucous membrane at meatus was lustreless. Eight days after test (14 days after cessation of treatment) urine was clear, but contained 2 fine hair-like shreds in first, which floated, also one tiny scale (floating). No symptoms at this time. June 5. Condition normal. August 21. Condition normal.

CASE 8.—First attack of chronic anteroposterior specific urethritis of ten months duration. First seen 3 months ago, when patient was referred for this condition. At that time had purulent discharge in which was found a moderate number of gonococci. This was reduced to the "pearly drop" in the morning, urines—both clear; first, scaly shreds; second, Fürbringer's hooks present. This was after adrenalin had been used on alternate days for 6 weeks, following disappearance of gonococci, at the end of which time the results were no better than with any other treatment, which would do no more than temporize, as symptoms would return upon suspension of treatment. I am persisting in the (anterior) instillation of the drug and believe that condition will be cured by its use, but not the follicular lesion which exists in the posterior urethra. Of course, any other astringent might be looked to for the same results, none, however, were given a fair trial in this case, we being anxious to see the effects of this drug on deeper lesions, and if one case may act as a suggestion I would be inclined to look upon it unfavorably. The posterior part of the canal was treated by massage through rectum and dilatation after the failure of adrenalin to have any effect in a trial of 6 weeks. June 5. Adrenalin had no effect on folliculitis, which followed the ordinary course to favorable termination.

CASE 9 and 10.—These are so similar to No. 8 as to profit nothing by reciting in detail. Follicular involvement is indicated in both. In one an endoscopical examination was made of the anterior urethra after the instillation of adrenalin each day for 4 days. The entire field looked lustreless and somewhat anemic.

CASE 11.—Subacute anterior specific urethritis. Puru-

lent discharge containing gonococci (all methods except culture). Daily instillation of adrenalin had not the slightest influence.

The cases that I have selected have been of the most obstinate character in their resistance to other drugs, this being the most satisfactory way of reaching a conclusion.

I believe that the field of usefulness for this drug in urethral work is limited to the same indications as for mucous membranes in other localities.

It is a drug which is painless (in urethra) to apply, will cause a cessation of mucous secretion by causing contraction of the bloodvessels for a time, varying in different cases. It is exceedingly expensive, will act only on superficial lesions and will bear watching for untoward action.

A PLEA FOR THE GENERAL EMPLOYMENT OF CREDE'S METHOD.

By N. J. WEILL, M. D.,
of Pittsburg, Pa.

Very recently three cases of blenorrhea neonatorum or gonorrheal ophthalmia in the newborn have come under my observation, the third one in a very deplorable state. I am, therefore, prompted to call attention to the too little practised but excellent means of prevention at our disposal.

Why does the accoucheur not employ *Credé's* method in every case? Assure him he can do no harm in any newborn babe's eyes with a drop of a two per cent. solution of silver nitrate, properly instilled, and it is reasonable to believe he will use it. Every now and then some one tells of an unpleasant though not serious conjunctivitis set up or excited by *Credé's* practice. Recently Leopold¹ had the pleasure of ably refuting Cramer's objections to the use of silver nitrate in newborn infants. One hundred cases of slight or even severe innocent conjunctival irritation, in which a drop of a two per cent. solution of silver nitrate was used, does not compare in havoc with a single case of advanced blenorrhea neonatorum, such as one now under my care. All cases of innocent conjunctivitis occurring in practice, in which *Credé's* method has been used as a preventive, cannot be justly attributed to the silver, since many vaginal secretions, not gonorrheal, and antiseptic douches employed at the time of delivery are capable of, and do, set up conjunctivitis in the newborn without the aid of silver nitrate.

The following case of gonorrheal ophthalmia, with such deathly havoc, to which reference is made above, will illustrate the worst form of these cases, which a drop of a two per cent. solution of silver nitrate at the proper time *might*—and I believe *would*—have prevented.

Baby M. Born August 18, 1902. According to the mother and other inmates of this house of prostitution, the child's eyes became inflamed on the fourth day after birth. So far as they all know, nothing was dropped into the child's eyes at the time of birth. The mother, however, had gonorrheal vaginitis. The physician, who delivered the mother, treated the babe's eyes after they became irritated, but never called the mother's attention to her vaginal gonorrhea, or treated it. On September 15, 1902, i. e., four weeks after the birth of the child, I was called to attend the babe's eyes. The less said the better; the right cornea completely

destroyed and the left cornea thoroughly opaque and about to perforate. The community will have at best a practically blind, illegitimate child; something probably for our blind institutions to care for later. An expense to the State.

It seems to me this outlay for such children might be expended earlier in their existence in an all-round better manner.

For the same reason of diagnosis that the Board of Health, through its bacteriologist or microscopist, examines and reports on supposedly diphtheritic specimens, they might also look for the gonococcus in those cases of suspicious conjunctival secretion.² Furnish the physicians with the necessary slides or cover-glasses, with implicit directions as to the preparation for the examiner.³ The physician will soon be aware whether or not he is dealing with the true gonococcus. With one or two extremely rare exceptions the other forms of conjunctivitis with which the newborn is sometimes afflicted, whether mild or severe, are, with little care, innocent and are easily controlled. Let *Credé's* method be generally employed.

Even if Leopold⁴ found that a one per cent. solution of silver nitrate gave absolute protection from primary infection of the eyes, let us keep to the thoroughly efficient and practically harmless drop of a two per cent. solution of silver nitrate instilled according to *Credé*, and thus practise twentieth century or preventive medicine.

NEUROLOGISCHES CENTRALBLATT.

September 16, 1902. (No. 18.)

1. An Especial Nucleus in the Reticular Formation in the Upper Pontine Region. W. von BECHTEREW.
2. A Lumbofemoral Reflex. W. von BECHTEREW.
3. The Myotonic Pupillary Reaction. A. SAENGER.
4. The Infraspinal Reflex: A Hitherto Unknown Reflex of the Upper Extremities of Men. STEINER.
5. Contribution to the Knowledge of the Supra-orbital Reflex. D. McCARTHY.
6. Anxiety in Cases of Hysteria and Neurasthenia.

A. DIEHL.

1.—Von Bechterew describes a **seventh nucleus in the reticular formation**, which is found at the level of the pons Varolii immediately behind the posterior corpora quadrigemina. In cats it consists of a few large multipolar nerve cells, as large as, or even larger than, the motor cells in the anterior cornua of the spinal cord. This nucleus can also be seen in dogs and in human beings. In the latter the cells are somewhat smaller. He names it The Nucleus Centralus Superior. [J. S.]

2.—Von Bechterew describes the **lumbofemoral reflex** which consists of contraction of the muscles of the thigh when a blow is struck with a percussion hammer upon the upper sacral or lower lumbar regions. The thigh should be flexed upon the trunk and the knees bent on the thigh. If repeated blows are struck, there is a sort of dancing movement of the muscles. Sometimes this is elicited by striking once or twice. The symptom appears to occur in focal lesions that give rise to a spastic paraparesis or paralysis of the lower extremities and most frequently in syphilitic myelitis, when it is localized above the lumbar enlargement of the cord. It does not occur normally.

[J. S.]

2. The Boards of Health might extend this work still further and examine all secretions and all specimens sent to it by physicians for microscopical examination.

3. The author knows of several physicians, who, until other provisions are made, will willingly examine and report on such slides for gonorrheal ophthalmia as may be sent to their offices by physicians, who have not the time or facilities for these examinations.

4. Loc cit.

1. Berliner klinische Wochenschrift, No. 33, 1902.

3.—Saenger reports a case with myotonic pupillary movements, showing the following phenomena: The left pupil was rather wide, about 6.5 mm. in diameter. It was not perfectly round, did not react to light, but slowly contracted to accommodation and convergence, remaining so for one-half to 5 minutes, then slowly dilating again. Energetic contraction of the orbicularis oculi caused a slow contraction of the pupil. The right pupil was narrower, did not react to light, but reacted promptly to accommodation and convergence. The patient complained of diffuse headache; the tendon and skin reflexes were all present, the sensibility was not disturbed excepting in the right ulnar region where there was slight diminution of pain sense. The patient was also hemophilic. The interesting facts were that the patient knew whether the pupils were wide or narrow, and that extreme dilatation of the right pupil caused an uncomfortable feeling in the eye. She could contract the pupils voluntarily, although after this contraction the myotonic condition persisted, and finally if there was a consensual contraction of either of the pupils the other was contracted. Myotonic disturbances of the pupils are also found in cases of tabes and paralysis. [J. S.]

4.—Steiner describes the *infraspinatus reflex* which is elicited by striking the inward edge of the scapula just below the spinus process, and which produces external rotation of the arm. It was present in 50 consecutive cases. Experiments with cocaine proved that it is purely a muscular reflex. It apparently persists in tabes. If the body of the infraspinatus muscle is percussed toward the arm, there is a point where there is contraction of the deltoid on lifting the arm. (Rickett has previously described this reflex.) [J. S.]

5.—McCarthy insists that the contraction of the obicularis obtained by percussion over one part of the frontal region is probably not a reflex in the true sense of the word. It may be due to striking upon the periosteum or voluntary or involuntary movements. He finds that the supra-orbital reflex can be elicited by pricking the skin with a needle, and by the application of heat and cold to the supra-orbital region. He has also observed that it was lost after section of the sensory root of the fifth nerve. [J. S.]

6.—Diehl reports the case of a degenerate man, 27 years of age, who suffered from extreme anxiety in connection with every action of life. He had had convulsions in infancy and had manifested various symptoms of degeneration since. Any attempt to work caused excessive fatigue. Physically he had tremors in the hands, legs and tongue. The hands and feet were cold; there was involuntary twitching of the face; the pupils were wide, and he was very loquacious, describing his symptoms in detail, and was always able to give a reason for his anxiety. [J. S.]

Albuminuria and Glycosuria in General Paralysis of the Insane.—In a comprehensive article Marandon de Montyel gives the result of a large number of investigations upon 162 patients. (*Le Bulletin Medical*, October 1, 1902.) He concludes that albumin and sugar were found in the urine in one-sixth of the cases; that albuminuria was three times as frequent as glycosuria; that glycosuria is always transitory, never lasting a month, while albuminuria always lasts a long time; that albuminuria increases as the disease progresses; that glycosuria was only found in the early stages; that the urine was normal during remissions and most abnormal with dementia; that albuminuria was worst with agitation, glycosuria with calm; that the greatest amount of abnormality was noted with syphilis; that both albuminuria and glycosuria were only noted with syphilis; that albuminuria was most marked in winter, glycosuria in summer; and that, while albuminuria was observed in patients with the sense of touch normal and that of pain normal or subnormal, glycosuria was observed with an increased sensation to pain. [M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending December 5, 1902:

SMALLPOX—United States.

			C.	D.
CALIFORNIA	Los Angeles..	Nov. 8-22.	3	
COLORADO	Denver..	Nov. 15-22.	10	
FLORIDA	Jacksonville..	Nov. 22-29.	1	
GEORGIA:	Atlanta..	Nov. 19-26.	7	
ILLINOIS:	Chicago..	Nov. 22-29.	1	
INDIANA:	Indianapolis..	Nov. 22-29.	3	
KENTUCKY:	Covington..	Nov. 1-29.	64	
LOUISIANA:	New Orleans..	Nov. 24-29.	1	
MAINE:	Biddeford..	Nov. 22-29.	5	
MARYLAND:	Cumberland..	Nov. 1-30.	1	
MASSACHUSETTS:	Boston..	Nov. 22-29.	11	9
	Cambridge..	Nov. 22-29.	1	
	Chelsea..	Nov. 22-29.	1	
	Lawrence..	Nov. 22-29.	1	
	Marlboro..	Nov. 22-29.	2	
	Newton..	Nov. 22-29.	2	
	Quincy..	Nov. 22-29.	1	
	Taunton..	Nov. 22-29.	5	
MICHIGAN:	Grand Rapids..	Nov. 22-29.	11	
	Detroit..	Nov. 22-29.	57	1
MISSOURI:	St. Louis..	Nov. 23-30.	9	
NEBRASKA:	South Omaha..	Nov. 23-30.	3	
NEW HAMPSHIRE	Nashua..	Nov. 22-29.	17	1
NEW JERSEY:	Camden..	Nov. 22-29.	1	
	Newark..	Nov. 22-29.	1	
	Hudson County, Jersey City..	Nov. 23-30.	1	
	Hudson County, Bayonne..	Nov. 23-30.	1	
NEW YORK:	Binghamton..	Nov. 22-29.	2	
	New York..	Nov. 22-29.	5	
OHIO:	Cincinnati..	Nov. 21-28.	3	
	Cleveland..	Nov. 22-29.	15	5
	Hamilton..	Nov. 22-29.	1	
PENNSYLVANIA:	Altoona..	Nov. 22-29.	1	
	Erie..	Nov. 22-29.	9	
	McKeesport..	Nov. 22-29.	1	
	Philadelphia..	Nov. 22-29.	5	1
	Pittsburg..	Nov. 22-29.	35	10
		Four cases imported.		
RHODE ISLAND:	Providence..	Nov. 22-29.		1
SOUTH CAROLINA	Charleston..	Nov. 22-29.	2	
SOUTH DAKOTA:	Sioux Falls..	Nov. 22-29.	2	
WISCONSIN:	Milwaukee..	Nov. 22-29.	9	

SMALLPOX—Foreign.

ECUADOR:	Guayaquil..	Nov. 8-15.	1	
CANADA:	Quebec..	Nov. 22-29.	1	
FRANCE:	Paris..	Nov. 8-15.	1	
GREAT BRITAIN:	Dundee..	Nov. 8-15.	2	2
	London..	Nov. 8-15.	2	2
	Manchester..	Nov. 8-15.	2	2
ITALY:	Naples..	Nov. 10-17.	1	

YELLOW FEVER.

COLOMBIA:	Panama..	Nov. 18-24.	4	
ECUADOR:	Guayaquil..	Nov. 8-15.	4	
MEXICO:	Tampico..	Nov. 15-22.	13	
	Vera Cruz..	Nov. 15-22.	16	11

CHOLERA—Insular.

PHILIPPINES:	Cebu..	Sept. 29-Oct. 14.	5	2
	Manila..	Oct. 12-18.	19	18
	Provinces..	Oct. 12-18.	3,793	2,563

CHOLERA—Foreign.

CHINA:	Hongkong..	Oct. 21-28.	1	1
EGYPT:	Alexandria..	Nov. 1-8.	1	1
TURKEY:	Gaza..	Oct. 25-Nov. 1.	449	
	Lydda..	Oct. 25-Nov. 1.	75	
	Jaffa..	Oct. 25-Nov. 1.	5	

PLAGUE—Foreign.

AFRICA:	Cape Colony, Port Elizabeth..	Sept. 25.	1	1
CHINA:	Hongkong..	Oct. 21-28.	1	1
EGYPT:	Alexandria..	Nov. 1-8.	1	1
JAPAN:	Yokohama..	Oct. 19-Nov. 1.	2	

Aneurysm of the Hepatic Artery.—August Sommer, in the *Prager medicinische Wochenschrift*, (September 12, 1902), reports the case-histories of 2 patients with aneurysm of the hepatic artery. One was a man of 28, the other a woman of 65. The symptoms were pain in the right hypochondrium and epigastrium, intermittent jaundice and repeated intestinal hemorrhage. In one case the condition followed pneumonia; in the other, traumatism. Both patients died, and the diagnosis was confirmed post mortem. Only 8 other cases were found in a search through the literature. [M. O.]

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DIE THERAPIE DER GEGENWART.

October, 1902.

1. Physiological Albuminuria. WILHELM von LEUBE.
2. The Dietetics of Osmosis. H. STRAUSS.
3. Some New Electrotherapeutic Methods.
A. EULENBURG.
4. Seven Hundred and Twenty Laparotomies for Gall-Stones. With Drainage Through the Hepatic Duct in 90 Cases. HANS KEHR.

1.—That albuminuria, occurring in healthy individuals, is physiological and not pathological was demonstrated by von Leube as early as 1877. In some cases this is noted constantly, whether at rest or in motion; in others only after exertion. Out of the night's urine of 100 soldiers examined, 65% contained no albumin; after exercise only 41% were free from albumin. After slight exercise nucleo-albumin only was found in the urine, which had been free from albumin previously. After hard exercise both serum albumin and serum globulin were found in the urine. In fact, with long-continued, careful examination, albumin can be found in the urine of every normal individual. Physiological albuminuria follows position of the body, muscular exercise, the ingestion of food, cold baths, mental exertion and emotional excitement. That the appearance of albumin in the urine follows standing or walking, but not sitting upright, shows that it is not due to the erect posture alone, but rather to the muscular exertion incident to walking, etc. Nervous influences are at times marked. Cold baths act by influencing the nerves in the skin. Large quantities of food ingested often show a direct relation to the albuminuria, because the amount of blood going to the kidneys is increased. Egg albumen, taken before walking, soon appears in the urine as serum albumin and ovalbumin; but, if taken at rest, no albuminuria occurs. von Leube concludes that there are individuals who excrete albumin in the urine under altogether normal circumstances; others who only do so with exertion, standing, walking, etc.; and others who never excrete albumin in the urine unless the kidneys are affected pathologically. Cases must be differentiated from outspoken nephritis, incipient nephritis, chronic interstitial nephritis and the albuminuria of puberty, which is not physiological, being due to development alone. von Leube objects to the term cyclical albuminuria, since the so-called cycle depends upon accidents. The amount of urine passed and the quantity of albumin found are of no diagnostic significance. But regular, alternating intervals of albuminuria are of value, as is the presence or absence of casts. Finally, if there are no suspicious signs of uremia from the pulse, no inflammatory cells or casts in the sediment, no eye-ground changes and no cardiac hypertrophy, the diagnosis of physiological albuminuria may be made, especially when the urine passed after exertion contains albumin, while that passed after rest contains none. [M. O.]

2.—The effect of osmosis on the sound organism is to keep the osmotic pressure of the blood constant. Cryo-

scopy shows 0.56° to be the normal freezing-point of the blood, with variations from 0.54° to 0.58° . By giving a gastro-isotonic diet, milk, egg albumin, meat juice, etc., osmosis is protected. In motor insufficiency of the stomach a low osmotic diet is indicated, little liquid and no alcohol, sugar or salts. On the other hand, such food is indicated when high osmotic concentration of the gastric contents is desired. By the intestines the exit of osmotic molecules may be effected from the blood. The osmotic pressure depends in an extraordinary degree upon the amount of water excreted. Thus polyuria in many cases of nephritis is compensatory, since these patients need, and therefore drink, more water. Degeneration of the renal parenchyma may lead to a decrease in the salt excretion. Besides, salt retention follows renal insufficiency. Decreased albumin assimilation causes decreased osmotic action of the kidneys. Thus practical dietetics are important in the regulation of osmotic pressure. [M. O.]

3.—Eulenburg reviews the electrotherapeutic novelties of the past year, the Tesla-Arsonval treatment and Konrad's electromagnetic therapy, with details of the results thus far obtained. [M. O.]

4.—Out of 720 cases of laparotomy for gall-stones, jaundice was absent in over 80%. Enlargement of the liver was also frequently lacking. Of Kehr's last 195 cases, operation was necessary in but 100. Operation is indicated when attacks of colic are frequent, medical treatment is unavailing and the general condition of the patient fails; in empyema of the gall-bladder; in chronic closure of the chole-dochus when medical treatment has no effect; when much morphine must be given; in chronic jaundice; and when abscess, peritonitis, etc., occur. He advises drainage through the hepatic duct. Full statistical tables follow, showing his excellent operative results. [M. O.]

November, 1902.

1. The Relation of Balneotherapy to General Medicine.
C. BÆUMLER.
2. Fetid Breath of Gastro-intestinal Origin.
THEODOR ROSENHEIM.
3. Theocin (Theophyllin) as a Diuretic. O. MINKOWSKI.
4. Cacodylic Acid in Phthisis. EDUARD ALLARD.

1.—Water has been employed for treating disease internally and externally from time immemorial, especially in the vicinity of mineral springs. The Romans constructed all kinds of baths. Yet, the use of water for bathing at different temperatures for different purposes dates from the eighteenth century; and only about 1850 did balneotherapy and hydrotherapy come into general use, following the efforts of Brandt, Priessnitz and Winternitz. The action of mineral waters ingested depends on the chemical constituents. Bathing affects the nervous and circulatory systems of the skin. Hot baths cause vasomotor dilatation in the skin, with relative withdrawal of blood from internal organs. After the bath this process gradually becomes re-

versed. This assists the assimilation of food, causes the ingestion of more food and increases the body weight, when regularly repeated over a long period of time. Cold baths, with active exercise, cause peripheral vasomotor constriction, followed by a gradual dilatation. Exercise has a similar, but localized effect. Baths are of most benefit in the infectious diseases for reducing temperature and overcoming nervous symptoms. They are also indicated for chronic inflammatory changes, circulatory disturbances, venous stasis, etc. But in each case the condition of the heart and arteries must be ascertained before baths are attempted. Thus they are advised in gout, diabetes, obesity, organic and functional nervous conditions, intoxications, nutritive disturbances, etc. Bäumler's article is very general, not giving many minute details. [M. O.]

2.—Rosenheim reports in detail the case-histories of 3 young women, from 20 to 30 years old, all complaining of fetid breath, due to pathological conditions of the digestive tract. This may follow an affection of the mouth, pharynx, esophagus, stomach or intestines. There may be regurgitation, belching of gas, cancer, etc. The breath is most fetid with chronic gastric affections. Gas may, however, be absorbed by the blood from the stomach or intestines, and set free in the lungs. As a rule, fetid breath is due to disease of the mouth, to regurgitation or to abnormal destruction of gastric tissues, as in cancer. It is commonly due to intestinal conditions also, cancer, stenosis, constipation, diarrhea, etc. Therapeutic experiments and clinical observation show that albumin fermentation is the source of fetid breath in many cases. Therefore, nitrogenous food should be restricted. Diet, salts and regular bowel movements, together with disinfection of the intestines, will effect recovery. [M. O.]

3.—Theocin (theophyllin) is an active diuretic, as Minowski's 14 cases showed. In several of the case-histories reported a great increase in the urine passed was noted following the ingestion of theocin. It is much more powerful than digitalis and even more active than theobromine. It does not affect cardiac activity, though it may upset the stomach. It does not disturb sleep, nor does it injure the kidneys. Dropsy rapidly disappears after its use. Its chemical formula is given. [M. O.]

4.—Allard reports the results of treating 19 cases of phthisis with sodium cacodylate injected subcutaneously. No reaction followed the injections. Only 4 cases were in the early stages, all the others being far advanced or complicated. In no single case was any improvement noted from the cacodylic treatment alone. Fever was unaffected and, though a gradual increase in the body weight was noted, it showed no relation to whether the cacodylic acid injections were given or not. The same thing was noticed regarding the general condition and the appetite. Yet it was not surely due to the drug. Allard believes the good accomplished was due more to the psychical effect of the injections. The 19 case-histories follow.

[M. O.]

THERAPEUTISCHE MONATSHEFTE.

October, 1902. (16 Jahrgang, No. 10.)

1. The Success of Diphtheria Antitoxin.
MAX KASSOWITZ.
2. The Casuistics of Peroral and Pernasal Intubation.
FLOREN.
3. The Effect of Somatose on Gastric Motility.
HEINRICH SINGER.
4. The Value of Respiratory Gymnastics. HOFFMANN.
5. The Use of the Nasal Douche. ARTHUR THOST.
6. The Value of Amyloform in Practice, in Place of Iodoform. AUGUST GERLACH.
7. Anesthesia in the Treatment of Abortion.
ARNOLD KELLER.

1.—In a characteristic article Kassowitz repeats his assertion that diphtheria antitoxin is absolutely ineffective in the treatment of human diphtheria. He believes its

preparation to be based upon erroneous premises, and its employment not only useless, but often injurious. For it does not stop the formation of membrane, does not prevent extension to the larynx, paralyzes, cardiac failure or nephritis. Besides, when given prophylactically, Kassowitz finds that it decreases, not increases, immunity. He concludes that verification of all that has been claimed for diphtheria antitoxin proves conclusively its complete inefficiency in the treatment of diphtheria in human beings, contrary to the opinion generally held. [M. O.]

2.—Floren reports 9 case-histories of patients operated upon after peroral intubation. The passage of the laryngeal tube facilitates breathing during the operation, permits the stoppage of all hemorrhage and overcomes vomiting and nausea. It is especially indicated for operations in the mouth or pharynx. By attaching a funnel to the tube, the anesthetic may be administered somewhat to one side, out of the way of the operator. The method is also of service for goiter operations, removing tumors of the upper respiratory tract, and for patients who breathe badly or secrete much mucus when under the anesthetic. The histories of 2 patients, in whom pernasal intubation was performed, follow. While almost identical, the tube should be left in place some hours after operation, when introduced through the nose. No bad symptoms followed these cases of intubation for operation, except hoarseness during the day of the operation. [M. O.]

3.—Singer reports a series of experiments with somatose given to dogs, cats and a human being. He concludes that gastric motility is increased, because more of the olive oil ingested passed through the stomach when somatose was also taken than before. In the man given iodipin, iodine appeared in the saliva and urine, not only earlier but in greater quantity. Somatose is not only a concentrated food which quickly passes the pylorus, but also a stimulant to weakened gastric motility. [M. O.]

4.—Hoffmann observed that slow, regular, deep inspiration and expiration prevents sea-sickness. Regular respiratory gymnastics also prevent emphysema, when forced expiration is practised several times daily for 15 to 30 minutes. It is also of value as a form of abdominal massage, affecting the intestinal muscles and circulation. Thus, too, it tends to overcome constipation and hemorrhoids. Deep respiration also prevents fainting spells. In the same manner systematic respiratory gymnastics prevent sea-sickness. [M. O.]

5.—Thost describes, with an illustration, a nasal douche which he has devised, resembling those already to be secured in the American market. He uses salt water in it, once daily, for catarrhal conditions with otitis media, etc. In other cases he uses menthol, camphor, oil, cocaine, etc., when necessary. This little instrument is of use in the infectious diseases, laryngeal and tonsillar affections, prophylactically. [M. O.]

6.—Gerlach employs amyloform in place of iodoform, because it is not poisonous, has no odor and is a good antiseptic for dressing granulating wounds, excoriations, intertrigo, eczema, etc. He uses it for drying secretions and healing wounds, abscesses, infected wounds, furuncles, carbuncles, leg ulcers, bone diseases, rectal fistulæ, hemorrhoids, gynecological operations, otitis media, etc. His results with amyloform were excellent. [M. O.]

7.—The diagnosis of abortion depends upon previous pregnancy and the occurrence of hemorrhage. In the treatment curettement is advised if the pregnancy is only 6 or 8 weeks old, digital exploration, if older. While performing this, Kellar considers ether anesthesia best. Disinfection and irrigation are necessary, beside the anesthesia; subcutaneous injections of normal salt solution are of great value, should collapse occur. Some sort of uterine dilator must be used, and packing with gauze will be necessary. The detailed technique follows.

[M. O.]

A SUMMARY OF RECENT LITERATURE ON DISEASES
OF THE KIDNEYS.By JOHN M. SWAN, M. D.,
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The classification of the diseases of an organ or of a system of organs is usually unsatisfactory, because different groups of students make classifications to suit the point from which they observe the disease in question. For the purpose of the present review, we shall adopt the classification of Williamson (1), which is made from the clinical standpoint, as follows: (1) Acute nephritis, including the nephritis of pregnancy; (2) chronic parenchymatous nephritis, including chronic parenchymatous hemorrhagic nephritis; (3) chronic interstitial nephritis, including the contracted white kidney, secondary cirrhotic kidney, the small, red kidney or primary cirrhotic kidney and the arteriosclerotic kidney.

Acute Nephritis. There are 2 papers on the changes in the kidney in acute nephritis. Engel (2) has studied 5 cases of adhesive glomerulitis. He believes that the cellular infiltration in the capsule of Bowman, which usually assumes the characteristic glandular structure, is due to epithelial proliferation. The source of the proliferation of the connective tissue is difficult to determine; but there is reason to believe that it is primarily epithelial.

Landsteiner (3) has studied the degenerative changes occurring in the renal epithelium in the infections and intoxications. He concludes that no parallel can be found between the deposition of fat in the renal epithelium and the destruction of the protoplasm of the kidney epithelium. Albuminous cloudiness may exist without fatty degeneration, but with outspoken fatty degeneration, the little rods of the kidney structure are not necessarily changed.

Caider (4) does not believe that a diagnosis of acute nephritis can truly be made in all cases in which albumin appears in the urine in the acute infectious diseases, such, for example, as scarlet fever. In many cases of scarlet fever albumin appears in the urine during the febrile stage of the disease, but disappears as soon as the temperature returns to normal. Out of 67,162 patients, only 2.6% could be truly said to have nephritis, although albumin appeared in the urine of 11.8%. It should be remembered that albuminuria may be produced by the administration of a diet rich in diffusible albumin, and that in some cases it is the result of some slight inflammation of the genital organs. Williamson (1) takes the same view of the albuminuria of scarlet fever.

There is no new material bearing upon the medical treatment of acute nephritis, but Pousson (5) advocates surgical intervention. He has operated in 4 cases of acute nephritis. The infection in 2 of the cases was secondary to a general disease; in the 2 others it was secondary to disease of the bladder. In 2 cases he practised nephrotomy, and the patients were still healthy; one 3½ years after operation, and the other 7 months. In the other 2 cases nephrectomy was performed, with one operative recovery, but death ensued 4 months later from infection of the other kidney. To these 4 cases the author adds 11 others collected from the literature, a total of 15 cases with 4 deaths, or a mortality of 26.66%. Nephrotomy should be the operation of choice, because it has a lower mortality than nephrectomy, it enables the operator to destroy the pathogenic agents *in situ*, and it does not deprive the patient of the service of one of his kidneys.

Chronic Nephritis. While the condition of the kidney in acute nephritis is an inflammatory one, in chronic nephritis, according to Brannan (6), who is an advocate of the doctrine of Quimby, the lesions are in no sense inflammatory, but are degenerative. He believes that the process is the result of perverted functions of other organs of the body.

In the diagnosis of this form of renal lesion, Rochon-Duvigneaud (7) believes that the so-called albuminuric retinitis, which he believes should be termed nephritic retinitis, is of great value. Its presence always means a grave nephritis. In rare cases the occurrence of nephritic retinitis in a pregnant woman may induce abortion.

Osler (8) emphasizes the importance of basing one's

judgment less on the urine than on the general condition of the patient after the age of 50. It is quite a frequent occurrence to find albumin and casts in the urine of patients beyond this age, but this is not always a serious condition. It may be an expression of presenile changes in the kidneys, due to arterial degeneration, and is often a renal inadequacy. The points one should lay stress on as indicative of serious diseases, are: (1) Persistent low specific gravity of the urine, 1.008 to 1.012; (2) the state of the heart and the arteries; (3) the presence of albuminuric retinitis. It is not always easy to make a diagnosis, and 2 conditions have to be carefully differentiated: (1) A primary sclerosis, discovered at the fortieth year, in which kidney changes are secondary, and are expressed by a transitory albuminuria, and a not very low specific gravity of the urine which is not in very large amount; (2) the granular contracted kidney. Here arteriological factors are all-important. It is met with in young persons consecutive to scarlet fever and other infectious disorders; in middle-aged persons who have had gout; in workers in lead, and in others in whom no definite factors can be determined.

Pousson (5) extended surgical treatment to the chronic diseases of the kidney. He operated in 3 cases. The first case was one of marked nephritic hematuria, and was most successful, the patient still being alive and in good health 3 years after the operation. The other 2 operations were performed for the relief of alarming symptoms of uremia. He believes that in certain affections the insufficiency of the kidney properly to clarify the blood becomes a formal indication for nephrotomy or nephrectomy.

Edebohls (9) has treated 18 patients suffering from chronic nephritis surgically. All of the patients were women, whose ages varied between 19 and 45 years. Right nephropexy was performed upon 4 patients and bilateral nephropexy upon 14. Extensive denudation of the kidney cortex, by stripping off the capsule proper, so as to lay bare about ½ of the surface of the kidney, was a feature of all these nephropexies. In 3 or 4 instances renal cysts of various sizes were punctured and evacuated prior to anchoring the kidney. Upon his last 2 patients he performed total excision of the renal capsule. There was no mortality in this series. He believes that the condition was cured in 8 cases, and that the operation results in an increased and adequately maintained blood supply of the kidney, leading to gradual absorption of the interstitial or intertubular inflammatory products and exudates, thus freeing the tubules and glomeruli from external compression, constriction and distortion and permitting the re-establishment of a normal circulation.

Brannan (6) believes that, if the disease of the kidney is well established, our object in treatment should not be to restore the kidney tissue that has been destroyed, but to do something to improve the nutrition of that which is left and to lessen the work thrown upon it. The measures employed to this end in general terms are: The restriction of proteid foods, the prohibition of strong alcoholic liquors, the free use of diluents, especially alkaline mineral waters, and the promotion of the action of the skin and bowels. Few drugs are needed, although nitroglycerine has been known to act very satisfactorily in patients who have a high tension pulse.

Uremia.—Strubell (10) has experimented upon 5 rabbits and 18 dogs, all of which had their kidneys removed, to produce experimental uremia. He concludes that uremia in animals resembles uremia in man, and that animals, in which uremia is induced experimentally, live longer upon carbohydrates than upon albumin, fat, etc. Therefore, he believes that, when uremia is threatened in acute or chronic nephritis, a diet of carbohydrates, or at least of vegetables, should be given from time to time.

Neisser and Doring found that the usual reaction between human blood serum and the blood of animals of another species was curiously modified in a case of uremia. The patient had been bled and the serum was tested with the blood of a rabbit. One-tenth cc. of the native serum dissolved the blood cells of the rabbit in 1 cc. of blood in the usual manner, the fluid becoming quite clear within 2 hours. When, however, nonactive serum—namely, that in which the thermolabial complement had been destroyed by heat—was added to the native serum, and then the mixture added to the rabbit's blood, the usual re-

action was not observed, the corpuscles being undissolved and the fluid remaining cloudy. Laqueur (11) reports 2 observations on the reaction of the blood of uremic patients on the blood of rabbits. This curious reaction would seem to indicate that the blood in uremia loses some of its power for protecting against poisons.

Bradford (12) defines uremia as a toxic condition usually arising in cases of acute or chronic renal disease. Uremia may be the first symptom that directs the attention to the existence of a serious underlying disease which has not produced obvious symptoms up to the time of the onset of the final toxic state. It may also arise as a sequel to operative interference in patients suffering from the chronic diseases that give rise to this condition or as a result of indiscretion in diet. He does not believe that there is any satisfactory evidence to confirm the hypothesis that uremia is dependent on the arrest of an internal secretion. The blood and fluids of the body generally in uremia are loaded with extractives, and it is no uncommon phenomenon for the blood to contain 0.5% of urea instead of the normal 0.15%. A very considerable amount of further work is required before it can be definitely stated that the disintegration of the tissues leads to the production of toxic bodies capable of causing the clinical features of uremia. The only securely established facts, at the present time, are, that mere retention of the normal constituents of the urine is not capable of producing uremia; that in uremia there is an extensive disintegration of the proteid tissues of the body; and that, although in many cases of uremia there is in the final stages some suppression, partial or complete, of the urinary secretion, this is by no means invariable, and that fatal uremia may be seen with an abundant secretion of urine. Treatment with renal extracts, either prepared from the kidney or from the serum of the renal vein, as has been used by some observers, has not afforded any definite evidence of its utility.

Associated Diseases.—Cardiovascular disorders are by far the most common complication of nephritis. According to Broadbent (13) the primary and dominant effect of disease of the kidneys on the motion of the blood is obstruction in the capillaries and arterioles which is due to the presence in the blood of nitrogenized waste which it is the office of the kidneys to eliminate. The primary seat of obstruction is in the capillaries, and the contraction of the arterioles is secondary to this. As the result of this obstruction there is, first, a contraction of the small arteries; second, an increased contraction of the heart, producing high bloodpressure. The special character of a renal, or high tension, pulse is the fulness of the artery between the beats and the absence of the sudden subsidence of the vessel under the fingers as the beat passes. The pulse, in the early stages of chronic Bright's disease, will usually be small, the artery being in a state of contraction. The beats will be inconspicuous from the small size of the vessel, and from the fact that it is not readily flattened on account of the internal pressure. Such a pulse is often described as weak, yet it can be felt between the beats and can be rolled under the fingers and, when the attempt is made to extinguish the pulsation by compressing the artery, the pulse seems to become stronger as the increasing pressure is applied. Dilation of the arteries as well as fibroid change and muscular hypertrophy in their walls gradually occurs. Along with these changes there is gradual hypertrophy of the left ventricle with its attendant phenomena. One of the early indications of dilation of the heart is reduplication of the first sound, best heard to the inner side of the apex, denoting a failure of synchronism between the two ventricles in their systole. As the changes in the heart and vessels advance, the symptoms attending the disease of the kidneys develop. He believes that convulsions in nephritis are due to stasis of the cortical cerebral circulation.

Conklin (14) is of the opinion that the widespread and very constant cardiovascular change in interstitial nephritis is due to some profound toxemia which renders the blood irritating to the entire vascular apparatus of the body as well as to the capillaries of the kidneys. In a typical case of granular contracted kidney, even with extensive cardiovascular lesions, the indication is to keep the vascular tone in good condition. For this purpose the only remedies needed are the vasodilators. In the latter stages

of a chronic nephritis, when dilated chambers, leaking valves, and serious degeneration of the cardiac muscle are present, the indication is to improve the nutrition and tone of the heart and to lessen its work. This is best accomplished by absolute rest of body and mind and with the so-called heart tonics, of which digitalis, strophanthus, caffeine and strychnine are the best.

Stoerk (15) examined the kidneys of 20 hereditary syphilitic embryos and children. The organs showed delayed development and were abnormal in the form or arrangement of their component parts. The histological findings pointed to probable specific nephritis.

Moore (16) has studied nephritis in malaria. Nephritis is not likely to occur in a single tertian infection. A double tertian infection may produce a nephritis and the more chronic the case becomes, the more likely is it to produce nephritis. Malaria of long duration or of frequent occurrence will produce chronic renal disease. Estivo-autumnal malaria probably gives the largest percentage of cases of nephritis.

Von Brumm (17) examined the kidneys of 21 patients who died following abdominal operations. In the majority of cases he was able to demonstrate degeneration with final necrosis of the renal tissues. He believes that renal necrosis, which resembles that due to intoxication, is always associated with peritonitis.

Aunay (18) concludes that in hypertrophic biliary cirrhosis, albuminuria is always absent, even in the terminal stages of the disease, and that the solid materials in the urine are normal in amount when the function of the liver is not too profoundly altered. Polyuria is the rule, about 2 liters being passed in 24 hours. At the autopsy the kidneys will be found normal both macroscopically and microscopically. They are often hypertrophied. The sclerosing poison which attacks the liver does not seem to be a sclerosing poison for the kidney.

Hyslop (19) has studied the mental conditions associated with Bright's Disease and uremia. Any defect in the renal system associated with arterial degeneration and a tendency to cardiac failure is apt also to be attended by brain failure. Renal disease may produce acute transient delirious mania, an acute toxemia, or uremic insanity; or a progressive cerebral degeneration. In the latter type the mental symptoms during the earlier stages vary from a mild dementia to mania or delirium. In due course, however, complete dementia results not unlike paralysis of the progressive type known as general paralysis of the insane. In some cases the spinal symptoms become marked, and

Abnormal Constituents in the Urine. Albumin. In 1896 Vasiljeff published a method for the quantitative estimation of albumin in the urine, which Robin says is published in Simon's Clinical Diagnosis.

Drzsevetzki (21) performed a number of experiments in order to determine the value of this method. By making comparative determinations gravimetrically, and by the use of Vasiljeff's method, he found that the latter gives an error of from 0.4 to 3 gm. per liter below those obtained by the former. The cause of the error is not in the salicylsulphonic acid, which precipitates the albumin completely, but in the indicator. The true-yellow (*echt-gelb*) of commerce is not a pure product, and therefore does not give the characteristic reaction with the free acid after all the albumin has been precipitated.

Edel (22) has made a study of the clinical manifestations of cyclical albuminuria. All the patients that were studied showed considerable albumin in the morning urine, and very little in the afternoon. In one case the urine was usually free from albumin between the hours of 3 and 6 in the afternoon. Alteration of the time of dinner caused a corresponding alteration of the period, during which the albumin was absent, and the omission of dinner showed a large quantity of albumin existing throughout the day. When the patient fasted, the quantity of albumin remained considerable, unless a diuretic was given. After the administration of a diuretic, the quantity of urine increased, its reaction became alkaline and the quantity of albumin decreased. The same effect was produced by external diuretics, such as hot baths, although subsequently the urine would be dark and the quantity of albumin increased. In his effort to discover the cause of cyclical albuminuria, the author made a careful study of the relation of the pulse

to exercise. The frequency of the pulse did not appear to bear any relation to the albuminuria. The activity of the heart, on the other hand, bore a very close relation to it, and it was found that stimulating the heart, either by vigorous walking or by mountain climbing, caused the albuminuria to decrease. He, therefore, believes that in the treatment of cyclical albuminuria, the use of diuretics should be combined with exercise of the heart. For the diagnosis of cyclical albuminuria, specimens of urine passed at different times of the day must be examined. Nearly all of the causes of intermittent albuminuria, according to Gillett (26), are cyclical albuminuria, and the majority are also orthostatic. Oliguria is more constant even than the albuminuria in these cases; and urobilin is present even when the albumin is not.

Orthostatic albuminuria is a variety of albuminuria produced by the upright posture.—Aubertin (23) reports 4 cases of this disorder, 2 in men and 2 in boys. The albumin appeared only after standing, without symptoms of fatigue. He concludes that many cases of orthostatic albuminuria represent the terminal stage of a previous nephritis, or some disturbance of the renal circulation.

Le Noir and Courcoux (24) report the case of a girl, aged 16 years, who had suffered from scarlet fever at the age of 7. Without apparent cause, she developed an albuminuria which was considered to be of the orthostatic variety. Williamson (1) points out that many cases regarded as **functional albuminuria** are probably due to leukorrhea, gleet or the mixture of semen and possibly prostatic fluid with the urine; others are due to a latent organic kidney affection following an acute Bright's disease, or an early stage of a chronic Bright's disease.

Globulin. Chauffard and Gouraud (25) report a unique case of massive globulinuria in a woman of 29. She had always been delicate, yet never very ill. During 2 months she had noticed slight headache, cramps in her legs and occasional troubles of vision. She weighed about 90 pounds, was very nervous, but only slightly hysterical, and her arterial tension was much lowered. Her urine was clear and without sediment. Nitric acid and heat showed quantities of albumin at once. But when 5 or 6 drops of acetic acid were added, the urine became a mass of yellow, transparent jelly. On milk diet, arterial tension increased, as did the quantity of urine. The urine, chemically examined, showed chlorides. The amount of albumin, at first 50 gm. to the liter, rapidly diminished. Cryoscopy, the absence of casts and the low arterial tension, showed that there was renal insufficiency, due to circulatory stasis. From a series of tests, the authors concluded that the albumin found was pure globulin. There was no nephritis. Examination of the blood showed that it was normal. The authors conclude that this patient had hyperglobulinemia, a disease of the blood plasma, with a pathological deviation from the normal equilibrium of the albumin of the circulation.

Albumose. The albumoses are hydrated albumins before they become peptones. For the recognition of albumose in the urine, there are two test reactions, that of Bence Jones and that of Jaquemot. Bence Jones, after filtering the urine, finds a cloudiness when it is heated to 60°, which disappears on boiling. Jaquemot adds ether to urine containing albumose, and a gelatinous ring is at once formed. Albumin, mucin and the phosphates may give this reaction, but they can be removed by adding sodium chloride, filtering, adding acetic acid, boiling, cooling and filtering again.

Sicard (27) believes that tests for albumose should always be made in urine examination.

Jochmann and Schumm (28) report the case of a woman, 37 years of age, who suddenly developed severe pains in the spinal column. She presented tenderness over the lumbar vertebræ, and signs of severe nephritis. In the course of 6 months, an extreme deformity of the skeleton had occurred, together with hemorrhages into both eyes. A diagnosis of osteomalacia was made and confirmed by the autopsy and the microscopical examination of the bones. During the last weeks of her life the patient secreted a turbid, acid urine, which contained albumose.

Glucose. Mohr (29) directs attention to the fact that febrile disease may cause the amount of sugar in the urine of a diabetic to increase or diminish. In some cases no influence is exerted. Mohr reports 6 cases in which changes

in the amount of sugar-forming food could not have caused the changes in the glycosuria. In all but one instance the diabetes was of the mild form before the occurrence of the complicating febrile affection, and in 4 instances the latter affection was itself mild in character. In 2 cases a temporary decrease in the tolerance for carbohydrates was noticed; in 2 other cases the previous tolerance was much reduced, and was regained only after a long period; in one the tolerance was permanently reduced, while in the remaining case, which up to that time had been of favorable course, the occurrence of phlegmonous angina caused a rapid and uncontrollable increase in the glycosuria and general symptoms, and signs of acid intoxication soon appeared. The observations recorded by Mohr, as well as previous experimental and clinical records, make it quite clear that we should earnestly consider infectious diseases among the direct causes of diabetes.

As a result of animal experiments, Mueller (30) believes that the glycosuria that follows acetone poisoning is a result of the narcosis produced, and is immediately due to the reduction of bodily temperature or to the severe dyspnea.

Herter and Richards (31) have determined that adrenalin given intraperitoneally is capable of inducing a marked glycosuria in which the percentage of sugar may reach 9.17. This glycosuria is not dependent upon the presence of a diastatic ferment stored or formed by the suprarenal gland. After fatal doses the cells composing the islands of Langerhans were found to be the seat of granular degeneration; their nuclei showed extensive loss of chromatin substance; and in some parts of the gland, they were much more injured than the surrounding cells of the secreting acini.

German (32) describes a method for testing for sugar with Haines's and Purdy's solution.

Pentose.—Bial and Blumenthal have shown that pentose, which causes the same reactions as glucose, except by fermentation and the polariscope, is never found in diabetes, their researches proved that food did not affect the pentosuria, and that the pentose existed in the blood. While the subject remains obscure, Romme (33) believes, from the work of Bial and Blumenthal, that pentose is formed from nuclein. It is found in the blood and urine of the individual only when, for some unknown reason, it is not oxidized.

Meyer (34) reports a case of pure pentosuria, affecting a man, 39 years of age, who was neurasthenic and markedly emaciated. The patient showed a pronounced tolerance for carbohydrates, and the pentosuria was unaffected in spite of the liberal ingestion of this kind of food. The pentosuria in this case was reduced by a mixed diet, consisting of milk and definite quantities of carbohydrates.

Krafkoff (35) found that, if a piece of rabbit's muscle is boiled with hydrochloric acid in the presence of a small amount of phloroglucin, a characteristic pentose reaction at once appears. This suggested to him the idea of looking for pentose in the muscles and organs of animals, with the view of establishing the distribution and fate of the carbohydrate in the animal economy. He describes a process for isolating pentose. Pentose was found in the muscles, heart, liver, intestines, kidneys, brain, bones, crystalline lens and pancreas. The muscles were found to contain proportionately more pentose than any other structure. It is thus evident that the organism is richly supplied with pentose, and the conclusion is justified that pentosuria bears the same relation to metabolism as does glycosuria.

Acetone.—Waldvogel and Hagenberg (36) report a series of estimations of the acetone in the urine of a number of subjects, and give figures which show a decided increase of the acetone to above even high normal figures, after the use of additional quantities of butter in a normal mixed diet ranging from 50 to 150 gm. in the day. This they term an alimentary acetonuria. It is particularly insisted that the diet was sufficient in amount and that this was, therefore, not an acetonuria of inanition. The authors are inclined to consider the acetonuria as of enterogenous nature, though they admit that there is no proof of this, and it may have been produced from the fats after their absorption. They recognize two forms of acetonuria; one, due to rapid destruction of body fat; the other, to the presence of large amounts of fatty acids in the intestine.

Alkapton.—It has been long believed that alkaptonuria has no clinical significance. Recently, however, an effort

has been made to determine the meaning of the appearance of this body, which is formed from homogentisic acid, in the urine. There are two papers bearing on this subject, one by Meyer (37) and the other by Garrod (38). Meyer reports a case in which alkaptonuria was present. The patient, a boy, with healthy parents, when first seen at 1½ years of age, had suffered on various occasions from intestinal catarrh, otherwise he was perfectly healthy. His urine, however, from the time of his birth, had occasionally a dark color, and produced brown spots on his clothing which could not be removed by washing. He also had nocturnal enuresis. The longer the urine remained exposed to the air, the darker it became. When examined, the patient was found to be active, intelligent and well developed. The urine was examined at frequent intervals for a period of 2 years. It was, when not exposed to the air, of a straw yellow color; when exposed to the air, the upper surface rapidly became brown, a change that could be hastened by the addition of ammonia or other alkalis. If solution of ferric chloride was added to it, it became transiently colored a dirty green. The bismuth test was always negative. There was no fermentation of yeast, and no turning of polarized light, proving that the substance was alkapton. Meyer, therefore, undertook a series of elaborate chemical investigations, in order to determine the nature of alkapton, which he concludes is the ethylester of homogentisic acid. Further experiments showed that it was possible to increase the quantity of homogentisic acid in the urine by adding plasmon to the diet in order to increase the amount of nitrogenous food. Investigations of the urine itself showed that there was no increase in the ethereal sulphates nor a pathological increase in the excretion of ammonia. There appears to be no reason to suppose that it represents any profound morbid alteration in the organism.

Garrod gives an account of a case of alkaptonuria occurring in an infant. The condition developed very soon after birth. The urine, which was collected between the eighth and eleventh days, had the characteristics common to alkaptonuria. He believes the condition manifested itself after the entry of proteid food into the alimentary tract and that the "evidence available points to tyrosin, formed as a product of pancreatic digestion, as the parent substance of the homogentisic acid which imparts to alkaptonuria its peculiar properties." A certain amount of homogentisic acid can be destroyed by the human tissues, but when their powers become overtaxed, this substance is excreted. Garrod's studies of this case indicate that the change from tyrosin to homogentisic acid takes place in the tissues after the absorption of the former, rather than that the change in question is brought about in the alimentary canal.

Indican.—In making indican tests one may often observe that the fluid assumes various colors from brown to violet. The pigment is usually absorbed by amyl alcohol, and commonly becomes brownish in color as it is absorbed. There has been no definite work concerning the nature of this pigment, and, although various reports have been made concerning it, its exact nature has not been determined. Rössler (39) found that it was neither indigo red nor uroerythrin. After considerable experimental investigation, he reached the definite conclusion that the pigment is skatol red.

McPhedran and Goldie (40) report the case of a man, aged 24 years, who complained of general weakness, heaviness of the limbs, palpitation, dull headaches, and an inaptitude for work. On examination few or no objective signs were to be found. He passed urine that was turbid and of an extremely bluish color. The pigment was readily extracted from the urine by chloroform and was believed to be indigo blue.

Cryoscopy.—Cryoscopy, which is a difficult proceeding, well nigh impossible to the clinician unless he has access to a well equipped laboratory, is being studied by those who have laboratory facilities at hand.

Waldvogel (41) presents a series of studies of the freezing point of the urine and its relation to the total amount of urine, to the NaCl and to the total nitrogen. He bases his conclusions upon cases of nephritis, cases in which one kidney was practically destroyed by disease such as pyonephrosis, and in several of which the damaged kidney was removed and the urine studied after the operation as

well, and also upon observations of persons in health and with various diseases other than nephritis, and upon experiments (nephrectomy, double and single) in animals. He decides that values obtained from the freezing point, the freezing point multiplied by the daily amount of urine, the freezing point divided by the total amount of sodium chloride or by the total nitrogen, are all variable and are not typical either in inanition, or after extirpation of a kidney. So far as the condition produced by double nephrectomy in animals is analogous with uremia in man, one may say that bloodletting and saline or water injections do not decrease the concentration of the blood in uremia as indicated by the freezing point. If one kidney is known to be destroyed (as by pyonephrosis) and the product of freezing point by total urine is still above one degree, the prognosis as to functioning power of the other kidney is good. If, within a few days after a kidney extirpation, the same value is found below one degree, one may say that the remaining kidney is unequal to its task. His investigations did not support the view that there is an osmotic exchange of chloride-containing and chloride-free molecules in the urinary tubules.

Marischler's (42) studies were carried on by calculating the intake and outgo of nitrogen, chlorides, phosphorus, calcium and ammonia, throughout a preliminary period; then administering sodium chloride (6 gm. daily) throughout a second period, and afterward carrying the investigation through a third period in which no extra NaCl was given. His results seemed to show that in parenchymatous nephritis the kidney excretes sodium chloride well, even when the diuresis becomes reduced. Occasionally there is a relative reduction in the chlorides, or even an actual retention as compared with the previous period. This is explainable upon the basis of retention of water. After the administration of sodium chloride, the diuresis may be much reduced in parenchymatous nephritis, even when the amount of water is decidedly increased; on the contrary, in interstitial nephritis, the water excretion becomes very much more marked than it was before.

Kiss (43) believes that cryoscopy, the methylene blue and phloridzin tests for renal insufficiency, while valuable discoveries and truly functional diagnostic methods, cannot replace cystoscopy, catheterization of the ureters, and the old methods of urine analysis. The determination of the specific gravity by Westphal's scales gives as good results as cryoscopy. The indications for operation, dependent upon cryoscopy of the blood, are as yet not clear. Failure of the methylene blue test can occur without any affection of the kidney, while it may appear normally with uremia. Nor is the phloridzin test any more reliable.

Strubell (44) finds that the refractive index of the urine is a specific quality that does not necessarily vary as do the specific gravity and the freezing point. He concludes that the determination of the refractive index is easy, exact and constitutes a new physicochemical constant.

Organized Sediments. Casts. Coplin (45) has studied the microchemical reactions of tube casts, staining them with muchematein according to the directions given by Meyer. He found that all hyaline casts may be divided into 2 groups; (1) those that stain faintly with the mucin stain, these are usually small, smooth and free from cells and fat; and (2) those that stain intensely giving the mucin reaction to a degree that renders them almost opaque. All granular casts that are not fatty give an intense mucin reaction. Sections of such casts show that the mucin reaction is not restricted to the periphery, but is present in the matrix. Epithelial casts commonly give a decided mucin reaction, the intensity of which seems to be directly proportionate to the granularity of the cells, indicating that the more advanced the degenerative or necrotic change, the more evident the mucin reaction. The mucin reaction commonly quite disappears before the advent of fat. The origin of the mucin in casts has been considered, but it cannot be said definitely to be determined. Its presence in the epithelial elements of casts and its apparent increase in those undergoing fragmentation and disintegration would seem to indicate that in some way it, at least in part, is a product of necrosis or degeneration—probably both—arising in the cellular elements cast off from the renal tubules. The exact nature of the mucin found in the casts is still undetermined. Fatty casts are found composed of masses and groups of fat glo-

bules possessing slightly different characters depending upon the quantity of fat and the grouping, and held in position by some matrix, the exact microchemical nature of which it has not been possible to determine. Some fatty casts are made up almost exclusively of small globular black masses evidently fat, fairly distributed throughout the length of the cast. Others contain aggregations of fat usually in the shape of variously sized globules. In another group of casts, epithelial cells can be seen, the protoplasm of which contains fat. In such cells the fat is usually finely distributed through the perinuclear protoplasm, although in some of them it was possible to detect the intranuclear presence of fat. The observations of the author confirm the view that fatty casts result from fatty metamorphosis of renal epithelium. It seems equally probable that other casts are also the result of necrosis or degeneration of renal epithelium, and that, during the progress of the retrograde change, mucin becomes a conspicuous constituent. As mucin and fat do not appear to be coincident bodies in the same cast, it would seem reasonable to assume that the presence of one or the other is determined by some condition, the exact nature of which is not apparent. Both may be present in the same urine, but it has not been possible to say why they do not occur strictly together.

Micro-organisms. The presence of specific micro-organisms in the urine in cases of zymotic disease has been frequently described, particularly in connection with typhoid fever. The subject is of great practical importance, as well as of scientific interest, because on its solution depends the answer to the question of the routine disinfection of the urine in these diseases. Lewis (46) believes that the healthy kidney possesses no power of casting out living organisms, although it is able to remove the products of their action. Any escape of bacteria through the kidney is only accomplished when there is functional interference with the integrity of the renal epithelium or some congestive or inflammatory condition. Bacteria, escaping by the way of the urine, are usually accompanied by some other abnormal constituent, such as blood, pus or albumin. One hundred and fifty-eight specimens of the urine of 45 typhoid fever patients were examined, in only one of which the bacillus typhosus was found. The author believes that there are 2 types of typhoid bacilluria: one occurring in severe cases of the fever, commencing during the height of the disease, accompanied by albuminuria, pyuria or hematuria, and diminishing as the albuminuria diminishes, finally disappearing. In the second type, the bacilluria begins in the later stages of the disease, and persists into and during convalescence, or even for months without causing severe symptoms; albuminuria is not an invariable accompaniment. This type is the one most likely to disseminate the disease. The organisms reach the bladder through the kidney, but Lewis believes in a smaller proportion of cases than 25%. A case reported by Petruschky proves that the urine is infective, and it is, therefore, imperatively necessary to disinfect any urine containing the bacillus. For this purpose heat is the best medium. Lewis has examined 51 specimens of urine from 16 cases of scarlet fever. From these specimens he obtained 2 pathogenic varieties of streptococci, which he describes at length. He also examined 43 specimens of urine from 17 cases of diphtheria without in any case isolating the bacillus of Löffler. Some subsidiary experiments showed that the urine of healthy persons is more often sterile than that of the sick, and that the sterile urine of healthy persons and of typhoid fever patients is a suitable culture medium for the bacillus typhosus.

Cellular Elements. In a case of renal tuberculosis in which the infection was brought to the kidney by the blood, Milian (47) found that hematuria was accompanied by a marked elimination of lymphocytes in the urine, while polymorphonuclears were few. There were also some pigment casts. On the other hand, in a patient who was suffering from epithelioma of the kidney, the urine contained neither cellular elements nor casts. In a case of hematuria from acute nephritis, the urine contained a large number of polymorphonuclear elements. In cardiac albuminuria the only cellular elements found were red corpuscles, except in cases in which there was a septic element in the disease. Renal sclerosis gave no cellular elements during

the albuminuric periods. In a patient, who had suffered for a month from a subacute nephritis of unknown cause, the urine contained many leukocytes, polymorphonuclear and mononuclear in equal numbers with a relatively high percentage of eosinophiles. Febrile albuminuria may be accompanied by leukocytes, or leukocytes may be absent. The albuminuria of acute articular rheumatism and of diphtheria was accompanied by the presence of leukocytes in the urine. In rheumatic albuminuria, numerous polymorphonuclear elements were found. The albuminuria of typhoid fever and of pneumonia was not accompanied by leukocytes. This distinction indicates clearly that in the course of the different infections, and also in the same infection, the pathogenesis of albuminuria is not constant. The albuminuria of typhoid fever and pneumonia appear to be due to stasis, the former on account of arterial hypotension, the latter on account of venous stasis. In female urine, particularly in the case of tuberculous patients, the trichomonas vaginalis is often found in great abundance in the sediment thrown down by the centrifuge.

Tumors. Hansemann (48) classifies tumors of the kidney as follows: (1) Tumors from the parenchyma of the kidney, cystoma, adenoma, carcinoma; (2) tumors from the stroma of the kidney; (a) connective tissue tumors, fibroma, sarcoma; (b) vascular tumors, hemangioma, lymphangioma, endothelioma (malignant). (3) Tumors resulting from embryonal errors; (a) tumors of one kind of tissue, hypernephroma, lipoma, chondroma; (b) teratoma, with and without malignant change. (4) Pseudotumors, cystic kidney, echinococcus, hydronephrosis. Lenoble, Caraes and Le Bot (49) report a case of polycystic kidney in a fetus. The authors are of the opinion that the cystic degeneration of the kidneys probably began in the tubules, about the third month of intra-uterine life, and increased rapidly. The membrane of the cysts is probably lined by the remains of the tubular epithelium.

Renal Lithiasis. Dessirrier and Legrand (50) report an interesting case of latent renal lithiasis in a soldier, aged 21 years, who was suddenly overcome by fatigue while marching, and had some epistaxis. Examination revealed nothing abnormal. The urine contained a little albumin. He was doing well, when, a week later, he began to urinate frequently, and edema appeared in the cheeks and ankles; there was some dyspnea and galop rhythm was noted; the diagnosis of acute nephritis was made, and the patient died in syncope within a week. Both kidneys were found filled with calcium oxalate calculi of all sizes, numbering in all over 500. The left kidney was hypertrophied, the right small and sclerotic. Outside of alcoholism, there is no cause known for the occurrence of calculi in this case.

Catheterization of the Uterus. Albarran (51) showed 2 tuberculous kidneys at the *Société de Chirurgie* that he had removed by lumbar nephrectomy. In both cases the development of the renal tuberculosis was slow, without clear symptoms, and the examination of the kidney showed nothing. The diagnosis was made by ureteral catheterization.

1. R. T. Williamson. Practitioner, November, 1901.
2. Engel. Virch. Arch. f. path. Anat., Bd. 163.
3. Karl Laudsteiner. Wiener klin. Woch., Oktober 10, 1901.
4. F. F. Caider. Practitioner, November, 1901.
5. Pousson. Gaz. Heb. de Méd. et de Chirurg., June 20, 1901.
6. John W. Brannan. N. Y. Med. Jour., January 4, 1902.
7. Rochon-Duvigneaud. Jour. des Praticiens, November 2, 1901.
8. William Osler. N. Y. Med. Jour., November 23, 1901.
9. G. M. Edebohl. Med. Rec., December 21, 1901.
10. Strübel. Wiener klin. Woch., July 18, 1901.
11. A. Laquer. Deutsch. med. Woch., October 17, 1901.
12. J. R. Bradford. Practitioner, November, 1901.
13. W. H. Broadbent. Practitioner, November, 1901.
14. W. J. Conklin. Amer. Med., December 14, 1901.
15. Oskow Stoerk. Wiener klin. Woch., October 10, 1901.
16. John T. Moore. Amer. Med., December 29, 1901.
17. Walter von Brumm. Archiv. für klin. Chir., Vol. 65, No. 1, 1901.
18. Henry Aunay. Paris Thesis, 1900-1901, No. 509. Gaz. Heb. de Méd. et de Chirurg., December 1, 1901.
19. T. B. Hyslop. Practitioner, November, 1901.
20. J. J. Pringle. Practitioner, November, 1901.
21. A. Ph. Dozsvitski. Vrach, July 14, 1901.
22. P. Edel. Münchener med. Woch., 1901. Nos. 46 and 47.
23. C. Anbertin. La Presse Méd., September 21, 1901.
24. Le Noir and Courcoux. Gaz. Heb. de Méd. et de Chirurg., October 21, 1901.
25. A. Chauffard and F. X. Gourand. Presse Méd., July 21, 1901.
26. H. Gillet. Arch. de Méd. des Enfants, June, 1901.
27. A. Sicard. La Presse Méd., October 16, 1901.
28. G. Jochmann and O. Schumm. Münch. med. Woch., August 6, 1901.

29. Mohr. Zeitschr. für klin. Med. Bd. 42, H. 5-6.
30. Mueller. Archiv. für exper. Path. und Phar. Bd. 46, H. 1-2.
31. C. A. Herter and A. H. Richards. Med. News, February 1, 1902.
32. William H. Gernan. Jour. Amer. Med. Ass., February 1, 1902.
33. R. Romme. Presse Méd., July 27, 1901.
34. Meyer. Berlin. klin. Woch., July 22, 1901.
35. N. P. Krafkoff. Vrach, August 4, 1901.
36. R. Waldvogel and J. Hagenberg. Zeitschr. für klin. Med., Bd. 42, H. 5-6.
37. Meyer. Deutsch. Arch. für klin. Med. Vol. 70, H. 5-6.
38. A. E. Garrod. Lancet, November 30, 1901.
39. Karl Rössler. Wien klin. Woch., August 31, 1901.
40. A. McPhedran and W. Goldie. Brit. Med. Jour., October 12, 1901.
41. Waldvogel. Arch. für exper. Path. und Phar. Bd. 46, H. 1-2.
42. Julius Marischler. Arch. für Verd.-Krank. Bd. 7, H. 4-5.
43. Julius Kiss. Berlin. klin. Woch., December 2, 1901.
44. Strubel. Deutsch. Arch. für klin. Med., Bd. 69, H. 5-6.
45. W. M. L. Coplin. Phila. Med. Jour., March 8, 1902.
46. C. J. Lewis. Edin. Med. Jour., December, 1901.
47. Milian. Gaz. Heb. de Méd. et de Chirur., October 24, 1901.
48. David von Hansemann. Zeitschr. für klin. Med., Bd. 44, H. 1-2.
49. Lenoble, Caraes and Le Bot. La Presse Méd., September 18, 1901.
50. Dessimier and Legrand. Med. Moderne, July 17, 1901.
51. Albarran. Gaz. Heb. de Méd. et de Chirur., October 17, 1901, p. 99.

INFECTIOUS DISEASES.

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Malaria.—From 1870 to 1899, 909,078 cases of malaria occurred in the Austro-Hungarian Army, says Myrdacz. (1) From 298 per 1,000 in 1872 the proportion fell to 20 per 1,000 in 1899. This is less than in the Italian, Russian or British Armies. The mortality is very low, but 266 deaths in 30 years. In Santa Lucia, during January, February and March, 1901, Gray and Low (2) found malarial parasites in the blood of 137 out of 230 patients observed. The large majority of these were malignant, estivo-autumnal in type, and anopheles mosquitoes were found near the houses of the patients. Celli (3) describes malaria in Italy during 1901. The anopheles mosquito was always present where malaria existed. Estivo-autumnal parasites were found in every part of Italy, but were most severe in Southern Italy. Henderson (4) reviews the history of malaria in an interesting article. In his excellent address on the diagnosis of malaria, Manson (5) lays stress upon the classical methods of diagnosing malaria; clinically, by tertian or quartan periodicity; therapeutically, by the curative effect of quinine; and microscopically, by the detection of the parasite or its products in the blood, and the characteristic leukocytic variation. The presence of malaria does not exclude other diseases. On the contrary, it predisposes to other infections. Similarly, latent malaria is favored by other infections, especially typhoid fever and tuberculosis. Craig (6) has written a treatise in which he describes 2 forms of the estivo-autumnal parasite, quotidian and tertian. He considers examination of the blood of great diagnostic value, confirmed later by quinine. Craig (7) also discusses latent malaria. In 195 patients the diagnosis was made by blood examination, 150 of whom had estivo-autumnal, 44 tertian and one quartan infection. The source of the infection was traced in 188 cases. Masked infections show a much greater pigmentation and many more parasites than latent infections. Young (8) states that attacks of latent malaria occur after a long period of incubation, without any exciting cause. The parasites remain dormant, then, under changed conditions due to exposure, they suddenly multiply, producing the paroxysm. Where malaria is endemic, the blood should always be examined, no matter what symptoms are observed.

Jackson (9) reports 4 cases of estivo-autumnal malaria at West Point. Howard (10) reports a case of quartan malaria in an Italian who had been in Canada one month, but had had attacks before leaving Italy and on shipboard. Fitch (11) reports a case of tertian estivo-autumnal malaria and 2 cases of hemoglobinuric malarial fever. He noticed the disappearance of hemoglobinuria when saloquinine was substituted for quinine. Blackwater fever is discussed by Blair (12), who, from personal experience, believes it to be essentially a malarial disease, in which quinine is the most common determining cause. Protection from malaria will

protect from hemoglobinuria. Otto (13) reports a case of hemoglobinuria in a man who had always lived in Northern Germany. He had had an attack of malaria 24 years before. Immediately after taking $7\frac{1}{2}$ grains of quinine hemoglobinuria appeared. Two months later, after another dose of quinine, it reappeared. Otto thinks that hemoglobinuria occurs after quinine, when the drug was indicated long before it was given. Plehn (14) gives quinine in large doses in blackwater fever. He states that Europeans in the Tropics should not live near natives. O'Sullivan Beare (15) noted good results in the treatment of hemoglobinuria with cassia roots. Naame (16) describes a cardiac and a pulmonary condition due to malaria. Phillimore (17) reports 7 attacks of bilious remittent fever which he had off the African coast. Ford (18) reports 11 cases of malaria with odd symptoms. Lofton (19) calls attention to the fact that the tongue shows 2 longitudinal striations, separated by pale mucous membrane, in acute malaria. This is a characteristic symptom, persisting until the patient is well saturated with quinine. Fest (20) reports 5 cases of estivo-autumnal malaria with hematemesis, all pernicious in type. Boinet (21) states that malaria may provoke or aggravate hysteria, but cannot cause it. Hysteria may, however, occur alone, in attacks resembling malaria. Anthony (22) noted scarlatiniform erythema in a young soldier with malaria. Riesman (23) reports the occurrence of urticaria with malaria. Herpes and urticaria are frequently noted in malaria. Whether the parasite is found or not, Riesman urges quinine in obscure urticaria. Mathis (24) reports 3 cases of malarial polyneuritis, having collected 40 case-histories, in 24 of which patients the ulnar nerve was affected. Albert (25) describes an attack of tetany in a soldier with severe quotidian malaria. Six cases of malaria, accompanied with acute abdominal symptoms suggesting appendicitis or peritonitis, are reported by Jackson (26). Jacobson (27) reports a case of malarial iritis in a patient in whom iritis developed in 4 weeks, after being bitten by mosquitoes. He had no other signs of malaria, yet atropine dilated the pupil with difficulty. Prompt relief followed quinine.

Rogers (28) shows the diagnostic value of variations in the leukocytes in typhoid fever and malaria. An increase of leukocytes to 40% without any increase in large mononuclears points to typhoid; but an increase in large mononuclears to 12%, especially during temperature remissions, strongly indicates malaria. The presence of from 1% to 5% of myelocytes points to malaria. A high-grade anemia, 3,000,000 erythrocytes, occurs more often in malaria than in typhoid. A reduction of leukocytes to 2,000 is more frequent in malaria. Leukocytosis may be detected by the presence of a great excess of white corpuscles, 80% of which are polymorphonuclears, and is often of service in distinguishing malaria from intermittent fever due to hepatic abscess or local inflammation. Plehn (29) found that the large, deeply pigmented parasites caused short paroxysms with a chill and enlarged spleen but without dangerous complications. But they had only a slight tendency to spontaneous recovery. The small, slightly pigmented forms usually cause no chill or enlarged spleen, but are followed by serious complications, though they have a distinct tendency toward spontaneous cure. Shegoleff (30) prefers Reuter's stain in the differentiation of malarial parasites. Hewes (31) states that by the Leishman or Nocht modification of the Romanowsky stain blood examination for the malarial parasite is simple. Tschernischeff (32) describes the post mortem findings in a case of pernicious malaria, marked changes in the central nervous system, cellular degeneration and capillary thromboses, the thrombi being composed almost entirely of parasites. Liver and spleen were deeply pigmented and contained large numbers of plasmodia. Ewing (33) reports 9 fatal cases of malaria. The liver was swollen and reduced in consistency; pigment deposits were noted, and the gall-bladder was distended; the spleen was large, contained pigment, cellular hyperplasia and distension of the pulp

cords; the bone marrow was chocolate-colored; cellular hyperplasia occurred, accounting for the anemia; lymphocytosis was noted in prolonged cases; the abdominal lymphnodes were swollen; and the phagocytes contained parasites, pigment, hematin, hemosiderin, erythrocytes and other leukocytes. Malarial coma may be due to the massing of parasites in the cerebral capillaries; to emboli without massing of parasites; or to general toxemia. The brain presented a characteristic brownish discoloration, from pigment deposits.

While all observers immediately give quinine in the treatment of malaria, Ferguson (34) uses subcutaneous injections of quinine bihydrobromate for chronic malaria. This has been most successful, curing malarial joints and rheumatism. Plehn (35) advocates quinine in large doses. By giving half a gram every 5 days he believes it to be possible to create immunity to malaria. Where quinine had no effect Gautier (36) had rapid recovery follow arrhenal. Bucquoz (37) had a similar experience. King (38) suggests that the curative effect of quinine may be due to its fluorescence, its action producing violet rays of light in the blood. Low (39) has noted the close analogy between malaria and filariasis. In Barbados, where the anopheles mosquito is not found, malaria is absent; while filariasis is common because the culex mosquito, the agent of infection, abounds. Corsica has formed a league for the prevention of malaria. Laveran (40) explained the plans of this association at a recent meeting of the Académie de Médecine, Paris.

REFERENCES.

1. Myrdacz, *Der Militärarzt*, January 17, February 14 and March 7, 1902.
2. St. George Gray and G. C. Low, *British Medical Journal*, January 25, 1902.
3. Celli, *Italian Society for the Study of Malaria*, Rome, March 20, 1902.
4. S. C. Henderson, *Mobile Medical and Surgical Journal*, May, 1902.
5. Patrick Manson, *Lancet*, May 17, 1902.
6. C. F. Craig, "The Estivo-Autumnal Malarial Fevers," 1901.
7. C. F. Craig, *Medical Record*, February 15, 1902.
8. G. B. Young, *American Practitioner and News*, March 15, 1902.
9. T. W. Jackson, *Philadelphia Medical Journal*, April 19, 1902.
10. C. P. Howard, *Montreal Medical Journal*, March, 1902.
11. W. E. Hatch, *International Medical Magazine*, April, 1902.
12. V. P. Blair, *St. Louis Courier of Medicine*, January, 1902.
13. M. Otto, *Deutsche medicinische Wochenschrift*, January 23, 1902.
14. F. Plehn, *Deutsche medicinische Wochenschrift*, November 28, 1901.
15. D. R. O'Sullivan Beare, *Lancet*, February 1, 1902.
16. Naame, *Revue de Médecine*, December 10, 1901.
17. H. Phillimore, *Medical Record*, April 5, 1902.
18. J. H. Ford, *Medical Record*, April 5, 1902.
19. M. L. Loftin, *New York Medical Journal*, April 19, 1902.
20. F. T. B. Fest, *Interstate Medical Journal*, April, 1902.
21. Boinet, *La Presse Médicale*, December 21, 1901.
22. Anthony, *Le Progrès Médical*, April 26, 1902.
23. David Rlesman, *American Medicine*, March 22, 1902.
24. C. Mathis, *Revue de Médecine*, February 10, 1902.
25. Albert, *Archives de Médecine et de Pharmacie Militaires*, April, 1902.
26. J. M. Jackson, *Boston Medical and Surgical Journal*, June 26, 1902.
27. S. D. Jacobson, *American Medicine*, February 8, 1902.
28. L. Rogers, *British Medical Journal*, April 5, 1902.
29. F. Plehn, *Deutsche medicinische Wochenschrift*, November 14, 1901.
30. M. S. Shegoleff, *Medicinskoie Obosrenie*, February, 1902.
31. H. F. Hewes, *Boston Medical and Surgical Journal*, June 26, 1902.
32. S. P. Tschernischeff, *Medicinskoie Obosrenie*, January, 1902.
33. J. Ewing, *Journal of Experimental Medicine*, February, 1902.
34. G. B. Ferguson, *British Medical Journal*, February 22, 1902.
35. F. Plehn, *Deutsche medicinische Wochenschrift*, December 5, 1901.
36. A. Gautier, *Journal of Praticiens*, February 22, 1902.
37. Bucquoz, *La Médecine Moderne*, April 30, 1902.
38. A. F. A. King, *American Journal Medical Sciences*, June, 1902.
39. G. C. Low, *British Medical Journal*, June 14, 1902.
40. Laveran, *La Médecine Moderne*, April 30, 1902.

PEDIATRICS.

The Treatment of Chorea with Cerebrine.—Jacques Traversier (*Lyons Thesis*, 1901-1902, No. 165. *Gaz. Heb. de Méd. et de Chirur.*, September 25, 1902.) thinks cerebrine, prepared according to the method of Constantin Paul, ought to be considered as an efficacious method of treatment in chorea, if given hypodermically. The action of the substance is quite rapid, so that in 8 or 10 hours a modification in the movements should be noted. In the 13 cases reported by Traversier, cure resulted uniformly, the required length of time for this result varying between 25 and 31 days. Relapse sometimes takes place (twice out of the 13 cases), but if seen early in the relapse it lasts but a few days. The dose of the remedy is 3 cc. at first, rapidly increased every other day by 2 cc. until doses of 9 or 10 cc. are reached, when that dose is continued until the patient is cured. The remedy is without inconvenience.

The Treatment of Chorea with Arsenic.—Louis Fabel (*Paris Thesis*, 1901-1902, No. 260. *Gaz. Heb. de Méd. et de Chirur.*, July 24, 1902.) says that arsenic is the medicine of choice in the treatment of chorea that is not menacing to life. Chloral is the most heroic of the sedatives; but it may be vomited or, being absorbed, it may have no action. Opium, in order to succeed, should be given in large doses; but may also fail. Tartar emetic sometimes gives excellent results, but it is contra-indicated in cases of digestive or circulatory disorders. The wet pack often succeeds very well when there is prostration. Antipyrine is the best medicine in light and medium cases of chorea. Strychnine should be rejected completely in the therapeutics of the disease.

The Treatment of Chorea.—In the past 8 years Comby (*Gaz. Heb. de Méd. et de Chirur.*, June 5, 1902) has treated 240 cases of chorea in the Children's Hospital. Out of these 240 cases, 90 were mild or of moderate severity and were treated merely by rest in bed, a milk and vegetable diet and wet pack. The wet pack is an excellent nervous sedative when it is properly employed. A sheet is wrung out of cold water, spread out over a wool blanket and then is wrapped about the patient. The child should remain in this pack from ½ hour to an hour every day. If the case requires it, the application may be repeated once or twice during the day. In grave cases cure is not obtained by this procedure, but it is necessary to use antipyrine or arsenic. Out of 150 grave cases the author has treated 70 with antipyrine, 54 with arsenic and 6 with different agents, such as cacodyle, salophen, chloral, etc. Antipyrine should be given in large, not in fractional, doses; 0.50 gm. (7½ grains) daily for each year of age. For example, a patient, 10 years old, should take 5 gm. (77 grains) daily during 10 days. It is rare that chorea resists such a vigorous attack. The inconveniences are oliguria and even anuria, erythema, vomiting, etc. If the child is on milk diet and if the kidneys are acting well, these accidents are exceptional. It seems that summer heat by increasing perspiration and diminishing the excretion of urine renders toleration of the drug more difficult. Arsenic is subject to the rules already laid down for antipyrine. The former has greater efficiency than the latter. He describes his method of administering Boudin's solution. In a case of grave chorea Comby prescribes: (1) Absolute rest in bed for at least 15 days, (2) relative isolation, no playmate, no intellectual exercise, (3) milk diet, sometimes combined with vegetables; in case of treatment with high doses of antipyrine or arsenic rigid milk diet, (4) for 9 days Boudin's solution (arsenic) or antipyrine.

Treatment of Whooping Cough With Ozone.—P. E. Hurion (*Paris Thesis*, 1901-1902, No. 229. *Gaz. Heb. de Méd. et de Chirur.*, July 24, 1902.) employs inhalation of ozone in whooping cough. The inhalations serve to diminish the number, the duration and the intensity of the attacks of

coughing and cause the attacks of vomiting, cyanosis and convulsions to cease rapidly. The general condition of the patient is improved by them, so that appetite returns and infections or mechanical complications are prevented as much as possible by perceptibly shortening the duration of the disease. Ozone seems to act in its antiseptic power better than any other medicine.

The Prophylactic Use of Diphtheria Antitoxin.—Caron (*Paris Thesis*, 1901-1902, No. 261. *Gaz. Heb. de Méd. et de Chirur.*, July 20, 1902.) believes that the most sure prophylactic method in diphtheria is found in the use of anti-diphtheria serum. In patients suffering from measles the dose should be large and should be repeated every 2 weeks. The preventive injections are indicated in the time of an epidemic and should be repeated every 3 weeks. Immunization is established at the end of 24 hours and lasts from 21 to 28 days. In some cases diphtheria develops in spite of the preventive inoculations; but in such a case it is benign.

Arsenic in the Treatment of Eczema.—Agniel (*Gaz. Heb. de Méd. et de Chirur.*, July 17, 1902.) reports the case of a girl, aged 12 years, who had had chorea of medium intensity of 2 months duration and an eczema of 6 years' duration. The patient was confined to bed and was put upon milk diet with arsenous acid incorporated in butter. She began taking 0.005 gm. (1/13 grain) of arsenous acid every other day, and increasing 0.005 gm. every other day until 0.030 gm. (6/13 grains) had been reached. Then the amount was gradually decreased until the first dose was reached. Both the eczema and the chorea were cured by this treatment.

The Treatment of Cyclic Vomiting in Children.—Ely (*Proceedings Philadelphia County Medical Society*, September, 1902), in the treatment of cyclic vomiting in children advises the hypodermic injection of morphine and atropine, high saline enemata, gavage, hypodermoclysis and even intravenous injections of salt solutions.

The Treatment of Cyclic Vomiting in Children.—Hand (*Proceedings Philadelphia County Medical Society*, September, 1902) found good results follow the use of salt water in the treatment of cyclic vomiting in children. The children drank a solution made of ½ teaspoonful of salt in a glassful of water readily. He thinks that the cyclic vomiting is due to the elimination of some poison through the stomach mucous membrane. In searching for a substance that would tend to abort attacks, he decided to try milk of magnesia. In one patient 2 teaspoonfuls of this preparation was given every ½ hour until the bowels moved as soon as the first act of vomiting occurred. He believes attacks of cyclic vomiting were aborted by this means in the case reported.

The Treatment of Diabetes in Children.—Griffith (*Proceedings Philadelphia County Medical Society*, September, 1902) says that diabetes in children is rare, about 765 cases have been reported by 7 writers, some of which are duplicated by the different authors. The treatment does not differ materially from that in adult life, except that in infancy it becomes increasingly difficult, owing to the fact that the child depends upon milk. In one case the use of antipyrine without material alteration of diet apparently resulted in cure. He recommends sodium salicylate, arsenic and codeine.

The Use of Saline Infusions for Meningeal Symptoms.—Gordon (*Proceedings Philadelphia County Medical Society*, September, 1902) reports the case of a female infant, aged 5 months, who, in the course of an attack of intestinal indigestion developed meningeal symptoms. The patient's temperature was between 103° and 104°; strabismus was present and clonic convulsions were frequent. The author gave 15 cc. of normal salt solution hypodermically very

slowly. One hour later a similar dose was administered. The immediate effects of the injections were increased output of urine, fall in temperature, cessation of convulsions, and the pulse became full and strong. The important points are the small amount injected and the slow method of introduction.

DIETETICS.

The Consumption of Sugar.—The people of the United States now consume 8 times as much sugar per capita as they did in the first quarter of the last century, 4 times as much as the average per capita during the decade ending with 1850, and twice as much as they did in any year prior to 1870. In the years immediately prior to 1825 the average consumption of sugar was about 8 pounds per capita, in the decade 1840-50, about 18 pounds per capita, in the years immediately prior to 1870 the average was about 32 pounds per capita (omitting the war years, in which the consumption was light), from 1870 to 1880 it averaged about 40 pounds per capita, from 1880 to 1890 50 pounds per capita; in 1891 the figure was 66 pounds per capita, and has ranged from 62 to 68 pounds per capita since that time, the figure for 1901 being 68.4 pounds. This growth in the consumption of sugar is, evidently, not confined to the people of the United States. The increase seems to have been equally rapid in other parts of the world, judging from the figures of total production. Figures recently published by the Bureau of Statistics in its monograph "The World's Sugar Production and Consumption," showed that the sugar production of the world was 8 times as great in 1900 as in 1840, the figure for 1840 being 1,150,000 tons and that for 1900, 8,800,000 tons. This increase in production, and consequently in consumption, has come largely through the development of the beet sugar industry, which increased from a production of 50,000 tons in 1840 to 200,000 tons in 1850, 831,000 tons in 1870, 1,402,000 tons in 1880, 3,633,000 tons in 1890, and 5,950,000 tons in 1900. During the same time, cane sugar production increased from 1,100,000 tons in 1840 to 2,850,000 tons in 1900. Beets in 1840 supplied 4.35% of the total sugar product of the world; in 1850 they supplied 14.29%; in 1860, 20.43%; in 1870, 34.40%; in 1890, 63.70%, and in 1900, 67.71%. The per capita consumption of sugar in the United States is greater than that of any other country except the United Kingdom, in which the annual consumption ranges from 85 to 91 pounds per capita, against from 60 to 68 pounds in the United States, the figure of consumption for 1900 in the United Kingdom being 91.6 pounds per capita.

SURGERY.

The Treatment of Carcinoma of the Rectum by Abdominal Section.—Abbe (*Annals of Surgery*, August, 1902) states that the operative method for cancer in different parts of the rectum must be elective; there is no one method that applies to all. The perineal route is still the most available for any very limited and very low down growths. The Kraske sacral method is available for a moderate number of growths which exhibit slight malignancy as to infiltration, and are not more than a short finger length within the anus. But the abdominal method more nearly meets the present attitude of surgery in seeking as wide and thorough extirpation as possible for malignant growths. In the Kraske operation many jagged cuts are made and much bleeding results; there is a tendency to cut off the healthy bowel nearer the diseased limit than is safe because of the desire to get enough bowel to bring down to meet the anal margin and because of the fact that traction on the tumor stretches the healthy bowel, so that when cut off apparently an inch above the disease, the specimen shows only a quarter-inch of mucous membrane uninvolved. One has to handle the cut end of the rectum in the grasp of forceps, after removing the tumor, and considerable soiling of the wound is inevitable. If, after resection, an attempt is made to liberate the upper segment of bowel by cutting up behind it, more hemorrhoidal vessels are cut than is good for the vitality of the bowel. But in the abdominal route with the patient in a high Trendelenburg position the manipulation of the rectum is easy, the exact limits of the tumor may be determined, and involved lymphatic glands may be detected. Two purse-string sutures of silk are passed around the

upper part of the rectum so as to invert the cut ends after severing the bowel between them; this prevents soiling of the peritoneum. The rectum is next isolated down nearly to the coccyx when the patient is placed in the lithotomy position and the enucleation finished from below. In selected cases an anastomosis may be made with the Murphy button, or the upper segment may be invaginated into the lower segment and brought out the anus following Maunsell's suggestion. Abbe, as a rule, prefers bringing the upper stump to the lateral inguinal region to form an artificial anus for the following reasons: (1) In the combined method it settles at once all uncertainty and delay by having it brought out of an inguinal cut before the patient leaves the Trendelenburg position, thus leaving the operator to confine his whole thought to most thorough enucleation of the cancerous rectum. (2) It removes the anal discharges forever from the pelvis and thus takes away one source of renewed irritation of any remaining cells of disease. (3) If the base of the bladder proves to be involved in the complete operation and a possible leakage occurs, the dangers of mixed urinary and fecal contamination are obviated. (4) The results of newly established artificial ani in perineum or sacrum are such that continence of flatus and feces cannot usually be hoped for, even to as great an extent as in inguinal colostomy, therefore, inasmuch as a T-bandage or napkin will usually have to be worn, the inguinal has no disadvantage. (5) When then the operator begins with the idea of turning the sigmoid colon end up into the groin permanently, he is much freer to dissect the highest part of the rectum and lower sigmoid with the hemorrhoidal vessels, and then clean out all infected lymphatics from the pelvis, *ab initio*. The operation, as a whole, is therefore simplified and abbreviated, as well as made more thorough. (6) The great majority of cases with return of disease ultimately require artificial anus, and it should be anticipated in all by this preparation.

Epiploexy For Cirrhosis of the Liver.—Brown (*Annals of Surgery*, August, 1902) presents a patient upon whom he operated 2½ years ago for rapidly recurring ascites due to cirrhosis of the liver. The patient is at present doing heavy work and is practically well. From a study of 14 cases of Morrison's operation Brown finds that 7 or 50% are greatly improved or cured. He feels assured that the great risks attending operation on advanced and failing cases of ascites due to cirrhosis will be notably wanting in similar procedures applied in earlier stages of the disease. Brown adopts the following conclusions: (1) The more rapid have been the accumulations of ascitic fluid, the greater the reason to provide for long-continued drainage which is to follow the operation, and to expect that very gradual improvement in all symptoms is the most and best which can be hoped for. (2) In these advanced and apparently hopeless cases of rapidly recurring ascitic accumulations, the three things of greatest import appear to be: (a) The full appreciation before operation of the necessity and the provision for a constant and thorough aseptic pelvic drainage. (b) The general observance of a rational and aseptic operative technique, such as that used in the third case of Mr. Morrison, and which the author has followed quite closely in his case. In other words, the readiness to forego the introduction of personal innovations until those methods which appear reasonable shall have been proved faulty. (c) The value of Morrison's adhesive strapping to keep in approximation the denuded peritoneal surfaces, and at the same time to compel the serous effusion to find its only available space in the pelvis, appears to us most evident. The importance of the long continuance of this device we had accentuated on 2 occasions, when a hospital interne attempted at the end of 2 weeks and again later to dispense with the adhesive strapping. Each time the accession of ascitic fluid to the upper part of the peritoneal cavity was apparent. (d) An unusual vascularity of the granulation tissue forming the infra-umbilical fistula was shown on several occasions, especially during the last stages, at dressing, by so considerable a hemorrhage as to require instant plugging. From this the writer has inferred that an important and considerable part of the anastomotic circulation may in this patient's case be maintained by this particular band of adhesions.

The Operative Treatment of Severe Forms of Rectal Prolapse.—von Eiselsberg (*Deutsche Gesellschaft für Chirurgie*, XXXI. Kongress, April 2-5, 1902, *Centrallblatt für Chirur.*, June 20, 1902) has repeatedly seen good results from massage after the method of Brandt in cases in which the prolapse is not very large. His operative experience is as follows: Resection of the prolapse after Mikulicz, 7 times; colopexy, 12 times; Jeannel's operation, once; and resection of the sigmoid flexure, twice. Of the 7 cases of resection of the prolapse, one was well after several years, one developed a stricture at the site of suturing and died 4 years after operation, one suffered a complete relapse at the end of 9 months, and 4 could not be followed. Colopexy was performed on 4 men and 8 women; in 3 of these massage had failed, in 2 cauterization had failed, and in an other resection had failed. He performs colopexy as follows: After anesthetization, the patient is placed in the Trendelenburg position and an oblique incision made just above and parallel to Poupart's ligament. The sigmoid is strongly drawn up into the wound and held there by the finger of an assistant passed into the bowel through the rectum. An area of bowel wall as long and as broad as the thumb is then sutured to the abdominal wall and the incision closed. Primary union was obtained in each case. One case was followed by immediate relapse because of a defect in the technique, the sigmoid having been sutured at too high a point; 2 cases were well at the end of 1¾ years and 3 were well at the end of 2¼ years; one case relapsed at the end of 9 months, and 8 cases could not be followed. In 2 cases in which colopexy was contemplated the sigmoid flexure was found to be abnormally long and the extremities very near each other. Because of the danger of volvulus if a small point of bowel were fixed or of the danger of interference with circulation if the whole flexure were sutured the entire sigmoid was resected in each case; in one of these cases a colopexy was performed at the same time. One of the patients in whom resection of the sigmoid was done died of hematemesis on the sixteenth day, an acute ulcer of the duodenum being found. In the second case a good result was obtained. The operation of choice in cases of large rectal prolapse which are not amenable to massage is colopexy; this operation, however, may be followed by relapse. Jeannel's operation is only indicated in extraordinary cases, with conditions similar to those already mentioned. Resection of the prolapse after the method of Mikulicz should only be undertaken when the bowel is irreducible or is incarcerated.

DERMATOLOGY.

The Use of Alcohol in the Disinfection of the Skin.—Ahlfeld (*Zeitschrift für Geburtshilfe und Gynäkologie*, Bd. XLVII., Heft 1) habitually disinfects the skin previous to operation by thorough scrubbing with soap and hot water for 5 minutes followed by scrubbing with 96% alcohol for 5 minutes. His assistant, Rielander, attempts to explain the uniform good results obtained. It has been objected that strong alcohol quickly hardens the superficial layers of the skin and prevents a further diffusion of the disinfection. Rielander at first experimented with a solution of fuchsin or green carbonate of copper in alcohol, but on account of the possibility of a supplementary diffusion of the coloring material beyond the limits to which the alcohol had penetrated, this method was abandoned. Safer results were obtained with a 96% alcoholic solution of corrosive sublimate or lead acetate. By treating portions of excised skin with ammonium sulphide an amorphous black deposit was observed due to the combination of the sulphur with the lead and mercury. Microscopically, in sections imbedded in paraffin or celloidin, the deposit appeared as light yellow spots. For macroscopic study a 10% to 20% copper nitrate in 96% alcohol may be followed by a 10% to 20% potassium ferrocyanide. The extent to which the alcohol has penetrated is then determined by the reddish-brown discoloration from copper ferrocyanide. The experiments were conducted on the dead skin of amputated extremities and on living skin obtained at laparotomies. The conclusion is reached that alcohol penetrates into the crypts of the skin quite readily and often into the subcutaneous tissues. The penetration is equally great in skin

covered by hair. The penetration is not marked in the sweat glands probably because of the pressure of the secretion.

TOXICOLOGY.

The Alleged Antidotal Action of Morphine on Potassium Cyanide and of Potassium Permanganate on Morphine.—J. F. Heymans and A. Can de Calseyde (abstract in *Therap. Monats.*, October, 1902), find, as a result of animal experimentation that morphine has no antidotal action toward the poisonous cyanides. Its previous administration does not delay the earlier symptoms, but the convulsive seizures and the fatal result are slightly delayed, due, probably, to the retardation of absorption. Morphine, however, modified materially the clinical features as some of the symptoms are suppressed. The cyanides possess no antidotal value in morphine poisoning. The investigators also find that hypodermic use of potassium permanganate in morphine poisoning is useless and may be dangerous.

Antidotal value of Cobalt Salts in Poisoning by Hydrogen Cyanide, (prussic acid).—J. Hübner (abstract *Therap. Monats.*, October, 1902), has published some experiments which he regards as showing that the antidotal value of cobalt salts in poisoning by cyanides is slight, inasmuch as the resulting compound potassium cobalticyanide is a toxic body, and, moreover, the course of the poisoning is not modified. The abstractor, however, Dr. Impens, regards Hübner's evidence as insufficient.

The Poisonous Action of Neutral Sodium Citrate and Neutral Sodium Tartrate and their Influence upon the Coagulation of the Blood, and upon Coagulation of Casein by ferment, by Dr. Frhr. v. Vietinghoff-Scheen. Neutral sodium citrate is more toxic for frogs, mice and rabbits than the neutral sodium tartrate. The fatal dose of citrate is about 4 to 5 mm. per gram of body-weight (1-200), but this dose is too great for the warm-blooded animals in many cases.

The primary poisonous action of citric acid is irritation of the central nervous system and paralysis of the heart. Neutral sodium citrate delays the coagulation of the blood, but neutral sodium tartrate does not have this effect. The coagulation of casein by ferment is restrained in a marked degree by the sodium citrate; in less degree by the sodium tartrate. In large amount these substances prevent the coagulation entirely. Sodium oxalate is 10 times as poisonous as the citrate, but, apart from this difference, the two substances have a similar action.

Sulphuric Acid Poisoning.—Von Boltensstern (*Therap. Monats.*, October, 1902) reports the following case, in which neither the form of administration nor the amount taken was discoverable. A child, ten weeks old, was found in the following condition: The region of the mouth almost to the chin was stained grayish-white, the lips were denuded of mucous membrane, dirty brown-red and spotted with many small specks of dark-brown bloodclots. The tongue was somewhat like chamois skin and much swollen. The mucous membrane of the interior of the mouth was strongly reddened, denuded of epithelium and spotted with many small dirty brown swellings. From the corners of the mouth grayish-white streaks extended downward, joining in a similar patch upon the front of the neck and upper part of the chest. Similar streaks extended backward and formed a large patch in the region of the scapulæ. It was plain that the poison had been poured into the mouth while the child was lying down and had run over the face and upper part of the body. The tip and wings of the nose and the surface of the left cheek had been sprinkled with the acid. The child when seen was in collapse, with shallow rapid breathing and half-closed eyes, and did not respond to external stimulation. The corneal reflex was lost. The wrist pulse and the heart

movements were not perceptible, and the heart sounds were faint. The extremities were cold. A warm bath produced only a transient improvement. The heart action steadily declined, the breathing became slower and finally stopped after a long drawn staccato inspiration. The death occurred about half an hour after the reporter saw the patient.

The post mortem is described in detail. It showed extensive corrosion in the thoracic and abdominal cavity, and indicated that a large dose had been forced upon the infant. The brain was anemic, the membranes showed scattered cherry-red spots. The base of the skull contained bright red blood. While it is considered that much of the corrosion occurred after death, yet the reporter thinks that, in spite of the short duration of life after the poisoning, an absorption of the acid had occurred and a systemic effect had been produced, as shown by the inflammation and ecchymoses of the parenchymatous organs. The general anemia observed at the autopsy was described to a hemorrhage by vomiting. The appearance of the blood was not in accordance with the usual description of the results of sulphuric acid poisoning, as it was cherry-red and not dark and tar-like.

Poisoning by Petroleum.—Dr. Friedeberg reports in the *Centralbl. f. innere Medicin*, October 18, 1902, the case of a man, aged 25 years, who by mistake at night drank some petroleum. He noticed the error at once, and endeavored to provoke vomiting by inserting the finger in the throat, but failed. Marked irritation of the esophagus and stomach resulted. The patient complained strongly that everything tasted and smelled of petroleum, but the urine and breath did not have such an odor noticeable to others. The man recovered under simple treatment which included the use of tincture of opium. In this connection it may be worth noting that cases of intoxication with gasoline vapor are occasionally observed in large cities. Boys sometimes steal gasoline from the street lamps. During the Spanish-American war two sailors stole and drank gasoline from the tank of one of the launches. One man died; the other became insane.

Poisoning by Hydrastis.—Dr. Friedeberg reports in *Centralbl. f. innere Medicin*, October 18, 1902, the following case. A woman, 22 years old, suffering from uterine hemorrhage, was ordered fluid extract of hydrastis, 25 drops, 3 times daily. After 48 hours' use, the effect not satisfying the patient, she took the remainder of the medicine, amounting to 9 gm. (about 140 grains). She suffered promptly with burning pain in the stomach, then nausea, dizziness and short unconsciousness. During the night she was very restless, and had headache with hallucinations, oppression in the cardiac region, dyspnea and toward morning frequent vomiting of dark green, stringy fluid. At noon the physician found facial pallor, cyanotic lips, marked weakness, rigors, weak voice and coated tongue. The respiration was shallow, pulse 46 per minute, weak and irregular. The heart sounds were soft, and a light murmur was heard over the aorta. The lungs were normal. There was some bleeding from the vagina. The uterus was enlarged and sensitive, and the os but slightly open. The other abdominal organs were normal. Reflexes were abolished, the pupils were dilated but reacted. The urine was normal. The treatment was injection of 6 gm. of oil of camphor (1 to 4), and also of warm water. She was wrapped in warm clothes and strong coffee and light wine were administered. By evening the strength had improved, the pulse was 60 per minute, the temperature normal, the breathing stronger. There was slight diarrhea and bleeding from the vagina. The patient now confessed that she had suffered an abortion. The next day she was still better, and the uterus was curetted. She was discharged cured on the fifth day after the poisoning.

OPHTHALMOLOGY.

Ophthalmia Neonatorum.—F. Thomin (*Revue Pratique d'Obstetrique et de Pediatrie*, April, 1902) concludes his communication upon the causes and prophylaxis of purulent ophthalmia in the newborn by arguing with Pinard, in the

following statements: (1) There are many forms of ophthalmia neonatorum, all infectious and contagious. (2) Though purulent ophthalmia is most frequently due to the gonococcus, it may be caused by other micro-organisms. (3) The conjunctiva may be infected before birth, most usually in the vagina, though occasionally in the uterus, or after birth, whence the terms primary and secondary ophthalmia. The benefit obtained by treatment should not be menaced by re-infecting the cleansed eyes, therefore the child's head should not be washed with the water of the bath used for the first washing. Moreover, to avoid secondary ophthalmia, scrupulous cleanliness should be observed: all who have to take care of the infant should take detailed antiseptic precautions. All objects which may come in contact with the infants' eyes, such as clothing, bed-linen, toilet articles, etc., should be carefully disinfected. (4) Theoretically the ideal prophylactic treatment is the absolute protection of the infant's eyes for at least 20 days after birth. (5) Practically, the employment of the various antiseptic methods, the purpose of which is to obtain an aseptic condition of the maternal genital tract before birth, and of the infant's ocular apparatus from the time of birth till 3 weeks after, has considerably diminished the number of cases of ophthalmia neonatorum, though it has not completely stamped out the disease, no matter what remedy has been used. (6) The sooner the prophylactic and curative treatment is applied, the more effective it is.

INFECTIOUS DISEASES.

The Use of Washed Sulphur in the Treatment of Typhoid Fever.—After reading Dr. Richmond's article in the *Semaine médicale*, No. 26, about the use of sublimed sulphur in the treatment of dysentery, Ia. S. Vorshilski (*Praeticheski Vrach*, Vol. I, No. 24) determined to try the remedy in that disease. He prescribed 1.25 gm. of sulphur every 2 hours. The results obtained were such as to justify the conclusion that sulphur exerts a beneficial influence on intestinal ulceration. It then occurred to the author to try the remedy in typhoid fever. He used washed sulphur in doses of 1.25 gm. for adults and 0.3-0.5 gm. for children. The administration of the drug was followed by a marked amelioration of the symptoms in from 2 to 5 days. There followed a decline of temperature, disappearance of the headache, abdominal pain and diarrhea; the tongue became moist and the appetite returned. The administration of the drug was continued up to the time of convalescence. The author ascribes the beneficial effect of sulphur to its tendency to form a protective coating of the ulceration and its antiphlogistic properties.

GYNECOLOGY.

A New Operation for Retrodisplacement.—J. M. Baldy (*American Journal of Obstetrics and Diseases of Women and Children*, May, 1902) describes a new operation for retrodisplacement, which is a modification of the operation devised by Webster, of Chicago. The round ligament on each side of the uterus is picked up and a ligature thrown about it close to the uterus, so placed as to secure the artery. The round ligaments are then severed close to the ligatures. This leaves the uterine ends of the ligaments ligated and the other ends free and bleeding. The bleeding is controlled by a fine ligature to each vessel, or by the sutures which fasten them in the next step of the operation. A pair of forceps is now made to perforate the broad ligament from its posterior aspect (at the point at which the round ligament is cut on the anterior surface), and the cut end (the pelvic end) of the round ligament is grasped in the bite of the forceps and pulled through the hole in the broad ligament (made by the forceps in perforating) until it protrudes on the posterior side of the broad ligament. The opposite side is treated in a similar manner. The cut ends of the round ligament are now attached by means of sutures to the cornua of the uterus on the posterior aspect of the uterus, directly back of the original point of attachment of the normally attached round ligament. The point of attachment may be higher or lower than this, as the surgeon may find necessary to accomplish the result. If necessary as much of the round

ligament is cut off, before suturing it to the uterus, as is necessary to take up any slack and give the proper amount of tension and support to the uterus. This ends the operation. The suture is a continuous one and may be either chromicized gut or silk. The advantages of this operation are that it tilts the uterus forward beyond the line of axis of the pelvis and holds it in such position that when intra-abdominal pressure is made the womb tends to move toward the bladder and not toward the hollow of the sacrum. The uterus has no artificial support and is as free to expand in pregnancy as it was originally with no greater danger of tearing away of its supports. There are no adhesions to give further trouble from pain or possible strangulation of bowels.

ROENTGEN THERAPY.

The Influence of the Röntgen Ray on Sarcoma.—Coley (*American Medicine*, August 16, 1902) reports 14 cases of sarcoma treated by exposure to the X-ray. While none of these cases can be reported as cured they nevertheless furnished ground for encouragement. Coley believes that there are strong reasons for regarding the action of the X-rays upon malignant tumors as new evidence in favor of the microparasitic origin of such tumors; in support of this view he cites the fact that nearly all lesions in which the X-ray has been used with such beneficial effect are of known or probable parasitic origin, e. g., lupus, tuberculous disease of various forms and many varieties of skin disease including alopecia areata. The method is still in the experimental stage and should be employed only in inoperable cases or in cases in which serious deformity would result from the operation. He concludes as follows: That the results in the cases thus far treated prove that the Röntgen ray has a remarkably inhibitory action upon the growth of all forms of malignant disease and that this is especially true of sarcoma. That this action in many cases of even far-advanced and inoperable malignant disease may result in the total disappearance of the tumors, often without any breaking down of the tissues, the new growth being apparently absorbed. Whether the patients have been cured, or the disease has been merely arrested, to reappear at some future date, is a question that time alone can decide. Recent observations and experiments upon the various forms of carcinoma and sarcoma prove that an agent supposed to be of value only in a very limited class of superficial epitheliomata promises to be of as great or even greater value in practically every variety of cancer. While at present there is little evidence to show that deep-seated tumors in the abdomen and pelvis can be cured or benefited by the Röntgen ray, there is still some reason to hope that with improved apparatus or with greater knowledge, and skill in using the apparatus that we now have, even these cases may be benefited. The Röntgen ray has a very marked influence upon the pain of nearly all types of malignant tumors, causing relief in many cases.

MALIGNANT DISEASES.

More Success Following the Use of Cancroin in the Treatment of Cancer of the Tongue, Larynx, Esophagus, Stomach and Mammary Gland.—A. Adamkiewicz (*Berliner klin. Woch.*, June 16, 1902) reports several cases of cancer of the tongue, larynx, esophagus, stomach and mammary gland, all of which were cured by injections of cancroin. Whence it appears that the Adamkiewicz serum, cancroin, is of great value in the treatment of cancer.

Recovery in a Case of Cancer After Injections of the Adamkiewicz Serum.—Kugel (*Berliner klin. Woch.*, June 16, 1902) reports the case of a woman of 53, with mammary cancer. This was extirpated, recurred and was operated upon 3 times, with extirpation of the axillary glands and of two-thirds of the left breast. Then a tumor appeared over the left clavicle. In spite of cachexia, injections of the Adamkiewicz serum, cancroin, were given, and the tumor disappeared after 20 injections. Later, after stopping injections, all other cancer nodes disappeared, and she has remained well since. There was no doubt that the tumors were carcinomatous, as several well-known pathologists examined them.

CLINICAL PHYSIOLOGY.

Nephrolysins.—Ascoli and Figari (*Berliner klin. Woch.*, June 16, 1902) made their first report upon the result of their experiments on nephrolysins in rabbits. Preparatory treatment with dog's kidneys caused the appearance of nephrolysins in the rabbit. They are found in serum, not in the bloodcorpuscles; such serum causing serious nephritis in dogs. Similar results, not so severe, follow serum obtained from animals whose ureters have been ligated or kidneys removed. Isonephrolysins and heteronephrolysins were demonstrated, but not autonephrolysins. Actinephrolysins were, however, present. Autopsy upon these animals always showed cardiac hypertrophy. Therefore something in the heteronephrolytic serum must gravely affect the circulation.

LARYNGOLOGY AND OTOTOLOGY.

Impetigo contagiosa, so frequently seen in children, is sometimes the source of an eczematous dermatitis at the entrance to the nostrils as well as of a purulent rhinitis within. Not very painful, but quite annoying because of the tenderness and burning and of the associated nasal obstruction, its recognition and treatment are of some importance. Usually the lip and nares are infected by matter brought on the patient's finger from lesions situated elsewhere on the face or body. The characteristic pustules form, and a low grade of inflammation extends into the nose. The treatment consists in softening the crusts on the external parts with warm water and in gently moistening the interior of the nostrils with warm Dobell's or similar alkaline solution several times a day. Five drops of olive oil may be dropped into each nostril and the external lesion smeared with yellow oxide of mercury ointment (gr. $\frac{1}{2}$ to 1 dr.). If the disease persists, applications of silver nitrate, 6%, will prove useful. A general tonic with cod-liver oil will help to combat any constitutional element in the disease.

The Etiology of Deformities and Deviations of the Nasal Septum.—W. L. Ballenger (*Annales of Otolaryngology and Rhinology*, May, 1902) believes that deviations and deformities of the septum may be explained in two ways: (a) E. S. Talbot's theory ("Irregularities of the Teeth, page 175, etc.): "Neuroses or stigmata of degeneration which cause either an arrest or an excessive development of the bones of the face, including the nose," this explanation covering the greater number of cases. (b) Bosworth's traumatic hypothesis, applying to only a small percentage of deformities. This subject is of interest in connection with the etiology of adenoids. The opinion is gaining ground that enlargements of the pharyngeal tonsil are caused by irregularities in the development of the bones of the head; secondarily the adenoids themselves become harmful and produce their well known evil effects upon the nose, throat, ears, lungs and central nervous system.

Immunizing Treatment of Hay Fever.—Hay fever continues to be practically incurable in spite of the enthusiastic endorsements of various remedies and methods of cure by men of high standing in the profession. S. Solis Cohen undoubtedly increased our power of combating the disease and in making hay fever patients more comfortable by discovering the value of the internal use of suprarenal gland in this affection. A long list of observers have written about their experiences with the suprarenal extract taken internally and used in solution as a spray and application in the nose. There seems to be a general feeling that in the suprarenal extract and in adrenalin chloride we have very valuable aids in our treatment of the disease. Over two years ago H. H. Curtis (*Medical News*, July 7, 1900) suggested that susceptible persons might be rendered immune to the influence of the pollen and minute particles of ragweed and other plants by administering internally the active principles of ragweed. Liquors and fluid extracts of ambrosia artemisiaefolia were accordingly put on the market, and already reports are being published of the success or rather want of success that has attended their use. At the meeting of the American Laryngological Association, May, 1902, E. F. Ingals reported his experiments on 20 cases of

hay fever, trying to abort the disease by using equal parts of the fluid extract of goldenrod and ragweed. Each patient was given a spray of adrenalin. Results were inconclusive. (*Journal of Ophthalmology, Otology and Laryngology*, September, 1902). "It seemed to be the consensus of opinion of those present that liquor ambrosiæ was of very doubtful value in the treatment of hay fever," (loc. cit., page 360). H. Foster, in the same journal (page 323), says: "I have not been able to get any very good results from its use." Hay fever apparently is caused by a number of different pathological conditions working for ill at the same time: The neurotic factor, the toxic factor and the factor of local nasal lesion. Treatment has to be directed against all these, therefore, and success will depend upon the thorough way in which this is carried out. Apparently hopes for the perfect immunization of hay fever patients are not at present to be fully realized.

PHARMACOLOGY.

The Horsechestnut as Food.—Dr. Laves, of Hanover, Germany, in a paper presented at a meeting of the Association of German Naturalists and Physicians, stated that the horsechestnut contains considerable nutritive matter, including about 8 per cent. of proteid, 14 per cent. of cane sugar and some starch. The bitter principles which make it uneatable can be extracted with alcohol; the residue on being ground is a tasteless nutritious flour. The alcohol extract contains a substance resembling saponin and some phenolic bodies, and is recommended by Dr. Laves for rheumatism and certain skin affections. While this statement may be received with hesitation, the fact of the probable food value of the seed is of importance. The horsechestnut is represented by several species in this country, but the well-known ornamental tree, *Aesculus hippocastanum*, is an exotic and somewhat irregular in its habits. It seems that the yield of fruit is not large.

ORTHOPEDIC SURGERY.

Further Experiences With a Modification Into the Operative Method For Inveterate Relapsing and All Aggravated Forms of Pes Equinovarus.—Jonas (*Jour. Amer. Med. Ass.*, September 13, 1902) concludes his paper on this subject as follows: (1) The triangular flap is indicated in cases of pronounced talipes equinovarus wherever an open operation is necessary to overcome the deformity which involves the mediotarsal joint. (2) The astragaloscaphoid ligaments and capsule must not be incised or torn. (3) When the division of the soft structures is not sufficient to overcome the varus deformity, an incision over the head and neck of the astragalus must be made and the bursa extirpated. (4) The neck of the astragalus must be divided transversely with an osteotome. If this is not sufficient, then remove a wedge from the neck; if that fails remove the neck. (5) If the astragalus has rotated so that its superior articular surface is inclined outward, and a replacement is impossible, the internal lateral ligament must be divided, which can be done through the opening made by the triangular flap. (6) The best possible guarantee against relapse is to divide soft parts and bone, so that the foot falls into its natural position with little or no pressure.

MISCELLANY.

The Staining of Fat and the Products of Fatty Degeneration in Fluids and Semifluids by Means of Sudan 3.—Levinson (*Russki Vrach*, Vol. I, No. 34) devised a method of using sudan 3 by which the deposit of crystals of the stain in the preparation is entirely avoided and satisfactory preparations obtained. The stain is prepared by mixing 2 parts of the saturated alcoholic (96%) solution of sudan 3 with one part of a 10% solution of formalin. The preparation is dried in the air and stained with the filtered sudan-formalin mixture for 10 to 15 minutes, avoiding loss by evaporation. It is then washed with water and mounted in glycerine. The fat, to the minutest globules, is brilliantly stained. If preservation of the preparation is desired, the edges of the cover-glass may be sealed with damar varnish.

Formulae.

RHEUMATISM.

Local Treatment of Rheumatism.—The *Jour. Amer. Med. Ass.* has collected the following. Beside rest in bed and absolute immobility of the affected joints, which may be accomplished by placing the limb in splints, local treatment may be resorted to in order to reduce the inflammation and relieve the pain. This is accomplished by wrapping the joints with cotton wool or flannel after applying the following formula as recommended by Dr. Fuller in *Applied Therapeutics*:

Tinct. opii	1 oz.
Pot. carbonatis	½ oz.
Glycerini	2 oz.
Aquæ	9 oz.

M. S.: To be applied to the inflamed joints on lint, or the following combination containing ichthyol may be applied:

Ichthyol	½ to 1 oz.
Glycerini	½ oz.
Adipis	2 oz.

M. S.: Apply to the affected part with friction.

Bamberger (*Clinical Therapeutics*) recommends the following, locally:

Olei sinapis	12 m.
Spts. terebenthinæ	6 dr.
Linimenti saponis	6 dr.

M. ft. linimentum.

S.: Apply locally.

The following combinations are recommended by *Merck's Archives* for local application:

Acidi salicylici	1½ dr.
Lanolini	5 dr.
Olei terebenthinæ	1½ dr.
Petrolati	5 dr.

M. S.: Apply locally and wrap the joints in flannel, or:

Salol	1 dr.
Menthol	24 gr.
Ichthyol	1 dr.
Lani	1 oz.

M. S.: Anoint the painful joints 2 or 3 times daily, or:

Olei gaultheriæ	1 dr.
Acidi salicylici	½ dr.
Guaiacol	1 dr.
Lani	1 oz.

M. S.: Apply several times a day, or:

Ichthyol	4 dr.
Ext. belladonnæ	1 dr.
Ext. opii	30 gr.
Lani	1 oz.
Adipis benzoinati	1 oz.

M. S.: Rub in well and apply about the inflamed part on lint.

Internal Medication.—Experience has demonstrated to the general practitioner that the salicylates and their derivatives tend to diminish the cardiac complications by diminishing the severity of the attack and shortening its duration. Salicylic acid is not so frequently prescribed because of the insolubility. It may be dissolved by mixing it with ammonium acetate or potassium citrate. It is recommended by Yeo as follows:

Acidi salicylici	20 gr.
Potassii citratis	40 gr.
Aq. destil.	q. s. ad. 1 oz.

M. S.: Two teaspoonfuls in half a glass of water 4 times a day. The dose may be increased according to the age of the patient and the severity of the attack. Salicylic acid may be prescribed in pill form as follows:

Acidi salicylici	100 gr.
Gummi acaciæ	15 gr.
Mucilaginis	q. s. ad.

M. ft. pil. No. 30.

S.: One to be taken every hour until buzzing of the ears occurs, then one every 4 hours.

The sodium salt, when given, should be given well diluted with water or milk, and if given in the capsule form the patient should be instructed to drink half a glass of

water or milk after each dose. It can be given in solution combined as follows:

Sodii salicylatis	4 dr.
Sodii bicarb.	2 dr.
Aquæ menth.	q. s. ad. 3 oz.

M. S.: One teaspoonful in water 4 times a day, or:

Sodii salicylatis	2 dr.
Syr. zingiberis	6 dr.
Aquæ	q. s. ad. 4 oz.

M. S.: One tablespoonful in water every 3 or 4 hours.

In prescribing the salicylic acid, sodium borate may be combined with it to increase its solubility, as follows:

Acidi salicylici	3 dr.
Sodii boratis	40 gr.
Glycerini	1 oz.
Aquæ menth. viridis	q. s. ad. 4 oz.

M. S.: One to two teaspoonfuls every 3 hours in water.

Alkalis are of great service to increase elimination and to counteract the acidity, given as follows:

Potassii bicarb.	4 dr.
Pot. nitratis	1½ dr.
Liq. ammon. acet.	2 oz.
Aquæ	q. s. ad. 4 oz.

M. S.: Two teaspoonfuls in water every 4 hours.

The alkalis may be combined with cinchona, as follows:

Sodii bicarb.	1 oz.
Pot. acetatis	5 dr.
Tinct. cinchonæ	1 oz.
Tinct. card. comp.	q. s. ad. 4 oz.

M. S.: Shake and take one teaspoonful every 4 hours in water.

Salicin has been of service in rheumatism given in combination as follows:

Salicini	1 dr.
Pot. bicarb.	
Sod. bicarb.	āā 1½ dr.

M. ft. chartulæ No. 10.

S.: One powder every 3 hours, dissolved in hot water or hot milk.

Aspirin, a more recent preparation, is a very valuable substitute for the salicylates, salol or salophen, and its action being similar it may be classified in this group. It may be prescribed as follows:

Aspirin	1½ dr.
Ext. nucis vom.	5 gr.

M. ft. capsulæ No. 12.

S.: One capsule every 4 hours.

Treatment of the Chronic Form.—In the treatment of the chronic form of articular rheumatism the iodide preparations should replace the salicylates. Colchicum, given in the form of the wine, is a valuable remedy if a reliable preparation can be obtained. Too often this preparation is made up by the druggist from the worthless seed or root, and the practitioner is consequently disappointed in the results obtained. The gaultheria preparations are unreliable for the same reasons. The iodides and colchicum can be given combined, as follows:

Sodii iodidi	3 dr.
Vini colchici sem.	3 dr.
Spiritus gaultheriæ	q. s. ad. 4 oz.

M. S.: One teaspoonful in water after each meal.

The oil of wintergreen is recommended in combination with sodium iodide, as follows:

Sod. iodidi	2½ dr.
Liq. pot. arsenitis	1½ dr.
Olei gaultheriæ	1½ dr.
Spts. gaultheriæ	q. s. ad. 4 oz.

M. S.: One teaspoonful after each meal, in water.

Acute Rheumatism.—Prof. George Dock, of Ann Arbor, recommends the following prescription for acute rheumatism:

Sodium salicylate	
Sodium carbonate	āā 2 dr.
Camphor water	q. s. ad. fl. 6 oz.

M. S.: One tablespoonful in water every hour.

Muscular Rheumatism.—In muscular rheumatism the salicylates are seldom of any benefit. Gentle rubbing and mild counterirritation are always indicated. The following formula has given great satisfaction in French hospitals:

Spirits of camphor	1½ oz.
Spts. of turpentine	1½ dr.
Chloroform	fl. 2 dr.
Menthol	1 dr.
Balsam of Peru	1½ oz.

M. S.: Apply with gentle friction.

DISEASES OF THE RESPIRATORY TRACT.

Acute Tracheitis and Bronchitis.—In the early stages of this disease (*Allchin's Manual of Medicine*) diaphoretic and saline remedies, combined, except in the case of young children, with small doses of opium, are most useful. A few five-grain doses of Dover's powder may be given at first, or a mixture such as the following may be prescribed:

Vin. ipecac.	1 dr.
Tr. camph. co.	2 dr.
Sp. etheris nitros.	
Extr. glyc. lip.	āā 3 dr.
Liq. ammon. acet.	1½ oz.
Aquæ	ad. 6 oz.

Ft. mist.

S.: Two tablespoonfuls to be taken 3 times a day.

Some recommend at the beginning small doses of aconite (one minim of the tincture every half-hour until free perspiration occurs. For the violent paroxysmal cough of tracheitis such a linctus as the following may be given:

Morphin. hydrochlor.	½ gr.
Apomorphin. hydrochlor.	¾ gr.
Acid. hydrochlor. dil.	20 m.
Syr. prun. virginianæ	½ oz.
Aquæ	ad. 2 oz.

Ft. linct. Dose, 1 dr. occasionally.

The bowels should be kept open, and for this purpose a saline aperient is most suitable. The diet should be plain and easily digested, during the acute stage consisting largely of milk, eggs, rusks and beef-tea. Warm drinks, such as hot milk diluted with Ems water, help to relieve cough, and may be freely given; but no alcohol should be allowed at this stage unless the patient be habituated to its use. When expectoration is free, carbonate of ammonia, squill and senega may be given with advantage, and ipecacuanha is as suitable at this period as it is the early stage. The following mixture may be substituted for the first:

Ammon. carb.	30 gr.
Vin. ipecac	1 dr.
Tr. scillæ	1½ dr.
Sp. chlor.	½ dr.
Infus. seneg.	ad. 6 oz.

Ft. mist.

S.: Two tablespoonfuls to be taken 3 times a day.

Chronic Bronchitis.—Cod-liver oil is a remedy in chronic bronchitis (*Allchin's Manual of Medicine*) which helps to improve nutrition and to bring about a healthier condition of the bronchial mucous membrane. Tonics are useful when the expectoration is profuse, especially quinine, strychnine, perchloride of iron, or Mist. Ferri Co. In the dry catarrhal type quinine may sometimes be given with benefit in a single large dose at bedtime without causing unpleasant physiological effects. Ipecacuanha and potassium iodide in combination with carbonate of ammonium may be given when the cough is difficult and the expectoration scanty, as in the following mixture:

Pot. iodidi	24 gr.
Ammonii carbonatis	32 gr.
Vin. ipecac.	1 dr.
Syr. prun. virgin.	½ oz.
Infus. seneg.	ad. 8 oz.

Ft. mist.

S.: An eighth part to be taken 3 times a day.

Apomorphine in doses of one-tenth of a grain is another useful remedy when the secretion is scanty and the cough troublesome. A convenient formula is:

Syrup. apomorphin. hydrochlor. (B.P.C.)	2 oz.
Syrup. limonis ad.	3 oz.

M. S.: A teaspoonful every 4 hours.

Chloride of ammonium (10 to 20 grains) or **carbonate of ammonium** (3 to 5 grains) may be given with squill or senega when there is free secretion, as in the following mixture:

Ammon. chlorid.	160 gr.
Vin. ipecac.	80 m.
Tr. scill.	2 dr.
Ext. glycyrrhiz. liq.	1 oz.
Infus. seneg.	ad. 8 oz.

Ft. mist.

S.: An eighth part to be taken 3 times a day.

When cough is distressing by its frequency, relief may be afforded by giving some preparation or derivative of opium, such as Tr. Camp. Co., Dover's powder, morphine, codeine or heroin. When expectoration is abundant and yellow, balsamic remedies, such as tincture of myrrh (15 minims), balsam of Peru (20 minims), or syrup of tolu (— fl. dram.), may be added to a mixture; or oil of copaiba (15 minims), myrtol (2 to 5 minims), benzol (5 to 10 minims), oil of turpentine (10 minims), pure terebene (10 minims) or terpene hydrate (2 to 6 grs.) may be given in capsules. Tar (syrup picis liq., U. S. P., 1 to 2 dr.) are also useful in the same class of cases. Tar may also be given in the form of perles (2½ to 5 grs.) or as tar-water (1 in 200), dose 5 to 10 ounces, or in the following combinations:

Picis liq.	20 gr.
Pulv. ipecac. co.	30 gr.
Pulv. benzoin. q. s.	

Ft. pil. 25

S.: One pill to be taken every 6 hours.

Benzol may be given in the form of guttæ:

Benzol. pur.	1½ dr.
Ol. menth. pip.	½ dr.
Ol. olivæ	2 oz.

M. S.: Ten to 30 drops of sugar every 3 or 4 hours.

In cases of **bronchorrhea** and in old subjects with **emphysema**, ammoniacum is an efficient remedy. It may be given in the following form:

Ammon. chlorid.	160 gr.
Liq. ammoniæ	2 dr.
Tr. lavand. co.	½ oz.
Mist. ammoniaci ad.	8 dr.

Ft. mist.

S.: Tablespoonful to be taken with half a wineglassful of water 3 or 4 times a day.

Sedative steam inhalations, such as vapor benzoini, or vapor lupuli, or stimulating, such as vapor terebinthinæ or vapor pini (1 dr. of either Tr. benzoin Co., lupulin, Ol. terebinth., or Ol. pini to 1 pint of water at 140° F.), used for half an hour night and morning, are valuable, are sedative when the cough is tight and the expectoration scanty, stimulating when the secretion is more abundant. Spray inhalations, such as solutions of chloride of ammonium or sodium (1 per cent.) are also beneficial in some cases.

Bronchopneumonia.—For infants (*Allchin's Manual of Medicine*) suffering from bronchopneumonia the following combination may be found useful:

Liq. ammon. citrat.	6½ dr.
Pot. citrat.	24 gr.
Oxymel. scill.	
Syrup. limon.	āā 1 dr.
Aquæ	ad. 2 oz.

Ft. mist.

S.: A teaspoonful to be taken every four hours.

Asthma.—In the treatment of this condition (*Allchin's Manual of Medicine*) the following is recommended:

Extr. stramonii	2 gr.
Extr. glycyrrhiz.	8 gr.
Pot. iodidi	24 gr.
Sp. chlor.	40 m.
Aq. menth. pip.	ad. 8 oz.

Ft. mist.

S.: An eighth part to be taken 3 times a day.

Cough Mixture.—The following is a prescription of the late Sir Robert Christison (*Jour. Amer. Med. Ass.*):

Syr. scillæ	
Aquæ menthæ	āā 2 oz.

Tinct. opii ammoniat
Tinct. lavandulæ comp. āā ½ oz.
Syr. 1 oz.

M. S.: Tablespoonful 3 or 4 times a day.

Fetid Bronchitis.—The following combination is recommended (*Progrès Médical*) for this condition:

Ac. tannici 1 gr.
Terpene hydrat. 2 gr.
Sod. benzoat 3 gr.

Place in one cachet.

S.: One 3 or 4 times a day.

Enlarged Lymphatic Glands.—For this condition the following combination is given (*Dominion Medical Monthly*):

Syr. ferri iodid. 1 oz.

S.: Five to 30 drops well diluted, after each meal.

Tinct. iodi. 1 oz.

S.: Paint over enlargements thoroughly and repaint as soon as the dark color commences to disappear.

Ol. hydrarg. (U. S. P.) 1 oz.

S.: Rub over the enlarged glands once daily.

Cadmii iodid 20-30 gr.

Adipis 1 oz.

S.: Apply morning and evening.

Bronchial Asthma.—Yeo states that in all cases of bronchial asthma it is better to combine a small dose of the extract of stramonium with potassium iodide as follows:

Pot. iodidi 5-15 gr.

Ext. stramonii 1/6-1/3 gr.

Spts. chloroformi 20 m.

Spts. ammon. arom. 20 m.

Aquæ q. s. ad. 1½ oz.

M. ft. haustus.

S.: The draught may be taken at bed time or, more frequently, according to the requirements of the case. The stramonium sometimes produces dryness of the throat and disturbance of vision which worry some patients and for these reasons it is best given at night.

Early Stage of Bronchitis.—One capsule after the following formula every 2 hours:

Extract of belladonna 1/12 gr.

Extract of nux vomica 1/10 gr.

Camphor monobromate 1 gr.

Asthma.—The late Dr. William Pepper found the following prescription of service during the asthmatic attack:

Ammon. bromid. 2 dr.

Ammon. chlorid. 1½ dr.

Tr. lobeliæ 3 dr.

Spirit. ether. co. 1 oz.

Syrup acaciæ, ad. 4 oz.

M. S.: A tablespoonful in water repeated every hour or two after the attack.

Bronchitis With Profuse Expectoration.

Terebene 1 dr.

Five drops on lump sugar every 4 hours.

Painful Cough.

Dil. hydrobromic acid 1½ dr.

Spts. chloroform 1½ dr.

Syrup of squill 3 dr.

Syrup 4 oz.

M. S.: Teaspoonful every 3 hours.

Colds in the Aged.—For the slight colds often seen in the aged, even during warm weather (*International Clinics*), the main indication is for a stimulant expectorant that will disturb the stomach as little as possible. Much better than the ordinary ammonium carbonate preparations under these circumstances is the following formula, which has been extensively used with satisfaction:

Spts. ammon. aromat. 1 fl. oz.

Spt. chlorof. 2 fl. dr.

Aquæ menth. pip. q. s. ad. 3 fl. oz.

M. S.: Teaspoonful every 4 hours.

Bronchitis.—J. C. Wilson recommends the following formula in acute bronchitis:

Terpene hydrat. 1 dr.

In pil. No. 30 div.

S.: Two or three pills every 3 or 4 hours.

Bronchitis.—For elderly persons suffering from bronchitis Paris recommends the following:

Pulveris ipecacuanhæ 6 gr.

Pulveris myrrhæ 12 gr.

Potassii nitratis ½ dr.

Misce et divide in partes 6.

S. One every 4 hours.

Bronchitis.—Bartholow uses the following prescription in cases of bronchitis:

Tinct. sanguinariæ 1 fl. dr.

Tinct. lobeliæ 1 fl. dr.

Vini ipecac. 2 fl. dr.

Syr. tolutan ½ fl. oz.

S.: A teaspoonful every 3 hours.

Bronchitis.—In violent troublesome cough in bronchitis hartshorne is recommended in the following combination:

Acidi hydrocyanici 16 m.

Syr. pruni virginianæ

Aquæ camphoræ āā 1 fl. oz.

M. S.: A teaspoonful every 2 or 3 hours.

PEDIATRICS.

Use of Salicylates in Children.—The following formulæ from Gillet are quoted by *Medical Standard*, in prescribing salicylates for children:

Sodii salicylatis 7½ gr.

Syr. aurantii flor.

Aquæ destil. āā 1 oz.

M. S.: One teaspoonful every hour in a little milk.

The amount of sodium salicylate in the foregoing prescription can be varied according to the age. When a mixture can not be administered, suppositories may be used:

Sodii salicylatis 7½ gr.

Olei theobromæ 1 dr.

M. ft. suppos. No. 4.

S.: To be used at equal intervals in the 24 hours.

Another formula may be used as a local application to the joints:

Methyl salicylatis 15 gr.

Menthol 3 gr.

Petrolati 1 oz.

M. S.: Apply locally around the joints, the whole being covered with cotton wool and waxed taffeta; or,

Acidi salicylici 2½ dr.

Spts. terebinthinæ 2½ dr.

Lanolini 3 dr.

Adipis 2½ oz.

M. S.: To be applied locally to the affected joints.

SURGERY.

Stimulation During Anesthesia.—Brichner (*International Journal of Surgery*) says that for bolstering a flagging heart strychnine and whiskey may be injected hypodermically, in doses, for adults, of gr. 1-30 and 30 minims, respectively, which may be repeated. Digitalis (m. 10 of the tincture) is very serviceable, as are caffeine (the salicylate of caffeine and sodium, gr. 2 in olive oil) and nitroglycerine. Small doses of morphine of gr. 1-8 to gr. 1-6 possess the double advantage of stimulating and steadying the heart and of reducing the quantity of anesthetic necessary to maintain narcosis. To combat shock occurring during operation the assistant may order the introduction, by means of a piston syringe, beyond the internal sphincter ani, of:

Tinct. digitalis 20 m.

Whiskey 1 oz.

Salt ½ to 1 dr.

Water (at 110° F. to 120° F.) 8 to 16 oz.

In the event of collapse, large doses of strychnine (gr. 1-20 to gr. 1-10) and of whiskey are indicated. One-half dram of ether, in which may be dissolved a grain of camphor, may be injected, for rapid, though transitory, effect. Finally, intravenous infusion may be required.

PHARMALOGY.

The Food Value of Plasmon.—Plasmon (as stated in *Therapeutics, Practical Medicine Series*, June, 1902) is an artificial food product formed from the casein and nucleo-albumins of milk. It has been used and especially recommended by A. Gautier (*Le Progrès Médical*, February 15, 1902) as a nutriment of exceptional value in weakened or exhausted states. Its composition is as follows:

Water	11.3
Casein (mostly soluble)	77.3
Fats	1.3
Sugar of milk	2.8
Extractives	1.1
Mineral phosphates	6.2

100.0

Compared with roast beef it contains $3\frac{1}{2}$ times as much of albuminoids and is much more digestible; leaves little or no residue and does not cause fermentation, hence its use is indicated in those cases necessitating much nutrition without loading the stomach and intestines with waste residue.

Potassium Permanganate and Thymol Lotion.—Gilbert (*Journal de médecine interne*, August 1, quoted in *New York Medical Journal*) recommends the association of thymol with potassium permanganate in antiseptic lotions, especially when used as local applications in cases of viper bite. He gives the following formula:

Potassium permanganate	150 gr.
Thymol	75 gr.
Distilled water	34 oz.

M.

Convolvulus Soldanella as a Purgative, Cholagogue and Anthelmintic.—M. Lhopitalier (*Etude des Liscrons Indigenes*) states that the resin of *convolvulus soldanella* has an aromatic odor somewhat resembling those of ambergris and vanilla. It does not cause dryness of the throat or expectoration as jalap does. In a dose of from 12 to 18 grains it is a drastic purgative of great value, equally efficacious with jalap and scammony, but without their irritant effects. It is also a cholagogue to the same extent as the former, but in consequence of its lesser solubility in alkaline media, especially saliva, it is less acrid. It is also anthelmintic to the same degree as jalap. The author gives the following formulæ:

1. Emulsion of soldanella:

Resin of soldanella	12 gr.
Sugar	
Powdered gum arabic	āā 90 gr.
Orange-flower water	30 minims
Syrup of quince	$\frac{1}{2}$ oz.
Water, enough to make	3 oz.

M. et ft. emulsio. To be taken at one dose.

2. Compound tincture of soldanella:

Inspissated juice of convolvulus	10 dr.
Soldanella-root	15 dr.
Bryony-root	5 dr.
Alcohol	$8\frac{1}{4}$ oz.

Macerate for 8 days and express. Filter. The dose is from 2 to 3 drams.

3. Hydragogue pills:

Powdered digitalis	15 gr.
Inspissated juice of soldanella	15 gr.
Powdered bryony	10 gr.

M. To make 20 pills. Four may be taken in the 24 hours.

The resins of the convolvulus order, e. g., scammony, jalap, convolvulus sepium, soldanella, convolvulus arvensis, etc., according to Chevallier, if emulsified with gum arabic in place of yolk of egg, produce their purgative effects without colic.

GENITO-URINARY DISEASES.

Treatment of Prostatic Disease by Hot Solutions.—Dowd (*Buffalo Medical Journal*) introduces a new psychrophore for the direct application of hot water to the prostate through the rectum. The instrument has a collar of hard rubber where it is grasped by the anal sphincter, this making it practically a nonconductor of heat and making it

possible to use much hotter water. Although water alone is very beneficial, much better results are produced and osmotic action favored if some substance is added, preferably salt, such as normal salt solution (a dram to a quart of water) and used at a temperature of 100° F. to 110° F. To promote absorption of the inflammatory exudate the author recommends the use of the following suppository, to be inserted as soon as the tube is withdrawn:

Ichthyol	2 drops
Ext. belladonna	$\frac{1}{4}$ gr.
Ext. hyoscyamus	1 gr.
Potass. iodidi	1 gr.

M. One suppository for the rectum.

Depilatory.—*The Druggists' Circular* (September, 1902) states, strontium sulphide is an efficient depilatory. A convenient form of applying it is as follows:

Strontium sulphide	2 dr.
Zinc oxide	3 dr.
Powdered starch	3 dr.

Mix well and keep in the dry state until wanted for use, taking then a sufficient quantity, forming into a paste with warm water and applying to the surface to be deprived of hair. Allow to remain from one to five minutes, according to the nature of the hair and skin; it is not advisable to continue the application longer than the last-named period. Remove in all cases at once when any caustic action is felt. After the removal of the paste, scrape the skin gently but firmly with a blunt-edged blade (a paper knife, for instance) until the loosened hair is removed. Then immediately wash the denuded surface well with warm water, and apply cold cream or some similar emollient as a dressing.

Injections For Gonorrhea.—Gilbert (*Journal de médecine interne*, August 1, quoted in *New York Medical Journal*) gives the following formulæ:

1. Lead and bismuth:

Solution of lead subacetate	15 m.
Bismuth subnitrate	30 gr.
Distilled water	3 oz.

M. ft. injectio.

2. Zinc and bismuth:

Zinc sulphate	
Bismuth subnitrate	āā $7\frac{1}{2}$ to 15 gr.
Distilled water	3 oz.

M. ft. injectio.

3. Zinc and lead:

Zinc sulphate	
Crystallized lead acetate	āā $7\frac{1}{2}$ gr.
Distilled water	3 oz.

M. ft. injectio.

4. Compound copper injection.

Aluminum sulphate	
Zinc sulphate	
Copper sulphate	āā $7\frac{1}{2}$ gr.
Ammonium chloride	
Potassium nitrate	āā $1\frac{1}{2}$ gr.
Distilled water	3 oz.

M. ft. injectio.

5. The "three sulphates" injection:

Zinc sulphate	
Copper sulphate	
Iron sulphate	āā $3\frac{1}{4}$ gr.
Mucilage	150 m.
Distilled water	3 oz.

M. ft. injectio.

DISEASES OF THE EYE, EAR, NOSE AND THROAT.

Earache.—The following is recommended by Hecht (*Medical Record*) to relieve earache:

Acidi carbol. liq.	5 gr.
Cocainæ hydrochlor.	
Menthol	āā 15 gr.
Alcoholis	75 m.

M. S. To be dropped into the ear.

Atrophic Rhinitis.—While there is but little hope of doing more than relieve the exceeding nauseating odor in this affection (*Jour. Amer. Med. Ass.*), yet if that can be lessened, something will have been accomplished, as there

is no other disease of the nose which will cause such a disagreeable and fetid discharge. The following combinations are recommended as antiseptics and so to cleanse the membranes as to do away with the odor temporarily:

Acidi carbol.	3 gr.
Sodii boratis	½ dr.
Sodii bicarb.	1 dr.
Glycerini	1½ dr.
Aquæ	q. s. ad. 3 oz.

M. S.: To be used as a spray, 3 or 4 times a day.

According to Merck, the following is of service:

Iodoformogen	1 dr.
Bismuthi subnit.	1 dr.
Sacch. lactis	1 dr.

M. S.: Cleanse the nose thoroughly and use freely as a snuff several times a day.

Coakley recommends the following in the treatment of atrophic rhinitis:

Menthol	20 gr.
Aristol	½ dr.
Benzoinol	1 oz.

M. S.: To be used locally in an atomizer once or twice daily.

Chronic Rhinitis.—Holt, in *Diseases of Infancy and Childhood*, recommends the following to be used as a spray in chronic rhinitis:

Listerine	½ oz.
Sodii bicarb.	
Sodii borat.	āā ½ dr.
Aquæ	4 oz.

In **Hypertrophic Rhinitis** Holt, in his text-book, states that the following formula of Lefferts is an excellent one for a spray to be used in this condition:

Iodi	4 gr.
Potass. iodidi	10 gr.
Zinci iodidi	
Zinci sulphocarbolat.	āā 20 gr.
Listerine	1 oz.
Aquæ	4 oz.

To be used as a spray once daily.

Chronic Laryngitis.—A teaspoonful of the following combination in a pint of water at 150° F. for each inhalation will be found a valuable stimulant in chronic laryngitis:

Spirit of camphor	3 fl. dr.
Rectified spirit	½ fl. oz.
Water	ad. 3 fl. oz.

Another useful inhalant, to be used in the same quantities, is as follows:

Thymol	20 gr.
Alcohol	3 fl. dr.
Carbonate of magnesia	10 gr.
Aquæ	3 fl. oz.

The Treatment of Earache.—George L. Richards advocates the use of glycerine gelatine bougies in the acute earache of children. Its formula is as follows:

Carbolic acid	7 m.
Fluid extract of opium	6 m.
Cocaine	3 gr.
Atropine sulphate	3 gr.
Water	52 m.
Gelatine	18 gr.
Glycerine	158 gr.

M. This makes 47 bougies. They should be kept in lycopodium or wrapped in tinfoil. Before using, the bougie should be dipped in water, then it will readily slip into the external ear and, dissolving, set free the anodyne.

The Treatment of Granular Pharyngitis.—M. Moure (*Presse Médicale*) recommends painting the back of the throat twice weekly with the following:

Iodine	0.25 gm.
Potassium iodide	0.3 gm.
Laudanum	3 gm.
Glycerine	120 gm.

M. This may also be used as a gargle in a strength of a teaspoonful to a half tumblerful of tepid water.

The author also recommends the use, in similar propor-

tions as a gargle, or pure as a local application, the following:

Sodium baborate	6 gm.
Antipyrine	4 gm.
Tincture of guaiacum	
Spirits of peppermint, of each,	5 gm.
Neutral glycerine	140 gm.

Tonsillitis.—Shoemaker recommends the following formula for tonsillitis:

Tinct. aconiti	½ dr.
Tinct. guaiaci	
Syr. zingiberis	āā ½ oz.
Syr. simplicis	2 oz.

M. S.: One-half to 2 dr. every 2 hours, according to age. In severe cases, with high fever, bounding pulse, severe headache.

Aural Bougies.—G. L. Richards recommends in the treatment of otitis externa as well as catarrhal otitis media the use of bougies, which are about the size of a goose-quill and half an inch in length. The formula he advises is as follows:

Carbolic acid	1/16 m.
Fluid extract of opium	1/7 m.
Cocaine	¼ gr.
Atropine sulphate	1/14 gr.

Water sufficient with gelatine and glycerine to make a proper mass which will readily dissolve at the temperature of the body.

Early Stages of Pharyngitis and Laryngitis.—A most valuable sedative inhalation for acute inflammation of the pharynx is as follows:

Compound tincture of benzoin	1 fl. dr.
Water at 150° F.	20 fl. oz.

Inhale the vapor that arises.

DISEASES OF THE LUNGS.

Pulmonary Tuberculosis.—The excessive irritability of the respiratory centers in tuberculosis may often be allayed by some combination of hydrocyanic acid, as the following

Acid. hydrocyan. dil.	½ dr.
Acid. nitric. dil.	2 dr.
Glycerini	1 oz.
Inf. quassiæ	ad. 6 oz.

S.: A tablespoonful in water 3 times a day before meals.

When this proves ineffectual morphine may be added. The following is a useful formula:

Potassii cyanid.	1 gr.
Morphinæ acetat.	1 gr.
Aceti sanguinariæ	2 dr.
Syr. tolut.	1 oz.
Aquæ	q. s. ad. 3 oz.

M. S.: One teaspoonful every 3 hours.

Inhalation in Tuberculosis.—H. E. Lewis (*New York Medical Journal*) gives the following as a valuable inhalation in cases of mixed infection with marked purulent expectoration, for allaying laryngeal irritation and cough:

Tinct. iodi co.	4 dr.
Tinct. tolutani	½ oz.
Tinct. cinnamomi	1 dr.
Acidi carbol	1 dr.
Spts. chloroformi	1 dr.
Alcoholis	q. s. ad. 4 oz.

M. S.: To be used in a bottle with large cork, through which two glass tubes are run. Inhale through the shorter tube which does not touch the liquid.

OBSTETRICS AND GYNECOLOGY.

Alimentary Treatment of Intractable Vomiting of Pregnancy.—Dr. Gros (*Province médicale; Revue médicale du Normandie*, August 10, quoted in *New York Medical Journal*) adds to his previous communication the case of a woman in the third month of pregnancy, who suffered from incessant vomitings which nothing seemed to allay. After one day in which she vomited more than 20 times, alimentation was

first reduced to half, and then replaced by 5 rectal nutrient enemata composed as follows:

Bouillon	4½ oz.
Yolk of eggs	No. 4.
Sodium chloride	15 gr.
Laudanum	4 drops

Vomiting continuing the next day, mouth feeding was entirely suspended. The vomiting then disappeared completely, and on the fourth day the enemata were discontinued, while progressive mouth feeding with small quantities of milk was returned to. The vomiting did not reappear. Mixed feeding does not give the best results, mouth feeding must be entirely suppressed. Patients have been nourished entirely by the rectum for 6, 7 and even 14 days, without notable loss of weight or strength.

Vomiting of Pregnancy.—Two effective combinations recommended for this condition by the late Dr. William Goodell are as follows:

Cerii oxalatis	12 gr.
Ipecacuanhæ	15 gr.
Creosoti	24 gr.
M. ft. pil. No. 12.	
S.: One pill every hour.	
Cerii oxalatis	24 gr.
Ext. hyoscyami	36 gr.
M. ft. pil. No. 12.	
S.: One pill twice daily.	

TOXICOLOGY.

Treatment of Rhus Poisoning.—*International Clinics* recommends the following. Grindelia robusta locally and internally is thought by some to be a specific; hence the following prescription:

Ext. grind. robustæ fluid.	4 fl. dr.
Aquæ menth. pip.	1 fl. oz.
Aquæ rosæ	q. s. ad. 3 fl. oz.

M. S.: Apply freely on cloths.

Internally the supposed specific effect of the grindelia may be obtained by the following prescription:

Ext. grind. robustæ fluid.	1 fl. oz.
Aq. cinnamom.	q. s. ad. 2 fl. oz.

M. S.: Teaspoonful 3 or 4 times a day.

For cases with few lesions, yet considerable discomfort, lead water and laudanum has been employed with excellent results:

Plumbi acetat.	¼ dr.
Tr. opii	½ fl. oz.
Aquæ dest.	q. s. ad. 8 fl. oz.

M. S.: Apply externally as lotion or on cloths.

As for most troublesome skin eruptions, ichthyol has been recommended. Its color impresses the child's mind and at least helps by suggestion to make the subjective symptoms less complained of. It may be prescribed as follows:

Ichthyol	2 dr.
Aquæ destil.	4 fl. oz.

M. S.: Apply externally every 4 to 6 hours.

DISEASES OF THE MOUTH.

Toothache.—When this condition arises from a diseased tooth in which there is a cavity, Mason recommends that a few drops of the following combination be placed upon a pellet of cotton and applied to the cavity:

Linim. aconiti (B. P.)	
Chloroformi	āā 3 dr.
Tinct. capsici	1 dr.
Tinct. pyrethri	
Olei caryophylli	
Pulv. camphoræ	āā ½ dr.

An Antiseptic Mouth Wash.—The following is an excellent formula, according to *Merck's Report*:

Formalin	5 m.
Tinct. benzoin	fl. 3 oz.
Tinct. myrrh	fl. 1 dr.
Oil of peppermint	3 m.
Oil of anise	2 m.
Oil of cassia	1 m.
Oil of cinnamon	15 m.
Alcohol	fl. 2 oz.

M. S.: Use as a mouth wash once or twice daily.

DISEASES OF THE NERVOUS SYSTEM.

Herpes Zoster.—The object of treatment in herpes zoster (*Medical News*) is to cure the vesicles, to prevent supuration and to quiet the neuralgic pains. The following combinations are recommended for local application:

Acidi tannici	7 gr.
Olei olivæ	5 dr.
Ceræ flavæ	2½ dr.
M. ft. unguentum.	
S.: Apply locally, or:	
Acidi borici	40 gr.
Cocainæ hyd.	8 gr.
Petrolati	5½ gr.

M. S.: To be applied locally.

If gangrene or suppuration should make its appearance, wet compresses should be applied, followed by powdering with iodol or iodoform. For the pain one may employ morphine, chloral, belladonna and quinine hydrobromate. The following is recommended by Shoemaker:

Ferri pyrophos	30 gr.
Acidi arsenosi	1 gr.
Quin. sulph.	30 gr.

M. ft. pil. No. 30.

S.: One pill 3 times a day, or:

Tinct. nucis. vom.	
Tinct. gelsemii	āā 75 m.

M. S.: From 5 to 10 drops 4 times a day.

Incontinence of Urine.—In incontinence of urine in children Barthololow recommends the use of the following combination:

Atropine sulphatis	1 gr.
Aquæ destillatæ	1 fl. oz.

M. S.: Four to eight drops in water.

Incontinence of Urine.—Ringer is authority for the following formula to be given for incontinence of urine:

Santonini	16 gr.
Olei ricini	1 fl. oz.

M. S.: One to two teaspoonfuls before breakfast for 2 or 3 mornings.

DERMATOLOGY

Urticaria.—Burgess recommends the use of the following formula in urticaria, and also in papular and vesicular diseases:

Hydrargyri chloridi corrosivi	1½ gr.
Chloroformi	20 m.
Glycerini	2 fl. oz.
Aquæ rosæ	6 fl. oz.

M. ft. lotio.

S.: Use locally.

Donovan's Solution.—This old combination is considerably neglected at the present day. It affords a simple means of introducing into the system the 3 great alteratives. It has been found effectual in eradicating various chronic diseases and especially the skin diseases of a scaly character:

Liquoris arsenici et hydrargyri iodidi	2 fl. dr.
Syrupi zingiberis	½ fl. oz.
Aquæ	3½ fl. oz.

M. S.: A dessertspoonful an hour after each meal.

Pruritus Ani.—When there is no ulceration or distinct pathological change Tuttle has found the following combination useful:

Acidi carbolic	2 dr.
Acidi salicylici	1½ dr.
Sodii biborat.	1 dr.
Glycerinæ	1 oz.

S.: Apply at bedtime and during the night if necessary.

In cases of fissure or in those marked cases of atrophic catarrh in which the mucocutaneous border cracks when even it is stretched, the following ointment is very effectual:

Ext. conii	2 dr.
Ung. stramonii	
Lanolini	āā 1 oz.

S.: Apply well at bedtime and before having stool.

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. Reprints (250) of Original Articles will be furnished gratis to Authors making the request.

The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8

VOL. X. NO 25

DECEMBER 20, 1902

\$5.00 PER ANNUM

Professor Lorenz's Clinic in Philadelphia.—In our issue of October 25 we presented our readers with an editorial dealing with Professor Lorenz and congenital dislocation of the hip. At that time we had not seen his work and our opinions were necessarily formed from what we had read.

His clinic at the Jefferson Medical College Hospital on Thursday, December 11, gave to the medical profession of Philadelphia, and particularly to those interested in congenital dislocation of the hip, an opportunity to see for themselves the excellent work of this distinguished orthopedist. It is a pleasure to feel that the attitude taken in our first editorial is warranted by what we have now seen and heard. Beyond all question, Lorenz is a master orthopedist, possessing a wonderful handicraft, and his work displays a remarkable regulation and control of mechanical force. Every one attending his clinic was deeply impressed by the gentle, yet forceful, way in which this man of huge stature manipulated the frail extremities of his little patients. Physicians, general surgeons and orthopedists all alike remarked the operator's unusual skill and dexterity. Certainly, in the treatment of this condition he has no superior.

Another question discussed in our previous editorial was the newspaper notoriety which Lorenz has received. We are pleased to repeat our opinion that these newspaper accounts of Lorenz and his work are not the result of anything said or done by the orthopedist himself, but rather have arisen from the zeal of our American newspapers. These papers are ever on the outlook for something sensational, and are ever willing and ready to make a sensation out of any material that offers. Many another as distinguished, or more distinguished, surgeon or physician has visited America and received the same attention from the medical profession as has Lorenz, but has been fortunate enough to escape these disagreeable attentions of the daily press. There is another feature also to be considered in this connection which is undoubtedly largely responsible for the notoriety given Lorenz's visit, namely, the way in which his patients and his en-

tertainers, who have to a considerable extent been laymen, have talked about him and his work. So much has been written about his "marvelous" and "wonderful" "bloodless surgery" that many of the laity, as well as the profession, have been led to look upon this accomplished man as something of a charlatan.

From our own observation of Lorenz in his clinic in Philadelphia last week we must say to our readers that, both in what he said and what he did, he displayed unusual modesty, and less egotism than is sometimes met with in visiting foreigners of exceptional attainment.

Exhibition Meeting of the Pathological Society.—The exhibition meeting of the Philadelphia Pathological Society was held on the evening of December 11, and despite the inclemency of the weather was largely attended. These exhibition meetings have now become an annual feature of the work of the Society and they reveal in a striking way the broad scope and scientific character of the work done by its members. It was the effort of the committee in charge to have the exhibits as varied as possible, and less space was given for microscopical sections than last year. The display of gross specimens was especially good, and these were profitably studied by those who attended and must have left an impress of the great value of such exhibitions wherein are brought together typical and rare lesions of the various organs so prepared by perfected technique as to show these conditions in many instances with the degree of accuracy approaching the diagrammatic.

We would especially mention, in commenting upon these exhibits, the beautiful specimens of sawed sections of injected and frozen heads, the skillful work of Dr. M. H. Cryer. These sections must prove of inestimable value to the student of anatomy in fastening upon the memory the relation of the various parts. Dr. G. G. Davis showed a longitudinal section of the head and trunk, similarly prepared, which was immersed in Kaiserling's solution. Dr. W. M. L. Coplin showed a series of pathological kidneys prepared in the most admira-

ble manner in especially made glass jars. Dr. De Schweinitz, Dr. Posey and Dr. Shumway showed a number of beautifully mounted eyes, many of them the seat of unusual pathological changes. Dr. F. P. Gay's specimens, both in culture and stained microscopical sections, of the bacillus of dysentery reflected the general interest which the work in this field has aroused. Dr. C. K. Mills and Dr. W. G. Spiller presented an interesting series of neuropathological specimens. The collection of radiographs exhibited by Dr. G. E. Pfahler was an admirable tribute to his skill in this work.

The few exhibits which we have mentioned give some small idea of the instructive character of the meeting, and it is to be hoped that with each succeeding year the growing interest may bring about a still larger collection of noteworthy specimens. Last year the criticism was heard that too great an amount of space was devoted to the microscopical exhibit. This year, in their efforts to counteract this criticism, the committee went perhaps to the opposite extreme. We would suggest that next year the meeting be held on two successive evenings, and that both gross and microscopical exhibits be well represented. Extending the meeting over two evenings would permit a closer study of the wealth of material by those interested. We heartily commend these exhibition meetings and tender our congratulations to the Pathological Society for the deserved praise they have earned.

Excision of the Lumbar Lymphnodes in Malignant Disease of the Testicle.—The ideal operation for carcinoma consists in a wide extirpation of the growth, of the lymphvessels draining the diseased area and of the lymphglands into which these vessels empty. This plan is nowhere more conscientiously followed nor more consistently executed than in the modern operation for cancer of the breast. Many surgeons still excise epithelioma of the lip by the old V-incision, leaving the lymphnodes of the neck, unless these are palpably enlarged; the most progressive, however, open the neck in every case, whether the glands be felt or not, and remove the fatty tissue with its enclosed glands from the submental region and submaxillary triangle. But, theoretically, even this radical procedure is incomplete, because the lymphvessels remain, and the channels through which the cancer cells (or micro-organisms) travel have been opened; the hub and periphery of the wheel have been taken away, but the spokes are undisturbed. When the regionally associated lymphglands are swollen with metastases, carcinoma

in any portion of the body presents a most unfavorable aspect, and to wait until these glands are infiltrated with malignant cells before attempting their removal ought to be considered poor surgery and bad judgment, no matter whether the original tumor be in the mammary gland, the pylorus, the intestine or the uterus.

Dr. J. B. Roberts, of this city, takes a bold step in the right direction (*Annals of Surgery*, October, 1902) by advocating excision of the lumbar lymphatic nodes in malignant disease of the testicle. He tells us to remove the diseased testicle with its spermatic cord, half of the scrotum and the inguinal and lumbar lymphatic glands. The lumbar nodes to be excised lie upon and at the sides of the aorta from its bifurcation up to the level of the renal veins. As they vary in size and may be embedded in fat, the safest course is to dissect out all the adipose tissue in front of the aorta and vena cava and at the sides of these great vessels. In testicular sarcoma intra-abdominal resection of the spermatic vein may be practised; if, however, it be proven that the lymphvessels and veins communicate as freely as Leaf believes, both lymphglands and veins should be excised in all cases, whether carcinoma or sarcoma.

Roberts' reports a case of recurrent cancer of the testis in which he excised the lumbar lymphglands, and in which death occurred on the twenty-third day from peritonitis consequent on an operation for the closure of a fecal fistula. Evidences of metastases were found in the lumbar glands.

The Heads of Scientific Bureaus.—The Smithsonian Institution at Washington has been conspicuous during the more than half-century of its existence in promoting scientific work under the United States Government. According to *Science*, not only the National Museum, but also such useful bureaus as the Weather Bureau, the Geological Survey, the Fish Commission, the Naval Observatory, and the Coast and Geodetic Survey, have all felt the fostering care of the Smithsonian Institution. In thus promoting scientific research the Institution has very efficiently discharged the duties for which it was created.

Science, however, finds some fault with the Smithsonian Institution for its policy toward the Bureau of American Ethnology—a bureau which has special interest for medical scientists. The Secretary of the Institution has decided to make the bureau a mere branch of the National Museum, and *Science* protests. Under the late Major Powell, it will be remembered, the Bureau of American Ethnology did some most excellent work in preserving records of native races of men now nearly extinct.

Science thinks it should be an independent bureau, entirely free from the leading strings of the Institution.

Our contemporary is very caustic in its comments on the appointment of Major Powell's successor—an appointment in which it thinks it scents a political aroma. We have full sympathy with its general criticism, although we know nothing about this individual case. Appointments to scientific positions should be made for merit only. The Smithsonian Institution has always maintained such a high reputation that it is hardly conceivable that it would offend in such a matter as this. The Bureau of American Ethnology is unique in its plan of work and has attained a high prestige, and we hope it will maintain it.

Senator Gallinger's Science.—We imagine it would be difficult for most persons, with pens in their hands, to make a larger number of misstatements in the same space than Senator Gallinger has made in his ill-worded reply to Dr. Keen. We pass by the ugly insinuation that Dr. Keen was actuated by a desire for self-advertisement; such a "fling" may be all right in a politician, who instinctively plays to the galleries, but it was unworthy of a man who claims the right to add M. D. after his name.

Senator Gallinger's gross misstatements are to the effect (not too clearly expressed in his involved style) that experiments on animals have not contributed to our knowledge of cerebral localization. The man who makes that claim seriously can only be excused on the ground that he is ignorant of some of the most important work ever done in medical science. We prefer to impute ignorance to a United States Senator (even ignorance in his own profession) rather than an intentional distortion of fact.

It is not too much to say that the very foundations of our knowledge of cerebral localization were laid by the experimenters in their work especially on the monkey. The superstruction has been continued by pathological and surgical work on the human brain that has been directly suggested by the data originally gained by the experimenters, and has been, in the main, confirmatory of those data. This is true especially of the motor region, to which this controversy refers. To deny these facts is to deny that medical science should have any credence whatever.

The letter of Senator Gallinger, where it is not erroneous, is sophisticated, and it should be relegated to the limbo in which now reposes the celebrated doctrine of the Rev. John Jasper, that "the sun do move."

The Literary Side of Medicine.—There is much to be said in favor of broad general education for whatever vocation a man is trained. In no walk of life does this hold with greater significance than in our own profession. This was brought to mind recently by hearing a number of young graduates discussing the prospects of earning large fortunes in medicine. The arguments used were utilitarian in the lowest sense. Ethics, one affirmed, was but the theoretical rubbish of tradition. Medicine, after all, was but a trade (God save the mark!), and he was going to use every allowable method of trade in "winning out." There were three young doctors in the party, graduates of three well-known schools. Not one could be made to see the force of the position that medical men have so long held sacred, the fact that money in itself is not to be sought in the profession for its own sake. Greed of gold never made a great physician or a noble man. They rather sneered at the idea that honest professional effort for science's sake would yield far higher returns in the coin of character and contentment and results. There was lacking in all their speech and specious arguments a comprehension of the great basic principles that should have been expounded to them with their medical A. B. C's. They had failed utterly to grasp the fact that the mercenary physician will ever have a short shrift; that great fortunes are not to be had, nor sought, in the professional path. They had erred in their choice of a calling. Medicine offers nothing to the man who places gold above the spirit of science or silver above humanitarian endeavor.

To our minds familiarity with the history of medicine, its various great schools and, more important still, the characters of the men who formulated these schools, furnishes an excellent text for many a sermon. The facts of history illustrate the value of biography to the student of medical art, not so much in knowledge of dates and points of doctrine, but in the tremendous value of these lives as a whole—what manner of men our various great lights have been, by what motives they have been actuated and how they have wielded an influence that is ever felt and comprehended by those who appreciate the cumulative effect of centuries of mental concentration, looking toward the solution of the given problem—the human body—which has been presented to all physicians alike. Their viewpoints have but differed with their mental grasp and their opportunities.

Punishment as a Therapeutic Means.—An English woman of good social position—in fact, the wife of a county magistrate—has just been convicted and fined 50 pounds for cruelly punishing her young

daughter for incontinence of urine. The details of the case have been narrated at length in the English journals, and are not necessary for an understanding of the principles (or lack of principles) involved. Sufficient to say that this English woman "of good social position" resorted to cruel methods of punishment that would not have been justifiable, even if her child had been guilty of a fault. But the child, of course, was not guilty of a fault; she was simply suffering with a physical defect.

Incontinence of urine in children is a much misunderstood affair; and it is misunderstood not only by the domestic moralist but also by the average therapist. The evidence goes to prove that this affection is neither a sin nor a disease. It is rather a physical defect due to an undeveloped nervous mechanism presiding over the bladder. To punish a child for wetting the bed is about as reasonable as to punish it for being slow in cutting its second set of teeth.

Punishment as a part of a therapeutic scheme is a dubious business under any circumstances. We do not deny that punishment, or the threat of punishment, may sometimes be a powerful means of suggestive therapeutics. But it requires rare good judgment, and the practitioner should be pretty sure of his case and his diagnosis. Certainly, it should never degenerate into brutality or wanton cruelty. "Hiccups and hysteria" may be cured sometimes by a threat, but, before the would-be doctor resorts to a club or a dark closet, he (or she) should reflect that the courts may be called in finally to assess the damages.

Virchow's Opposition to Darwinism.—A few weeks ago we referred to this subject—a subject which has interest for medical men, both because of the eminence of Virchow and because of the importance of the doctrine of evolution. The opponents of Darwinism have been taking great heart lately in some countries (probably because the doctrine of evolution is so firmly established that nobody thinks it worth while any longer to refute its opponents), and they have been making much of Virchow's indifference to it.

But the worst thing that has happened was a sort of bomb-shell that was thrown by Dr. Frank S. Billings, of Chicago, in a recent address. Dr. Billings says that Virchow's opposition to Darwinism was excited by envy. To this an irate Briton replies in the *British Medical Journal* to the effect that it was not envy, but "lack of scientific imagination," that ailed Virchow. The *British Medical Journal* hints that Virchow, if he could revisit the pale

glimpses of the moon, would beg to be rescued from his friends.

The whole problem, in our judgment, is hardly worth the expenditure of much controversial ink. The adherence of any particular man to some particular doctrine is not essential to the truth of that doctrine. We agree with Mr. Roger Williams, the writer above referred to, that Virchow was not as great a man as Darwin, and we are quite convinced that the truth of evolution is quite apart from the question whether Virchow believed in it or not.

The Coal Famine.—As was freely predicted, those parts of the country that are dependent on anthracite coal are in the midst of a coal famine. In Philadelphia the situation is critical, and the prospects of relief are not bright.

There are some anomalies in the situation that cannot but impress the shivering Philadelphian with astonishment. Although Philadelphia is in such close proximity to the mines, the prices in this city range higher than in more distant places. For instance, in some parts of Philadelphia coal commands \$9 a ton, while in New York City it was being sold last week for \$7.50, and in more distant western Massachusetts and in upper New York State the price was quoted at \$6.50. Somebody apparently is reaping a harvest.

The pity of it is that this harvest is gathered largely from the poor. The effect upon health of this deplorable situation can only be surmised. There will be no statistics to reveal the amount of suffering caused by this disturbance of the relations of capital and labor. The people, however, will draw their own conclusions as to the merits of a contest that imposes untold suffering upon the poor and the invalid.

Current Comment.

WOMEN NURSES IN THE ARMY.

It seems to me that the medical officer who, having within the last four years served in the army or navy with trained women nurses, remains honestly opposed to their permanent and extensive employment in military hospitals, must be a direct descendant of the old Scotchman who thanked the Lord that he was not open to conviction.

—Surgeon J. W. Ross in a Recent Article.

SERUM AND SENSATIONALISM.

One of the great hindrances to the progress of scientific medicine at the present day is the feather-headedness or unscrupulous sensationalism of the daily press. New remedies for incurable diseases are announced every day with a confidence born of ignorance and an utter disregard of consequences. It is impossible to estimate the number of poor sufferers to whom these announcements bring the despair that follows the disappointment of unfounded hope. They might say to the irresponsible scribes who mislead

them what the frogs in the fable said to the boys throwing stones into the water: 'It is sport to you, but it is death to us!'

* * * * *

While Professor W. H. Welch was on the ocean, homeward bound, after delivering the Huxley Lecture, a New York paper printed an alleged dispatch from London in which it was said that the distinguished pathologist of Baltimore had announced the discovery of a serum which would prevent all disease and cure all diseases.

* * * * *

Fortunately so stupid an invention could do no real harm to any one, but it is a disgrace to journalism that a man of the scientific standing of Professor Welch should be victimized to make a penny-a-liner's paragraph.

—*British Medical Journal*.

ANTI-VIVISECTION.

Anti-vivisectionists will have to exercise all of their remarkable ingenuity in the handling of facts if they are to save themselves from being seriously impressed by what Dr. W. W. Keen, of Philadelphia, calls his "single concrete example that knowledge gained by animal experimentation is an immense boon to humanity." As for preventing others from seeing in the case of the injured Annapolis cadet—which is, of course, only one of many of the same sort—exactly what Dr. Keen sees in it, that would be a hopeless task, since the reputation of this particular surgeon renders it as inexpedient to deny his veracity as to question his skill.

—*New York Times*.

Correspondence.

THE ALCOHOL QUESTION.

By T. D. CROTHERS, M. D., of Hartford, Conn.

To the Editor of the Philadelphia Medical Journal:

In 1839 a declaration of opinions concerning the danger of alcohol was made by some London physicians and received the signatures of 78 medical men in London, Glasgow and Edinburgh. In 1847 a second declaration was made asserting the danger of the indiscriminate use of alcohol and deploring its ravages. This received the signatures of nearly 2,000 physicians in England and on the continent. A third declaration appeared in 1871 in which alcohol was called a most dangerous drug only to be used by physicians, and its use as a beverage to be discouraged. This received the signatures of over 3,000 medical men, of which 38 were American physicians. Now a fourth declaration is being circulated which has already been signed by over a 1,000 men of Europe. The following is the full text of the manifesto:

"The purpose of this is to have a general agreement of opinions of all prominent physicians in civilized countries concerning the dangers from alcohol to check and prevent the evils from this source.

"In view of the terrible evils which have resulted from the consumption of alcohol, evils which in many parts of the world are rapidly increasing, we, members of the medical profession, feel it to be our duty, as being in some sense the guardians of the public health, to speak plainly of the nature of alcohol and of the injury to the individual and the danger to the community which arise from the prevalent use of intoxicating liquors as beverages.

"We think it ought to be known by all that:

"1. Experiments have demonstrated that even a small quantity of alcoholic liquor, either immediately or after a short time, prevents perfect mental action and interferes with the functions of the cells and tissues of the body, impairing selfcontrol by producing progressive paralysis of the judgment and of the will; having other markedly in-

jurious effects. Hence alcohol must be regarded as a poison and ought not to be classed among foods.

"2. Observation establishes the fact that a moderate use of alcoholic liquors, continued over a number of years, produces a gradual deterioration of the tissues of the body, and hastens the changes which old age brings, thus increasing the average liability to disease (especially to infectious disease) and shortening the duration of life.

"3. Total abstainers, other conditions being similar, can perform more work, possess greater powers of endurance, have on the average less sickness and recover more quickly than nonabstainers, especially from infectious diseases, while they altogether escape disease specially caused by alcohol.

"4. All the bodily functions of a man, as of every other animal, are best performed in the absence of alcohol, and any supposed experience to the contrary is founded on delusion, a result of the action of alcohol on the nerve centers.

"5. Further, alcohol tends to produce in the offspring of drinkers an unstable nervous system, lowering them mentally, morally and physically. Thus deterioration of the race threatens us, and this is likely to be greatly accelerated by the alarming increase of drinking among women, who have hitherto been little addicted to this vice. Since the mothers of the coming generation are thus involved, the importance and danger of this increase cannot be exaggerated.

"Seeing, then, that the common use of alcoholic beverages is always and everywhere followed, sooner or later, by moral, physical and social results of a most serious and threatening character, and that it is the cause, direct or indirect, of a very large proportion of the poverty, suffering, vice, crime, lunacy, disease and death, not only in the case of those who take such beverages, but in the case of others who are unavoidably associated with them, we feel warranted, nay, compelled to urge the general adoption of total abstinence from all intoxicating liquors as beverages as the surest, simplest and quickest method of removing the evils which necessarily result from their use. Such a course is not only universally safe, but is also natural.

We believe that such an era of health, happiness and prosperity would be inaugurated thereby that many of the social problems of the present age would be solved."

I have been appointed on the committee to solicit the signatures of American physicians and hope there will be as much enthusiasm and interest on this side of the ocean to show our sympathy with the great anti-alcoholic movement of the age as in Europe. I shall be pleased to receive the signature, titles and address of any physician who may wish to help on this work and indicate to the world that the leading physicians in America are both anxious and willing to assist and aid in the correction of the alcoholic evil. Address either by note or postal card.

Reviews.

Minor Surgery and Bandaging, Including the Treatment of Fractures and Dislocations, the Ligation of Arteries, Amputations, Excisions and Resections, Intestinal Anastomosis, Operations Upon Nerves and Tendons, Tracheotomy, Intubation of the Larynx, etc. By Henry R. Wharton, M. D., Professor of Clinical Surgery in the Woman's Medical College of Pennsylvania; Surgeon to the Presbyterian Hospital and the Children's Hospital; Consulting Surgeon to St. Christopher's Hospital, and the Bryn Mawr Hospital; Fellow of the American Surgical Association. Fifth Edition, enlarged and thoroughly revised. Lea Bros. & Co., Philadelphia and New York, 1902.

The fact that this is the fifth edition renders a review of the book hardly necessary. It has held a well-deserved place in the library of students and general practitioners

for a long time. We can find more to commend than to criticize in this volume. It certainly fulfils its function as a book on minor surgery in a most satisfactory manner, since nearly every minor surgical procedure is well described and illustrated. The portion devoted to bandages is very good and will be found of great help to those who wish a guide in this respect. One omission from the volume we consider unfortunate, although it could hardly be called a minor condition. We refer to strangulated hernia and its treatment. This operation, in our opinion, goes hand-in-hand with such operations as tracheotomy, the ligation of vessels and amputations, and a description of the operation for strangulated hernia is more needed in a book of this kind than descriptions of gastrostomy and gastro-enterostomy, both of which are described and illustrated. The author's only reference to hernia consists in a description of the application of trusses. The portion dealing with fractures is very complete, and we find here but one criticism to offer, and that is that the author has not impressed upon his readers the necessity of making early and frequent movements of the fingers in fractures of the lower end of the radius. We feel that, if this is practised in all fractures of the lower end of the radius there would be much less stiffness to overcome after union was perfect. The danger of displacement, after reduction has been complete, from these movements is extremely slight, and the time and suffering saved the patient is great. The author's experience with tracheotomy and intubation has been extensive, and he presents a concise and comprehensive description of these operations. We believe that this work will continue to hold the position its early editions won for it. [J. H. G.]

Transactions of the American Dermatological Association
May 30 and 31, and June 1, 1901. Official Report of the Proceedings by Frank Hugh Montgomery, M. D., Secretary. New York, Rooney & Otten Printing Co., 1902.

The Transactions of the American Dermatological Association with the discussions in full of the papers read at its twenty-fifth meeting is now before us. The majority, if not all of these contributions, have been printed in the various medical journals and many of these have been abstracted in our columns. An interesting feature of this volume is the carefully prepared table of the 22,455 cases of diseases of the skin treated by members of the Association during the year. [T. L. C.]

The Medical Visiting List or Physician's Diary for 1903.
New, Revised Edition. New York. William Wood & Co.

This serviceable little book is even better than were those of previous years. For not only has it pages devoted to the methodical tabulation of visits made every day during 1903, but there are tables of approximate equivalents, an obstetric calendar, the doses of all drugs in both apothecaries' and metric measure, the number of drops to the dram of different fluids, antidotes for poisons, and pages of other valuable facts which may be of use to the hurried physician from time to time. [M. O.]

Anleitung zur Diagnose und Therapie der Kehlkopf-, Nasen- und Ohrenkrankheiten. Von Dr. Richard Kayser, in Breslau. Zweite vermehrte und verbesserte Auflage. Mit 130 Abbildungen. Verlag von S. Karger, Berlin. 1903.

The author has condensed into 178 pages the essential elements underlying the diagnosis and treatment of diseases of the nose, throat and ear. The book is complete and practical, and bears the relation to the larger book on these subjects that a work on minor surgery does to one on general surgery. Rare conditions and major operations are merely indicated. The author is non-partisan in his presentation of debated views and questions: and having written for the benefit of his postgraduate students, he has produced a book that students everywhere can read with profit. [W. G. B. H.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Municipal Hospital, Philadelphia.—At the meeting of City Councils, held December 16, the ordinance for the purchase of the Macalester farm, in the Thirty-third ward, as the site for the new Municipal Hospital, was passed, in spite of the protest of the representatives from the Thirty-third and neighboring wards.

Society Meetings Next Week.—The following societies will meet next week at the College of Physicians, Philadelphia, at 8.15 P. M.: Tuesday evening, December 23, Neurological Society, and Wednesday evening, December 24, County Medical Society.

Consumption Pavilions, Philadelphia Hospital.—The contract to build the 8 glass pavilions, devised by Dr. J. V. Shoemaker, president of the Board of Charities and Correction, was awarded December 9, to cost \$125,000. The pavilions are to be completed in one year. While money is not yet available, it is understood that the Finance Committee of City Councils will provide for their payment by including the amount of the contract in the appropriation bill of that department next year. These pavilions will be constructed of steel and glass, with the roof and sides arranged on pivots, so that they can be swung open in fair weather. Rubber gaskets will make them weather-tight when closed.

Chestnut Hill Hospital, Philadelphia.—Owing to the demand made for the admission of poor consumptives to the Chestnut Hill Hospital, it will be necessary to open a fourth building. This will increase the expenses of the hospital \$4000.

Hospital Association of Philadelphia.—Twenty-five hospitals sent representatives to a meeting, held December 10, at which this association was organized. A committee of 5 was appointed to obtain information about, and to recommend, a uniform method of maintenance. Committees were also appointed to report on the subject of nurses and the abuses in dispensary practice and how to avoid them. The objects of this association are: To consider all questions that may pertain to hospital management; to discuss matters and methods that may increase the efficiency of hospital service; to consider possible abuses and methods to protect hospitals from imposition; to confer, when necessary, with State and municipal authorities; to devise methods for protection from contagious and infectious diseases, and to secure such comity and co-operation as may promote the best interest of all the hospitals of Philadelphia and of the public good. The association is advisory only, and whatever it recommends is to be submitted to the Boards of Managers of the hospitals represented for consideration and action.

Stillé Medical Society.—Dr. L. O. Howard, of the Department of Agriculture, Washington, delivered an illustrated lecture on "Some Insects Concerned in the Transmission of Disease," before the Stillé Medical Society, December 12. After the lecture a reception was given by Dr. John H. Musser to Dr. Howard and the members of the Stillé Medical Society, at the University Club.

Children's Hospital, Philadelphia.—Dr. Alfred Hand, Jr., has recently been appointed visiting physician, taking the place formerly filled by the late Dr. Frederick A. Packard.

Methodist Hospital, Philadelphia.—Dr. Thomas L. Coley has been appointed visiting physician to the Methodist Episcopal Hospital, in the place of Dr. J. P. Crozer Griffith, who recently resigned.

Hughes Memorial Tablet.—The tablet in memory of the late Dr. D. E. Hughes has not yet found a suitable site. The College of Physicians and the new Insane Hospital, soon to be erected, have both been suggested as the proper place for the erection of the memorial. Over \$433 have already been contributed to the fund for the erection of this memorial.

St. Luke's Hospital, South Bethlehem.—By the will of the late Benjamin Barge, of Mauch Chunk, \$5000 were left to St. Luke's Hospital.

Free Sanatorium for Consumptives.—The establishment of a free sanatorium by the Pennsylvania State Forestry Commission near Mont Alto Park, at an elevation of nearly 2000 feet, not far from Shippensburg, has been proposed. It is said that 30 cabins will be built, with a large assembly

room in a white pine forest. The ground is thickly covered with pine needles, there is no underbrush, and there is good mountain spring water.

The Health of Philadelphia.—For the week ending December 13 there were 124 cases of typhoid, with 17 deaths, as compared with 129 cases, with 8 deaths, during the preceding week. There were also reported 73 cases of diphtheria, with 13 deaths, as compared with 50 cases, with 3 deaths, the week before; 61 cases of scarlet fever, with 3 deaths, as compared with 54 cases, with 4 deaths, the week before; and 4 cases of smallpox, with 2 deaths, as compared with 6 cases and one death during the previous week.—A case of smallpox was discovered in Downingtown, the patient being removed to the Chester County Hospital.—An epidemic of typhoid fever is reported in Bellefonte, where there are about 40 cases of the disease now under treatment. The disease was spread by the milk delivered by one milkman, an analysis showing abundant typhoid bacilli in the milk. It is not yet known how the milk became affected.

Penrose Gynecological Society, Philadelphia.—Dr. Matthew D. Mann, of Buffalo, delivered an address before the Penrose Gynecological Society of the University of Pennsylvania, December 18, 1902. Afterward a reception was given in honor of Dr. Mann.

In Memory of Dr. Packard.—Subscriptions are being collected to pay for the painting of a portrait of the late Dr. Frederick A. Packard, to be presented to the College of Physicians, Philadelphia. The committee in charge consists of Dr. H. C. Wood, chairman; Dr. Alfred Stengel, secretary, and Drs. C. W. Burr, F. X. Dercum, S. M. Hamill, R. H. Harte, R. G. LeConte, M. J. Lewis, J. H. Musser, W. Osler, J. A. Scott and John B. Shober.

NEW YORK AND NEW JERSEY.

Bubonic Plague in New York.—The steamship *Saxon Prince*, which reached New York from Durban, South Africa, December 15, had 3 patients with bubonic plague on board. The examination in all cases showed plague bacilli, thus confirming the diagnosis made by the Health Officer at New York. The steamship will be sent to sea to discharge the water and sand ballast taken on at Durban. The passengers and crew will then be transferred to Hoffman's Island, where they will be kept 10 days for observation. The vessel will be washed and thoroughly disinfected before being released.

New York Sanatorium for Consumptives.—Steps taken at a meeting of the committee on the prevention of tuberculosis of the Charity Organization Society, December 12, assure the early inauguration of an institution for the special and exclusive treatment of tubercular patients in New York City. The sanatorium will not be located within the limits of the city, but will be easily accessible. The expense of establishing and maintaining the hospital will be met by private subscriptions. It is stated that a sufficient sum is already pledged to assure the success of the undertaking.

Dr. Lorenz in New York.—Dr. Adolf Lorenz, of Vienna, who spent 5 days in Philadelphia, reached New York, December 13. December 14 he operated upon 2 cases of congenital dislocation of the hip in a private hospital. December 15 he operated at the Hospital for the Ruptured and Crippled; December 16, at the Polyclinic Hospital; December 17, at the Post-Graduate Hospital; December 18, at Cornell University Medical School, and December 19, at Bellevue Hospital. The Orthopedic Section of the New York Academy of Medicine gave a dinner and reception to Dr. Lorenz at the University Club, December 19. Fully 8000 people have applied at the different hospitals in New York with the expectation of being treated by Dr. Lorenz.

Diphtheria in New Jersey.—There are epidemics of diphtheria reported in both Trenton and Passaic. In the latter place more than 80 cases have already occurred. In a number of cases the infection was spread by lead pencils in the public schools. Fewer cases are reported in Trenton.

Appointments.—Dr. W. M. Leszynsky has been appointed neurologist to the Methodist Hospital, New York City.—Dr. G. M. Calkins, of Columbia University, has been offered the position of consulting biologist of the New York State Pathological Laboratory.

NEW ENGLAND.

Foot and Mouth Disease.—No cases of this disease have been discovered near New Bedford, Mass. Cases have,

however, been found at Hancock and Hudson, N. H. The Agricultural Departments of both Maine and New York States are guarding the border line most carefully to prevent the introduction of diseased cattle. The House of Representatives has passed the appropriation of \$500,000 for the use of the Department of Agriculture for stamping out the epidemic of apthous stomatitis accompanied by vesicular eruptions on the heels, toes and udders of cattle in New England. All freight cars unloaded in infected districts must now be disinfected before being used again.

Insane Hospital, Northampton, Mass.—In this institution as many as 840 patients have been under treatment at one time during the past year, while there is room for but a few over 600. The daily average is 636. Hundreds of the patients have been sleeping in the corridors.

Bequests.—By the will of the late Mrs. N. E. Rust, \$10,000 are left to the Addison Gilbert Hospital, Gloucester, Mass.; \$5000 to the Children's Hospital, Boston, and \$2000 each to the Massachusetts Eye and Ear Infirmary, Perkins Institute for the Blind, Home for Aged Couples, New England Hospital for Women and Children and several other charities. About \$15,000 of the residuary estate are also left to the Addison Gilbert Hospital, Gloucester.

WESTERN STATES.

Bubonic Plague in San Francisco.—Still another case occurred in November, making 3 fatal cases of the plague in San Francisco during the month of November, 1902.

Diseases Among the Indians.—Dr. Wyman, Government physician in the Sac and Fox Indian Agency, in Oklahoma, states that a large majority of the tribe is afflicted with tuberculosis and syphilis. He believes that the tribe will

American Röntgen Ray Society.—At the last meeting, become extinct in a few years. Only 479 members are now left.

held in Chicago, December 11, the following officers were elected for the ensuing year: President, A. W. Goodspeed, Philadelphia; vice-presidents, Drs. J. B. Murphy, Chicago, and W. J. Laylor, Cincinnati; secretary, Dr. J. B. Bullitt, Louisville, and treasurer, Dr. W. A. Price.

Diphtheria at Trempealeau, Wis.—The schools have been closed and all public gatherings prohibited, on account of the appearance of a number of cases of diphtheria.

St. Mary's Hospital, Chicago, Ill.—Dr. J. B. Herrick has been appointed physician-in-charge of the Department of Internal Medicine and Dr. J. E. Rhodes, in charge of the Department of Laryngology, in the new St. Mary's Hospital, on North Leavitt street.

Southern Colorado Medical Association.—The regular annual meeting was held at Colorado Springs, December 2 and 3. The following officers were elected for the ensuing year: Dr. M. Beshoar, Trinidad, president; Dr. J. A. Black, Pueblo, treasurer, and Dr. C. F. Taylor, Pueblo, secretary.

Smallpox in Michigan.—Smallpox has reappeared in 3 counties in the Upper Peninsula within the past week. There are 10 cases in the detention hospital in Houghton county, several cases in Menominee county and one case has already developed at Wakefield, in Gogebic county.

Western Surgical and Gynecological Association.—The next annual meeting will be held at St. Joseph, Mo., December 29 and 30, 1902. Dr. George H. Simmons, of Chicago, Ill., is secretary of this association.

Seven New Poisons Discovered.—Dr. Julius Schlotterback, professor of pharmacognosy in the University of Michigan, has recently discovered 7 new poisons, 3 of these, 2 of which have been named adlumine and adlurnidine, being made from Allegheny vine. From the Calendine poppy 2 other poisons have been extracted which he has called stylophine and disphylline and from the Japanese Calendine, a poison named bacconidine and another, as yet unnamed, have been isolated.

SOUTHERN STATES.

The American Public Health Association.—There were over 300 delegates at the opening of the thirtieth annual meeting, at New Orleans, December 8. The first day was devoted to the report of the committee on standard methods of water analysis, before the section on bacteriology and chemistry, of which Dr. F. F. Westbrook, of Minneapolis, was chairman. The next day a resolution was adopted, adding Cuba to the list of countries represented. Dr. Wingate, of Milwaukee, announced the failure to secure the

creation by Congress of a national department of health. He also endorsed the Spooner law in its present shape. Papers were read on "Cause and Prevention of Infant Mortality," by Dr. E. S. Munoz, Mexico; "Wet-Nurses, Their Hygienic Importance," by Dr. R. N. Prado, Mexico; "Examination of Rooms Occupied by Diphtheria and Tuberculosis Patients," by Dr. H. W. Hill, Boston, and "Experiments in Disinfection with Formaldehyde Gas," by Dr. M. P. Ravenel, Philadelphia. At the meeting held December 10, a resolution was passed recommending the establishment of a national consumption sanatorium. The resolution asking for the abolition of quarantine was reported back by the executive committee, with a recommendation that it was not expedient to adopt it at this time. This recommendation was sustained. A motion was adopted instructing the President to appoint delegates to the International Tuberculosis Congress in St. Louis, in 1904. At the last meeting, held December 12, the following officers were elected for the ensuing year: President, Dr. Walter Wyman, Surgeon-General, U. S. P. H. and M.-H. S.; vice presidents, Dr. D. P. Wilkinson, New Orleans, and Dr. J. L. Leal, New Jersey; treasurer, Dr. F. W. Wright, Connecticut, and secretary, Dr. C. O. Probst, Columbus, Ohio. The next meeting will be held in Washington, D. C. Resolutions were adopted favoring a sanitary exhibit at the St. Louis Exposition and urging that illuminating gas be placed under municipal control. Dr. H. L. Russell, of Wisconsin, was elected chairman of the section on bacteriology and chemistry.

International Quarantine League.—As a result of the Convention of the American Public Health Association, the International Quarantine League has been organized at New Orleans, with Dr. J. L. Lindsay, of Havana, as president, and 150 medical men from the United States, Cuba, Mexico and South America, as members. The League accepts the doctrine that the mosquito is the only means of transmitting yellow fever, and that destruction of the mosquitoes is the proper protection against an epidemic of yellow fever. The object of the League is to secure a modification, if not the abolition, of all quarantine against yellow fever.

Midshipmen Ill.—Over 100 of the midshipmen at the U. S. Naval Academy, at Annapolis, suddenly became ill one day last week. The cause of the illness was most probably ptomaine poisoning. In spite of thorough investigations, it has not yet been found what article of food caused the disturbance. Most of these patients were not seriously inconvenienced.

Smallpox in Wilmington, Del.—Two more cases were discovered in negroes, December 10. These patients were also removed to the Emergency Hospital at Farnhurst.

Johns Hopkins Historical Society.—Dr. Howard A. Kelly read a paper on some German Contributions to the Early History of Appendicitis, at the last meeting, December 8, giving a history of the discovery of the disease. The first clear account of the symptoms of the disease was given by German physicians, who named it perityphlitis. All obscurity on the subject was dissipated by Fitz, of Boston, in 1886. One of the greatest papers on the subject was that written by Volz, in 1846. At the same meeting it was announced that Dr. Kelly would soon write an account of the life of the late Major Walter Reed, Surgeon, U. S. A.

Robert Garrett Hospital, Baltimore.—A new dispensary, to accommodate 100 people, with special waiting room for patients with contagious diseases, and a new sun room, with removable glass sides, is now being added to this hospital on North Carey street. The expense of the additions is maintained by Mrs. H. B. Jacobs,

CANADA.

(From Our Special Correspondent.)

Sanatorium for Consumptive Residents of Toronto.—The Toronto City Council recently adopted the recommendation, made by the Board of Control, that the following question be submitted to those qualified to vote at the forthcoming municipal election: "Are you in favor of the city contributing \$50,000 for the establishment of a sanatorium for the treatment of residents of Toronto suffering from consumption?" Should this secure a majority, it is recommended that the City Solicitor and Medical Health Officer prepare and seek to obtain such legislation as may be necessary, to enable the city of Toronto to grant the money to such a sanatorium upon terms and conditions approved

by the City Council. This \$50,000 sanatorium by-law was urged by Dr. E. J. Barrett in a recent address on the work of the Anti-Consumption League. The league has asked for \$50,000, on condition that \$50,000 more be raised by voluntary contribution. After this much has been accomplished, the \$4000 for land and buildings and \$1.50 per week for each patient treated, secured 2 years ago from the legislature, will become available. He believes that the time will come when the municipality will have to erect and maintain sanatoria for consumption, just as special hospitals are now maintained for the treatment of smallpox, diphtheria and scarlet fever.

No Foot and Mouth Disease in Canada.—Lord Strathcona, Canadian high commissioner in London, has cabled that a Montreal despatch printed in a London newspaper stated that there was foot and mouth disease among cattle in Canada. The Agricultural Department at Ottawa has replied that the report is absolutely unfounded, and that every precaution against the introduction of the disease has been taken.

MISCELLANY.

Smallpox in the United States.—From June 28 to December 12, 1902, there have been 14,824 cases of smallpox in the United States, with 768 deaths. For the same period in 1901 there were reported 16,221 cases, with but 525 deaths.

Plague in Hawaii.—Between November 8 and 18, 4 cases of plague occurred in Honolulu, one in a Japanese, 2 in Chinese and one in a Portuguese. Another case is also reported outside of the city.

Cholera in the Philippines.—While the disease has greatly decreased in Manila and most of the provinces, a spread of the epidemic, which is believed to be quite serious, is reported among the Lake Moros.

Obituary.—Dr. William T. Garwood, at San Francisco, Cal., November 21, aged 40 years.—Dr. Charles H. Shaffer, at Elizabeth, Pa., November 21, aged 44 years.—Dr. A. C. Brasel, at Petros, Tenn., November 21.—Dr. Martin B. Billingslea, at Baltimore, Md., December 8, aged 54 years.—Dr. J. N. Rice, at Scranton, Pa., December 9, aged 57 years.—Dr. Francis F. Forwood, at Boydton, Va., December 9, aged 34 years.—Dr. William H. Stayner, at Chicago, Ill., December 3, aged 42 years.—Dr. Curtis A. Wood, at Dublin, N. H., December 1, aged 56 years.—Dr. James F. McCone, at San Francisco, Cal., December 7, aged 31 years.—Dr. John J. Dooley, at New York City, December 7, aged 35 years.—Dr. Joseph Charles, at Newport News, Va., December 12.—Dr. Levi C. Halstead, at Milwaukee, Wis., December 12, aged 84 years.—Dr. W. B. Stevens, at Hartford, Conn., December 13.—Dr. John M. Krim, at Louisville, Ky., December 10, aged 60 years.

GREAT BRITAIN.

The Islington Smallpox Epidemic.—In Islington during the last smallpox epidemic, from August 27, 1901, to August 29, 1902, no child under 10 years old who had been vaccinated died, but out of 36 not vaccinated there were 17 deaths. Out of a total of 317 cases, 61 patients died. There were 236 cases of vaccinated patients and 29 deaths (12.29 per cent.), 65 unvaccinated cases and 30 deaths (46.15 per cent.), and of 16 cases unknown there were 2 deaths.

Cancer Research in Scotland.—Dr. Bashford, second assistant to Sir Thomas Fraser, has been appointed director of the scheme of Cancer Research, recently inaugurated in Scotland.

Resignations.—Dr. A. E. Wright has resigned his appointment as professor of pathology in the Army Medical School, and has become pathologist and bacteriologist in St. Mary's Hospital, London.—Sir Michael Foster, the well-known physiologist, has announced his intention of resigning his seat in Parliament, in which he represents the University of London.

St. Bartholomew's Hospital, London.—H. T. Butlin, Dean of the Faculty and Surgeon to St. Bartholomew's Hospital, recently resigned the position of surgeon, on account of the pressure of private practice. He has been elected consulting surgeon and one of the governors of the hospital, and has been asked to deliver a course of lectures on clinical surgery. He will, for some time, still retain his position as dean of the faculty.

Obituary.—Dr. David Little, of Manchester, died November 27, at Congleton, aged 62 years. He was graduated from

the University of Edinburgh in 1861. In 1863 he was appointed house-surgeon to the Manchester Royal Eye Hospital, with which institution he was connected for over 30 years. He was also senior ophthalmic surgeon to the Royal Infirmary, and lecturer on ophthalmology at Owens College, from 1878 to 1899. In 1901 he was elected president of the Ophthalmological Society of the United Kingdom. He was also a prominent member of the Manchester Medical and Ophthalmological Societies.—The death is also announced of James Hakes, M. R. C. S., L. S. A., consulting surgeon to the Royal Infirmary, Liverpool, November 27, in his eighty-first year.

CONTINENTAL EUROPE.

The Latest Evolution Theory.—Dr. B. Hagen, a prominent German anthropologist, has recently expressed the opinion that the change in man from the original shape to his present one took place in Europe. He has discovered near Krapina, in Croatia, 10 skeletons, the flesh from which had evidently been eaten by cannibals. Dr. Hagen judges from the appearance of the bones that the speech muscles were only slightly developed in those persons, and that they could not speak, as language is understood now. They had huge heads, broad faces, with flat noses, strong masticating bones and muscles, short legs and arms of medium length, and the greater part of their bodies was covered with coarse reddish hair.

International Congress for the Prevention and Treatment of Industrial Diseases.—In connection with this congress, which is to be held at Milan, Italy, in 1904, at the time of the festivities to celebrate the opening of the Simplon tunnel from Switzerland, an exhibition of industrial and professional hygiene will be held. The preliminary program, announcing the subjects to be discussed, will soon be sent out. At the head of the committee of organization of this congress is Dr. M. de Cristoforis.

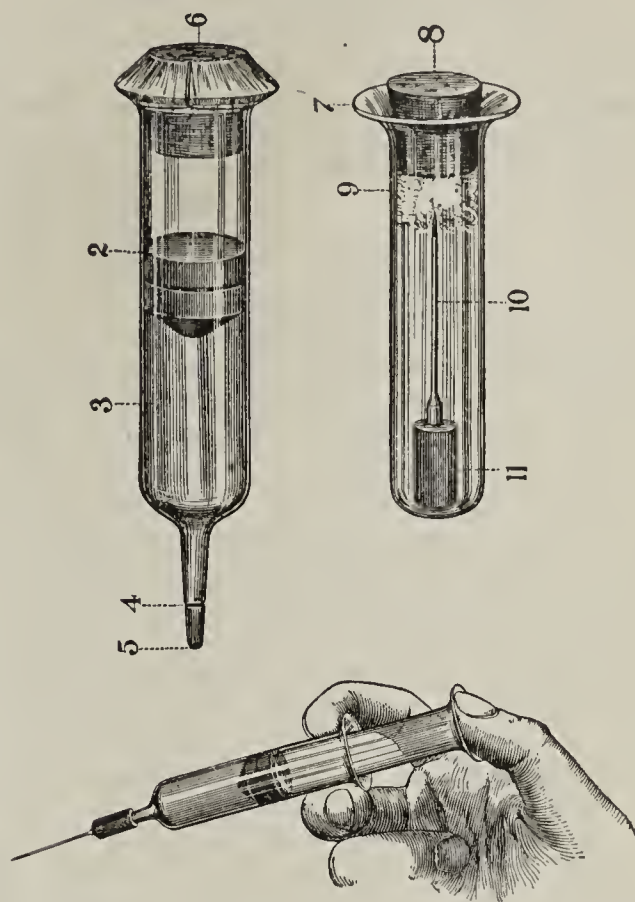
Italian Vital Statistics.—Prof. Sormani has recently discussed Italian vital statistics. His principal conclusions are that the birth rate fluctuated between 39.34 per 1,000 (1876) and 33.49 (1898), while the corresponding death rates were 34.39 (1869) and 21.87 (1899), during the last forty years. The birth has exceeded the death rate every year. In 1867 the excess was 2.40 and 1897 it was 12.80. During the years 1862-99 the population increased by 10,000,000. Comparing the periods 1862-75 and 1897-99, he concludes that, owing to improved sanitary conditions, there is an annual saving of 8 lives in every thousand. At least 200,000 people have been effectively saved from death, and more than 4,000,000 from illness during the period examined.

Horse Flesh in Berlin.—Though horse flesh has long been a regular article of food in Germany, municipal ordinances in most cities require that it be sold as horse meat. The recent high price of meat, however, has caused extensive evasions of the law, and there has been a great increase in the sale of horse steaks and soup bones as beef. Old broken-down horses are brought by shiploads from England and are fattened for butchering. In consequence of the exposure of the fact that large quantities of horse meat is being sold as beef or used for making sausages, the price of horses for slaughtering has decidedly diminished.

A Child Exchange.—Berlin has a child exchange. The poorer people of the city who cannot afford outings send their children to country peasants and receive in return, for an equal length of time, peasant children who want to see the city. The plan has worked so well that the charitable women who originated it would like to extend it. There is even talk of exchanging children between neighboring countries, so that they will gain still more valuable experience.

Obituary.—Dr. Ladislaus Celakovsky, professor of botany in the Bohemian University at Prague, died recently, in his sixty-eighth year.—The death is announced of Dr. Strapart, emeritus professor of medicine at Rheims.—Dr. A. Paci, professor of surgical pathology at Pisa, the originator of the operation for dislocation of the hip, which was slightly modified by Lorenz, also died recently.—Dr. Nathaniel Feuer, professor of ophthalmology in the University of Buda Pest, died November 25, aged 58 years.—Dr. William Rager, the well-known orthopedist, died in Copenhagen recently, aged 31 years.

New Instruments and Devices.



A New Device for Furnishing Antitoxin.—A new antitoxin syringe has recently been devised, consisting of 2 pieces. The antitoxin is contained in the cylinder-shaped glass syringe, hermetically sealed at the lower end; the antitoxin is held in position by a sterile rubber plug, acting both as a washer and as a protection against outside contamination. The cap of this piece is closed with a paraffined cork. The other piece consists of a small glass tube in which the needle is kept with rubber tubing applied to its larger end. These have already been sterilized and are held in the tube by a cork. For use the sealed end of the syringe is broken off, the needle is taken from the other sterile glass tube and applied to the broken end of the syringe by the rubber tubing. The paraffined cork is then removed, and the small rubber tube is used as a plunger in emptying the syringe. This instrument, introduced by the H. K. Mulford Company, of Philadelphia, prevents even momentary contacts of the serum with the outside air and, as the needle plunger and syringe are thoroughly sterilized, an aseptic injection is insured.

Rats and the Plague.—After the discovery of the plague bacillus by Kitasato and Yersin, the remarkable susceptibility of rats to the disease became apparent from inoculation experiments. It was also found that the rats ate the bodies of patients dead from plague, thus inoculating themselves. Therefore, cases of plague may appear suddenly in human beings, where it is afterwards found that rats spread the contagion. Where many dead rats are found, an outbreak of the plague is to be expected. In a recent article in *La Médecine Moderne*, for August 13, 1902, Olschanetsky, of Constantinople, has reviewed this subject with historical details. But epidemics of plague have been observed in which rats played no role. He advises preventing the introduction of rats from ships, especially those with disease aboard. For though an epidemic among rats cannot always be shown to have been the cause of an epidemic among human beings, it probably plays an important etiological role in the propagation of the plague.

[M. O.]

The Latest Literature.

BRITISH MEDICAL JOURNAL.

November 29, 1902.

1. Observations on Atonic Motor Insufficiency and Dilation of the Stomach; their Causes, Diagnosis and Treatment. ROBERT SAUNDBY.
2. Hair-Balls and other Concretions in the Stomach.
W. SOLTAU FENWICK.
3. Dyspepsia and its Treatment by Antiseptics.
GUTHRIE RANKIN.
4. On Four Cases of Perforating Gastric Ulcer, of which Three Recovered. ROBERT JONES.
5. Operations for Gastric Ulcer, Acute and Chronic.
RUSHTON PARKER.
6. The Croonian Lectures on the Natural History and Pathology of Pneumonia. (Lecture III.)
J. W. WASHBOURN.

1.—From a study of **atonic motor insufficiency and dilation of the stomach** Saundby concludes (1) that atonic dilation of the stomach is a common condition; that it occurs about twice as often in women as in men, and most frequently between the ages of 20 and 50, and that it is 10 times more common than dilation from obstruction, which generally occurs after 30 years of age. (2) That it is caused by neurasthenia or by any prolonged debilitating illness which may set up neurasthenia. (3) That there are no characteristic symptoms and that no correspondence exists between the amount of dilation and the severity of the symptoms. (4) That the diagnosis can, in the majority of cases, only be made by the distension of the stomach by CO₂ evolved from 120 grains of sodium bicarbonate and 90 grains of tartaric or citric acid. (5) That the prognosis does not depend upon the extent of dilation, but rather upon the duration of the symptoms, the general health of the patient and the effect of treatment. (6) That the treatment must be mainly that of neurasthenia, supplemented by the use of such drugs and diet as may be indicated by complications, for example, gastritis. (7) That gastro-enterostomy often fails to relieve these cases.
[J. M. S.]

2.—The habit of hair swallowing is usually acquired in early life; it originates in the trick, frequently practised by young girls, of holding a lock of hair in the mouth while reading a book or of biting the ends of a coil when angry or excited. It may arise from the inclination, which is so strong in some people, to fill the mouth with any substance with which they happen to be working. It may be due to some eccentricity of which the patient herself is often quite unconscious. Until the concretion has attained a considerable size and has seriously diminished the capacity of the stomach, it seldom produces any special symptoms. When the size of the **hair-ball** has increased sufficiently, the patient begins to experience severe pain after meals, after a prolonged period of intractable dyspepsia; this may be accompanied with flatulence, distension and nausea. Vomiting sometimes occurs after every meal. The vomit is scanty, acid and sometimes bilious or slightly blood-stained; but hair is seldom, if ever, observed in it. Anemia is always present and may be accompanied with dyspnea, palpitation of the heart and edema of the feet. The appetite is variable, but occasionally continues good; the tongue is foul, the breath offensive and attacks of diarrhea are apt to alternate with periods of constipation. Emaciation proceeds very slowly unless the vomiting is excessive. Physical examination shows a well-marked abdominal tumor, which is hard, smooth and superficial, and has a well-defined lower border; it is dull on percussion and seldom exhibits any tenderness unless it has been subjected to prolonged manipulation or unless there is co-existing ulceration of the stomach; the tumor is usually extremely mobile. The duration of the disease averages

about 15 years. With the exception of 2, in which laparotomy was performed, all the recorded cases have terminated fatally. In nearly $\frac{1}{2}$ of the entire number, death was due to ulceration and perforation of the stomach, and in 2 others the duodenum was the seat of a similar lesion. Fatal hematemesis occurred in one instance, while in 2 cases intestinal obstruction was responsible for the fatal issue. In the rest death ensued from exhaustion consequent upon vomiting and diarrhea. **Vegetable tumors** are much less common than the preceding; they usually consist of fruit-skins, fruit-stones and stalks or of the fibrous roots of certain medicinal plants. The tumor seldom attains the size of a hair-ball. **Gastroliths** are met with in men about middle age who drink varnish, polish or other resinous fluid containing alcohol. It is advisable in every case of obstinate dyspepsia in a girl to make inquiries concerning her habits and occupation. Furthermore, whenever a painless tumor in connection with the stomach or intestine is found in a young adult, the physician should bear in mind the possible existence of a concretion. In the majority of the recorded cases the concretion was mistaken for a malignant growth. If the tumor is small in size, it may be possible to secure its removal by an emetic. In the case of large tumors gastrotomy offers the greatest relief. [J. M. S.]

3.—Rankin divides **dyspepsia** into the acute and chronic forms. The chronic form he again divides into the atonic, the acid and the nervous varieties. In the treatment of all forms of dyspepsia the cause should be determined first if possible. Improper food, insufficient exercise, mental worry, irregularity of the bowels or some other violation of the fundamental laws of health should be remedied before any good can be expected from drug treatment. The diet should be regulated, attention should be paid to general hygiene; the mouth should be carefully inspected and any abnormality in the condition of the teeth corrected; in very long-standing cases the stomach should be washed out every morning for a few days; and constipation should be corrected. The author is an advocate of the **antiseptic treatment** of the condition and he uses **carbolic acid**, which he considers to be the most reliable antiseptic. In atonic dyspepsia he gives pure carbolic acid in combination with dilute hydrochloric acid, strychnine and ginger. After the prominent symptoms have disappeared he gives tonic mixtures of quinine and iron which he combines with strychnine and carbolic acid. In case quinine and iron disagree he uses papain in doses of 2 or 4 grains in preference to pepsin. In acid dyspepsia he gives carbolic acid in combination with bismuth subcarbonate, salol or sodium sulphocarbolate. Strychnine, ginger or ammonia and morphine may also be incorporated with the above mentioned drugs. When the acidity persists in spite of this treatment temporary relief may be obtained by sipping a wine-glassful of very hot water in which 20 or 40 grains of sodium bicarbonate have been dissolved. If the diet contains large proportions of farinaceous substances, 2 or 3 ounces of malt infusion should be taken with each meal. When the urgent symptoms are relieved, suitable tonics combined with carbolic acid should be given. In nervous dyspepsia the quantity and variety of food should be increased as rapidly as possible, especially there should be an increase in the amount of fat taken and assimilated. In the line of drugs, zinc valerianate and arsenic combined with carbolic acid have given the author the best results. When sleep is much broken at night, and especially if gastralgic attacks are the cause of disturbed rest, relief will be afforded by the use of 30 grains of sodium bromide combined with 15 grains of antipyrine on going to bed. [J. M. S.]

4.—Jones reports 4 cases of **perforating gastric ulcer**. The first patient was a girl, aged 19 years, who had been in good health up until 2 weeks before her operation, when she first complained of epigastric pain. Three hours after the onset of the symptoms of perforation the abdomen was

opened and a small perforation found; this was situated on the anterior surface of the stomach at the pyloric end, and a little below the lesser curvature. The opening was closed with Lembert sutures. Some liquid food had escaped from the stomach, but there were no evidences of peritonitis. Uneventful recovery ensued. The second patient, a woman, aged 21 years, was operated upon 13 hours after the sudden onset of violent abdominal pain with vomiting. The perforation, large enough to admit a small finger, was found up under the liver, midway between the cardiac and pyloric ends of the stomach and emptied into a cavity formed by the matting together of the liver, colon and stomach; it was occluded with a purse-string suture fortified by Lembert sutures. The patient died on the fourteenth day, a subphrenic abscess on the left side having developed. The perforation had completely healed. The third patient, a man, had suffered from indigestion for 2 years, and was operated upon 14 hours after the onset of perforative symptoms. The opening was found 3 inches from the pylorus, near the lesser curvature. Recovery followed suture by the Lembert method. The last patient, a woman, aged 30 years, was operated upon 8 hours after a perforation, which was found on the anterior surface of the stomach. The opening was closed with a purse-string suture and covered by an omental graft. An uninterrupted convalescence followed. Jones advises in all cases to scrape the edges of the ulcer, and to use a purse-string suture as a preliminary measure. This may be done in a few seconds and prevents extravasation, while the occlusion is finished with Lembert sutures. He is also convinced that dry wiping should supersede irrigation, which only serves to dilute, disseminate and make more soluble the toxic material. The lesser peritoneal cavity may easily be infected by irrigation of the greater. No patient with perforation should be removed from the house in which the accident has occurred because of the increased danger from extravasation owing to the necessary movements.

[F. T. S.]

5.—Parker has operated upon 5 cases of chronic gastric ulceration for sudden perforation with one death; 4 cases of chronic ulceration for slow perforation with 2 deaths, and he has performed pyloroplasty in 7 cases of chronic gastric ulceration with one death. In 2 of the fatal cases autopsy revealed leakage from defective suturing. In one case of slow perforation the stomach presented an hour-glass contraction, and in 2 others cancer was strongly simulated. [F. T. S.]

LANCET.

November 29, 1902.

1. The Croonian Lectures on the Natural History and Pathology of Pneumonia. (Lecture III.)

J. W. WASHBOURN.

2. Four Lectures on the Nature, Causes and Treatment of Cardiac Pain. (Lecture IV.)

ALEXANDER MORISON.

3. Hysterectomy for Uterine Fibroid Disease in Early Pregnancy. ALBAN H. G. DORAN.

4. A Case of Fulminating Appendicitis with General Septic Peritonitis; Operation, Recovery.

J. HOWELL EVANS.

5. The Low Phosphates and Urea in the Urine of the Tuberculous. A. W. GILCHRIST.

2.—Will be treated editorially.

3.—Doran records 3 interesting cases of hysterectomy during early pregnancy, in each of which there was a fibroid tumor in the lower segment of the uterus posteriorly, preventing normal labor or delivery into the vagina by any means. In all, immediate removal of the uterus seemed to be the best course to pursue in the interests of the patient. Myomectomy would have been impracticable. Pushing up the fibroid is a dangerous practice. One can never be absolutely certain that the pelvic tumor is a

fibroid. Even if there be myomata in the uterus above the pelvis, it must not be forgotten that a hard ovarian tumor may develop and block the pelvis. A tense ovarian cyst pressed down in the pelvis by a gravid uterus may feel very hard, and the danger of pressing on a cyst is evident. Abdominal section is indicated in all such cases.

[W. A. N. D.]

5.—Gilchrist shows that in phthisis the volume, solid residue, chlorine, urea, uric acid and phosphoric acid are increased, while the total acidity and urobilin are below the normal. [F. J. K.]

MEDICAL RECORD.

December 13, 1902.

1. The Röntgen Ray and Ultraviolet Light in the Treatment of Malignant Diseases of the Uterus, with Report of an Inoperable Case.

MARGARET A. CLEAVES.

2. Pulmonary Syphilis Simulating Pulmonary Tuberculosis. HENRY W. BERG.

3. Three Phases of Pancreatic Disease, with Report of Cases. JOHN H. BLODGETT.

4. The Neuron Theory: Its Relation to Physical and Psychical Methods of Treatment. A. D. ROCKWELL.

5. Syphilis in the Barber Shop: A Case of Infection Through an Accidental Razor Wound.

ANTONIO FANONI.

1.—Cleaves presents a summary of the results of treatment of malignant diseases of the uterus by the Röntgen rays and ultra-violet light, and reports the result of this treatment in an inoperable case. The patient presented involvement of the cervix uteri, infiltration of the anterior and posterior vaginal walls, also of the broad ligaments. During the 5 months in which the patient has been under treatment 110 applications have been made. The technique of the method used is fully set forth. The patient's general condition has improved markedly and there has been an apparent arrest of the cancerous growth and a marked lessening of the infiltration. [T. L. C.]

2.—Berg reports a case of pulmonary syphilis simulating pulmonary tuberculosis. He states that the cases which he has seen in which syphilis of the lung was suspected and the cases of which he has read were of the following type: (1) Those resembling pulmonary phthisis of the tuberculous type; (2) those resembling subacute or chronic pneumonia of the ordinary type; (3) cases of pulmonary gummata, combined with the formation of more or less extensive fibrous bands and adhesions; (4) cases in which, in combination with extensive syphilis of other organs, particularly of the liver and the bronchial glands, the lungs become the seat of one or more abscess cavities, due to the breaking down of such syphilitic bronchial glands, pulmonary gummata and gummata of adjoining organs. [T. L. C.]

3.—Blodgett reports 3 cases of pancreatic disease, with autopsy findings. In his first patient the pancreas became involved by extension from carcinoma of the stomach. In his second patient the pancreatic disease was part of a general process. The post mortem examination showed the involvement of all the abdominal organs except the stomach and the intestines; the liver was the seat of passive congestion and diffuse hepatitis. It also showed a degeneration which was believed to be hyaline or amyloid. The spleen presented evidences of inflammation and the same degeneration as the liver. A similar degeneration affected the kidneys, which were the seat of marked interstitial nephritis and circumscribed areas of round cell infiltration. The pancreas was so far degenerated as not to allow section for satisfactory examination. The gross anatomy was identical with that of other organs. Blodgett's third patient was an alcoholic, who suffered from chronic pancreatitis and died from toxemia. The diagnosis had been made of cirrhosis of the liver, but

there was not a drop of fluid in the abdomen or legs. At post mortem the liver was found to be but slightly involved; the head of the pancreas was very hard and was largely infiltrated with white fibrous tissue, the bile-duct, as well as the pancreatic duct, was constricted at this point, the gall-bladder was dilated and filled with bile; the pancreas cut with difficulty; no microscopical examination was made. [T. L. C.]

MEDICAL NEWS.

December 13, 1902. (Vol. 81, No. 24.)

1. Malignant Disease Involving the Gall-Bladder.
WILLIAM J. MAYO.
2. Surgical Versus Medical Treatment of Cholelithiasis.
JOHN B. DEEVER.
3. Report of the Care of the Sick Poor of the State of New York; with Suggestions for the Establishment of Convalescent Homes, etc. S. A. KNOFF.
4. Credé's Intravenous Injections of Silver (Collargol) in Ulcerative Endocarditis. MORRIS MANGES.
5. Remarks on One of the Complications of Anesthesia (Asphyxia). THOMAS L. BENNETT.
6. A New Compact Portable Operating Table.

HOWARD LILIENTHAL.

1.—Mayo states that gall-stones are almost constantly present in primary malignant disease of the gall-bladder and rarely in secondary, and that the relative proportion of gall-stone and malignant disease of the gall-bladder in women and men is practically identical. The pathological lesions found are best explained on this theory: The similarity in age frequency. The author believes that gall-stones are the most important etiological factors in malignant disease of the gall-bladder; he advises early operation, other things being equal, on active gall-stones, as nearly all the mortality-giving complications are the result of delay. Out of 250 uncomplicated gall-stone operations, the mortality was less than one per cent. Primary cancer, as a rule, gives a hard tumor in the region of the gall-bladder, which is tender to touch, and, unless there is a peritoneal involvement, rigidity of the overlying muscle is not marked. It has been stated that at least 1/2 of the cases of jaundice diagnosed as due to gall-stones are caused by cancer or complicated with it.

[T. M. T.]

2.—Deaver, in his article on the surgical versus medical treatment of cholelithiasis, mentions the use of olive oil as an aid to the passage of gall-stones, and says that, while in the test-tubes it does not cause a loss of weight in the stones, yet there is not the slightest evidence that the oil can reach the cystic duct or the gall-bladder. It is said that the oil's action is upon the mucous membrane, favoring an increased secretion; but, if we accept the view that the expulsion of the stone is due to the efforts of the diseased bile-passage to get rid of an offending body, where does this efficiency lie? [T. M. T.]

3.—Knopf, in his article, mentions that a committee has undertaken work as follows: (1) Research into the social, as distinct from the medical, aspect of tuberculosis. For example, into the relations between the disease and overcrowding, infected tenements and unhealthy occupations, and also the influence upon recovery, of improved diet and hygienic living. (2) Education. The publication of leaflets and pamphlets, the giving of lectures and the promulgation in every possible way of the fact that tuberculosis is a communicable and preventable disease; the widest distribution of the results of scientific research in this field, and the results of modern treatment both in sanatoria and at home. (3) The encouragement of movements for suitable public and private sanatoria, both for advanced and incipient cases; for adults and for children; for free care and also for those who can pay moderate fees. (4) The relief of indigent consumptives by the provision of food and suitable medicines, by the payment of rent when

this is necessary to secure adequate light and air, and by transportation and maintenance, when, in the judgment of the committee, this is essential. [T. M. T.]

4.—Manges, from his experience, believes that ointment of silver is a powerful agent in general sepsis. To individualize and definitely to state in just what patients and in what class of patients success may be expected is, however, impossible. In septic endocarditis, the injections of one per cent. solution of collargol has been used with very favorable results. The injections, as a rule, are comparatively painless, except when the cannula accidentally misses the vein. This accident is often unavoidable, since the veins are not always readily found. There are generally moderate chills which frequently occur 3 to 6 hours after injection. There are no other unpleasant after-effects. [T. M. T.]

5.—Bennett briefly states that the general principles to be observed in the treatment of asphyxia complicating anesthesia is as follows: The obstructed respiration should be obtained by maintaining an open air-way, by avoidance of conditions preventing free respiratory movements, by the selection of the proper anesthetic and by its administration in such a way as not to limit the supply of oxygen or increase the percentage of carbon dioxide to the extent of producing signs of asphyxia. Anesthesia by nitrous oxide alone or mixed with air or with oxygen is the form of anesthesia most frequently complicated by asphyxia. This is the chief risk of the administration, and the patient should not be exposed by this risk, but should have some other anesthetic. Anesthesia by ether stands next in this respect, but there are very few persons who cannot be satisfactorily anesthetized with ether given with a sufficient admixture of air. There are some patients, however, who will suffer from the deprivation of oxygen resulting rather from the high percentage of ether vapor than it is necessary to mix with air in order to produce anesthesia, and these patients should have ether only when mixed with air containing an increase percentage of oxygen; otherwise they should have chloroform in some form. [T. M. T.]

NEW YORK MEDICAL JOURNAL.

December 13, 1902.

1. The Past, Present and Future of the New York Academy of Medicine. ANDREW H. SMITH.
2. Laryngectomy for Malignant Disease.
FRANK HARTLEY.
3. The Present Status of Genito-urinary Therapeutics.
EUGENE FULLER.
4. The Treatment of Extensive Rectal Strictures.
EMIL RIES.

2.—To be abstracted when concluded.

3.—Fuller contributes a paper on genito-urinary therapeutics, and mentions the following points for consideration: (1) The elimination of the gonococcus; (2) the dissipation of the general infection from the genito-urinary tract; (3) the sterilization of the tract in connection with operation, and (4) the limits which should be placed on the administration of anodynes. As regards the elimination of the gonococcus, therapeutic results have been disappointing, due to the fact of the gonococcus burying itself within the epithelial layers of the urethra, in this way freeing itself from the influence of drugs administered by the mouth or by irrigation. As regards the elimination of general infection, several factors must be borne in mind. All urethral obstructions must be removed and free drainage secured. Diuretic drugs should be administered freely, vesical and urethral lavage be employed, the administration of drugs by the mouth deleterious to germ proliferation should be used, with attention to the patient's general condition. He then mentions the drugs most frequently employed for the above purposes. Sterilization of the urinary tract just previous to operation he does not em-

ploy, although being an advocate of antiseptics. He does, however, at the time of operation, after opening into the bladder, irrigate its interior, but does not employ any method of sterilization prior to this time. Anodynes, he says, are not to be prescribed in operative cases. He refers particularly to opium and its derivatives. These should not be employed either before or after operation, on account of their action on the kidneys, checking diuresis and thus predisposing the postoperative uremia. [P. B. B.]

4.—Reis says strictures of the rectum are troublesome by producing constipation and purulent discharge. They undermine the general health by toxemia, by sepsis produced by the associated ulcerations, abscesses, sinuses and fistulae, and they endanger life by termination in intestinal obstruction or by perforation into the peritoneal cavity. There are 3 conditions which make the treatment of rectal strictures dangerous, and these result (1) from the septic condition of the field of operation, (2) the changed anatomical relation of the parts and (3) from the menace of recurrence. Recurrences take place with a disappointing frequency and are usually due to a portion of ulcerated or indurated bowel left behind. He then describes an operation for stricture of the bowel high up, which he calls *sigmoideoproctostomy*, the technique of which is given. [P. B. B.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

December 11, 1902. (Vol. CXLVII, No. 24.)

1. Infantile Paralysis; An Epidemic of Thirty-eight Cases. CHARLES F. PAINTER.
2. Congenital Anomalies of the Phalanges, with Report of Cases Studied by Skiagraphy. F. B. LUND.
3. Leukoplakia. FREDERICK C. COBB.
4. A Case of Suture of Divided Ureter. Recovery Without Leakage. HUGH CABOT.

1.—Painter's statistics show that out of 38 cases of infantile paralysis there were 29 males and 9 females. The youngest was 13 months, and the oldest 10 years; 21 patients were 3 years or younger; 8 patients, 2 years or younger, and 7 patients 4 years or older. No patients observed got entirely well and only one died, though this one was not included in the 38. [T. M. T.]

2.—To be abstracted when concluded.

3.—Cobb believes that a great many of these cases are due to excessive smoking with a previous history of syphilis. Out of 12 cases studied, 8 were male smokers. In 4 the lesion was on the tongue; in 4 on the cheeks, and in one on the lips, while the location was not stated in one. Four out of the 10 developed carcinoma, and one could not be traced. The patients developing carcinoma had leukoplakia, one for 23 years; 2 for 5 years, and in one the duration of the lesion could not be ascertained. All the fatal cases denied syphilis and admitted being smokers. [T. M. T.]

4.—Cabot states nephrectomy is unjustifiable excepting in cases in which such a large proportion of the ureter is removed as to make uretero-ureteral anastomosis impossible. The author mentions 4 methods for uretero-ureteral anastomosis: (1) The transverse end-to-end; (2) the transverse end-in-end, with or without splitting of one or the other portions; (3) the end-in-side; (4) the oblique end-to-end. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 13, 1902.

1. A Review of Current Pediatric Literature. Chairman's Address, Delivered before the Section on Diseases of Children, at the Fifty-third Annual Meeting of the American Association. H. M. McCLANAHAN.
2. A Critical Review of 416 Cases of Appendicitis. Operated on in the German Hospital, Philadelphia, in 1901. JOHN B. DEEVER and G. G. ROSS.

3. Appendicitis. A Brief Report of the Author's Nine Fatal Cases, with Comments. PARKER SYMS.
4. Anomalies of Appendicitis. ERNEST LAPLACE.
5. Alcoholic Epilepsy. T. D. CROTHERS.
6. The Pathology of Chromidrosis. M. L. HEIDINGSFELD.
7. The Blood in Filariasis. W. J. CLAVERT.

1.—See Philadelphia Medical Journal, June 21, 1902, page 1110.

2.—See Philadelphia Medical Journal, June 21, 1902, page 1102.

3.—See Philadelphia Medical Journal, June 21, 1902, page 1102.

4.—See Philadelphia Medical Journal, June 21, 1902, page 1102.

5.—See Philadelphia Medical Journal, June 21, 1902, page 1118.

6.—Heidingsfeld contributes an article on the pathology of chromidrosis. Regarding this condition he recapitulates as follows: Chromidrosis is not, as its name implies, an anomaly of sudoriferous secretion. Judging from the number of cases reported and as a matter of common observation, it is a rare affection as regards forms characterized by yellow and brown and probably black, blue, green and intermediate shades of discoloration. A frequent type is red chromidrosis, which is due to some form of erythro micrococcus tetragenus infection, and which yields to antiparasitic remedies. The pigment eliminated, in the yellowish-brown forms, at least, is soluble in water, alcohol, ether, etc., is readily soluble in chloroform, stains linen indelibly, shows no reaction when treated with ordinary reagents, and is amorphous, homogenous and resinous in character. From a histological viewpoint, he states the sudoriferous glands of the affected area are normal. sebaceous glands are absent; a hyperkeratosis around the openings of the hair follicles and pigmented accumulations near the hair follicles in the stratum corneum, lower layers of the rete and the adjacent cutis are present. The pigment is grouped in cell-like masses, is not finely granular and does not bleach with hydrogen dioxide like chromophores. The pigment is not a derivative of oxyhemoglobin. From the pathological findings, the absence of the sebaceous glands, the normal condition of the sudoriferous glands, cases of chromidrosis (excluding red forms) are anomalies of pigmentation and not of glandular secretion. [F. J. K.]

7.—Calvert writes on the blood in filariasis. He has carefully studied the leukocytic changes in filaria and finds that eosinophilia is present and shows a marked periodicity, and that these cells show a positive chemotaxis for the filarial parasites, so that, when the embryos are crowded into the capillaries, a local positive chemotaxis for eosinophiles gradually attracts these cells from the general circulation, and the entrance of the embryos into the peripheral circulation removes the positive chemotaxis and allows the eosinophiles to re-enter the general circulation. The eosinophile movements occur some hours later than those of the embryos. From our present knowledge it may be stated, therefore, that during the early stages of filariasis a leukocytosis and eosinophilia are present; that the leukocytosis and eosinophilia are cyclic, following by a few hours the periodicity of the embryos in the peripheral circulation, and that, as the disease progresses, the leukocytosis and eosinophilia gradually decrease to normal. The duration of the eosinophilia and leukocytosis has not yet been determined. [F. J. K.]

AMERICAN MEDICINE.

December 13, 1902.

1. Causes of Epilepsy in the Young. A. JACOBI.
2. Intestinal Obstruction: Fecal Fistula, Persistent Pain. Cured by Secondary Operation and End-to-End Anastomosis. HERMAN GRAD.
3. The Treatment of Epithelioma of the Eyelids by the X-rays. WILLIAM M. SWEET.

4. Some Neglected Points in the Physiology of Vision.
GEORGE M. GOULD.
5. Accessory Thyroid Tumor Situated at the Base of the
Tongue. RANDOLPH WINSLOW.
6. Dr. Bridge on the Management of the Tuberculous Lung.
T. B. MOORE.

1.—Jacobi discusses the causes of epilepsy in the young. This disease appears to be more directly inherited than any other cerebral disorder. The actual or the proximate cause of general epilepsy is in the cerebral cortex, its origin in anatomical lesions of different localities. It may result from a persistently abnormal circulation or may be of reflex nature. All sorts of cerebral tumors, solid or cystic, may produce it as well as the results of previous encephalitis and meningitis, from otitis, nasal infection; dissemination sclerosis of different territories; vasculitis of the pia mater; the results of hematoma or thrombosis; arrests of cerebral development or heterotopy of gray substance; premature ossification of one, some or all of the cranial sutures and fontanelles; even the narrowness of the occipital foramen; cerebral exhaustion from masturbation or premature venery, or local anemia of known or unknown origin; diseases of the heart with secondary venous obstruction; congestion from other causes (in a case of Gerhard's enlargement of the thyroid); the influence of prolonged use of alcohol or ergot; the sluggish brain circulation attending constipation and the general toxemia of intestinal auto-infection; external irritations, such as peripheral tumors, cicatrices, foreign bodies and the reflex excitement produced by various carious teeth, Schneiderian hypertrophy, and nasal and nasopharyngeal growths; vesical and renal calculi; helminthes, from tenia to oxyuris; in older girls delayed menstruation, are so many different causes of epilepsy. It is, therefore, only the most painstaking examination of all the organs and the whole surface of the body which gives a promise of finding the cause of the disease as well as the indications for rational causal treatment. [T. L. C.]

3.—Sweet presents a report of 3 cases of epithelioma of the eyelids treated by the X-rays. Marked improvement followed in each case. [T. L. C.]

4.—Gould discusses the physiology of vision in which he describes the functions of various parts of the eye in conserving vision and draws from these physiological facts practical points to be observed in assisting nature to this end. [T. L. C.]

5.—Winslow reports a case of accessory thyroid tumor situated at the base of the tongue. The growth was removed with some difficulty through an incision in the median line from the chin to the hyoid bone. The mylohyoid muscle was cut and the geniohyoid and the geniohyoglossus muscles of each side pushed apart by blunt dissection until the base of the tumor was reached. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

October 9, 1902.

1. Investigations Concerning Albumin Precipitins.
L. MICHAELIS.
2. Hemolytic Bloodplasma. ASCOLI.
3. Concerning the Demonstration of Lactic Acid in Gastric Juice. BOENNIGER.
4. A Case of Marked Cystic Dilatation of the Choledochus Duct. M. J. ROSTOWZEW.
5. Gangrene of the Skin following Subcutaneous Infusion.
E. WORMSER.
6. A Contribution Concerning Pentoses. F. KALISKI.

1.—Michaelis reports some very interesting observations. He precipitated out the calcium salts from a lactoserum and from milk. He then tested the precipitating action of this serum, and found that precipitation occurred quite as well as when calcium salts were present. The precipitate is soluble in diluted acids and alkalis; it precipitates again upon neutralization. Precipitin is not altered by heating

for 2 hours at 52°C; but 68°C for 2 hours destroys it. The author always found precipitin in the ammonium-sulphate precipitate that contained the globulins, and, practically, entirely in the fraction that was precipitated below 0.3 saturation. He found, also, that, not only the substance causing the precipitation, but the one that is precipitated, shows the characteristics of a globulin. He investigated the result of the injection into animals of pure serum-albumin; he found that he obtained a serum that precipitated not only albumin, but also globulin. He investigated the effect of peptic digestion upon the precipitin and the substance precipitated, and found that digestion for an hour causes the precipitin to disappear entirely. It is possible that it becomes a precipitoid, but this is extremely difficult to determine. Attempts to determine whether this is the case or not were unsatisfactory. All the products of peptic digestion show themselves to be refractory to the precipitins, even when a considerable amount of coagulable albumin is still present. The author then injected animals for about 6 weeks with egg-peptone, and found that no precipitin for egg-albumen was produced in this way. He was also never able to produce a precipitin for peptone. He believes that the reason that milk is coagulated in the stomach is to prevent casein, which is a foreign body in the human circulation, from passing the gastro-intestinal wall in solution. Digestion of it robs it of the power of causing the production of antibodies. [D. L. E.]

2.—Ascoli discusses the question as to whether the complement is found in the serum or in the cells, and gives a critical discussion of the previous work upon this question. He also carried out some work of his own, taking the blood of dogs that had been injected with rabbits' blood, centrifugating at a very low temperature, and then injecting small quantities of the serum directly into the circulation of rabbits. As a result of this, he obtained hemoglobinuria and sometimes albuminuria. He decides that a hemolytic substance was present in the plasma, and that it was practically impossible for it to have come from the leukocytes. He believes, also, that osmotic factors could not have been of any importance in producing the hemoglobinuria in his cases. [D. L. E.]

3.—Bönniger decides from his work that a distinct iron-chloride reaction with a test-breakfast denotes lactic acid fermentation. A strong reaction in the stomach-contents after fasting over night (in cases of motor insufficiency) also indicates lactic acid fermentation. The test-dinner cannot be used to demonstrate the presence of lactic acid fermentation. If the motility is great and there is a suspicion of lactic acid fermentation, the author advises the use of Boas's oatmeal-soup and its extraction after 2 or 4½ hours. [D. L. E.]

4.—The case reported is that of a girl, 13 years of age, who was admitted with a very indefinite history, but with the statement that for a long time she had had a large abdomen. The enlargement was in the region of the liver, she had icterus, and there was pain in the liver region. She showed general weakness. Palpation showed that the large mass was apparently cystic. It showed, at times, variations in size. It was thought to be an echinococcus cyst. The girl was operated upon, the cyst was punctured with a trocar and then opened, and its wall was united with the wall of the abdomen. Two liters of fluid were emptied from the cyst. There was no evidence of echinococci. The patient died the next day. Post mortem showed, as the main facts, that the large cyst was really the enormously dilated duct. The dilatation was due to the formation of a valve-like fold of the mucous membrane above and one below, which permitted fluids to pass into the cavity, but prevented them from passing out. [D. L. E.]

5.—Wormser says that he has seen one case of gangrene of the skin after the use of Tavel's solution. He has also, however, seen a case of skin-gangrene following the use of carefully sterilized normal salt-solution. He does not believe that in these cases infection had anything to

do with the gangrene. He is inclined to believe that in some cases, at least, it is due to the accidental damage of some small nerve-branches. [D. L. E.]

6.—Kaliski finds that arabinose in doses of 0.25 gm. is entirely unassimilated by normal persons, and is passed off in the urine. Diabetics, on the contrary, showed, in 6 instances, arabinose in the urine only twice. The author used as a test for pentoses, the method recommended by Bial (abstracted previously from *Deut. med. Woch.*, Nov. 15, 1902). He considers this a valuable practical modification of the orcin test. [D. L. E.]

October 16, 1902.

1. Inoculation Metastases of Carcinoma.

OLSHAUSEN.

2. The Agglutination of Streptococci. Preliminary Communication. F. MEYER.

3. A Visimeter. U. MAYEDA.

4. Painful Feet. A. SCHANZ.

5. The Influence of Lecithin upon the Retention of Albumin. C. MASSACIU.

6. A Case of Extreme Cystic Dilatation of the Choledochous Duct. M. J. ROSTOWZEW.

1.—The author first refers to a patient with inoperable carcinoma of the ovaries, which was operated upon, the patient dying two weeks later, of embolism. The autopsy showed many hundreds of metastases, which were not present at the time of the operation. Another case, reported in detail, was one of papillary cyst of the ovary, which had been operated upon in 1881. The woman had remained well until 6 months before this report, when a tumor developed in the abdominal wall. It was extirpated successfully, and proved to be an inoculation metastasis from the earlier operation. It was undoubtedly a malignant tumor, and contained much calcareous material and numerous psammoma bodies. The author has himself previously described similar cases, and he refers, also, to some cases reported by other observers. [D. L. E.]

2.—In some studies of the streptococcus of rheumatism, Meyer noticed agglutination. He, therefore, investigated the specificity of agglutination with different streptococci, —those from scarlatinal angina, simple follicular angina, angina with rheumatism, pleurisy, joint exudates, erysipelas and other sources. He has also investigated the effect of the serums of Marmorek, Tavel, Aronson and Meyer. So far as the work has been carried, the streptococci seem to have been agglutinated only by the specific serum obtained from the same variety of streptococcus. The author found that the results were all the more striking the more the serum was diluted. As a general result of his work, he decides that streptococci are agglutinated with corresponding immune serums, just as are other bacteria. By means of this phenomenon, he says, it is possible to make absolute distinctions between the streptococci of angina and those of pyogenic infection. There are only gradual changes in the streptococci of various kinds that do not produce pus; as, for instance, those of scarlet fever, simple angina and rheumatism. Bactericidal serums that are to be used in human therapy should not be made from bacteria that have been made more virulent by passing them through animals, as has previously been the case. [D. L. E.]

4.—Schanz insists upon the importance of flat-foot in causing pain in the feet. Persistently painful feet, especially the cases that are commonly called chronic rheumatism, will usually be found to be due to flat-foot. The author treats the condition by taking a piece of celluloid plate, 3 to 3½ mm. thick, warming it in water and fitting it to the foot. This is worn inside the shoe. He considers that this makes the most satisfactory plate that can be used.

[D. L. E.]

5.—A number of recent reports concerning the effect of lecithin upon metabolism are referred to. In general they tend to show that lecithin causes a retention of nitrogen,

as well as of phosphoric acid, the latter being thought to be an evidence of increased bony growth. Massaciu has carried out a series of studies of metabolism, including the determination of the nitrogen and phosphorus metabolism, and of uric-acid excretion; he decides that lecithin is capable, even in adults, of causing an albumin retention, when the amounts of albumin used per day are not so great as to be, of themselves, sufficient to cause such retention, and when other conditions (such as convalescence), tending to cause albumin retention, are absent. He believes, however, that it was not an albumin retention in an entirely normal organism in his case, as the patient had shown a tendency to retain albumin before the lecithin period of investigation; probably as the result of a latent tuberculosis. [D. L. E.]

6.—Rostowzew considers that there is no doubt that the dilatation of the common duct in his case was due to the folding of the wall of the duct, thus producing valves. A few similar cases have been reported, and one was practically identical with this. Microscopical examination of the cyst-wall showed an entire absence of the normal constituents of the bile-passages and a transformation into a connective-tissue sac. The effect of the accumulation of fluid from along the duct between the valves would, of course, be to cause a constant increase in the pressure; and the condition would constantly grow worse; though, undoubtedly, from the history, there was an occasional escape of fluid from the sac. The cause of death was complicated. The child had become very much weakened by her long ill-health; she had renal disease; and, undoubtedly, the narcosis during the operation itself contributed largely to the immediate result. The diagnosis of this condition would certainly be extremely difficult, and probably definitely determinable only by operation. Even then it must be extremely difficult, because the nature of the tumor in this case could not be positively stated until after a careful dissection. The course of the disease is, without doubt, always chronic. The cases so far reported have been in persons from 12 to 24 years of age. It is possible that the condition is due to a congenital anomaly. The treatment of such conditions must be purely operative, and the prognosis is always extremely grave. It is of interest to note that the condition has, so far, been observed only in females. [D. L. E.]

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

October 14, 1902. (No. 41.)

1. A Retrospect of 720 Laparotomies for Gall-Stones, with Especial Consideration of 90 Cases of Drainage of the Hepatic Duct. H. KEHR.

2. An Endemic of Paratyphoid Fever.

G. de FEYIER and H. KAYSER.

3. Pulmonary Edema and Fibrinous Bronchitis After Thoracentesis. F. MAGENAU.

4. The Cause, Symptoms and Treatment of Insufficiency of the Non-Pregnant Uterus. A. THEILHABER.

5. Extension. F. KUHN.

6. The Operative Replacement of the Paralyzed Quadriceps Femoris. MAGNUS.

7. The Recognition of Simulation in Hysterical and Accident Cases. Remarks Upon the Article of Hofrat Dr. R. von Hoesslin in No. 37 of This Weekly.

O. NIEDNER.

8. The Treatment and Pathogenesis of Stenocardia and Related Conditions. R. BREUER.

1.—Kehr reports the results of 720 laparotomies performed for the purpose of removing gall-stones. His first operation was performed May 1, 1890. Since then he has performed 732 operations, of which 2 are still under observation. He believes that the pathological anatomy of cholelithiasis is the foundation upon which the scientific knowledge of the subject is based. As a result of his own experience he believes that gall stones rarely cause pain,

but that it is the inflammation to which they give rise that is the cause of biliary colic. In about 80% to 90% of cases of gall-stones jaundice is absent. Even when the stones are in the ductus choledochus and the ductus hepaticus, jaundice is absent in about 23% of the cases. Even enlargement of the liver, which has been considered one of the chief symptoms, is rare, if the stones are only found in the gall-bladder and the cystic duct. The enlargement of the gall-bladder in the form of a tumor disappears as soon as the chronic stage of the disease is reached. The formation of fistula by which the gall-stones escape spontaneously into the intestinal tract appears to be of but little benefit to the individual. In some cases an ascending cholangitis is due directly to it. Cure is probably impossible by ordinary internal medication. At most the condition can only be brought to a latent stage. A special diagnosis of the exact condition is often possible. It involves consideration of the history, careful observation of the patient, and a carefully accomplished bimanual investigation. Sometimes, however, only the most important feature of the case can be recognized. Operation is advisable in various conditions, especially when there is chronic occlusion of the ductus choledochus. On the other hand, in many cases the patient does better on expectant treatment. In cases of acute purulent cholecystitis, operation is probably less dangerous than expectancy. He then makes the following suggestions, which he believes will reconcile the opposing views of surgeons and physicians regarding gall-stone disease. In many cases of cholelithiasis rest, alkalis, etc., produce a latent stage; under these circumstances it is not wise to dislocate the stones but rather to allow them to remain quietly in the gall-bladder. If the attacks are light and latency occurs in the intervals, an operation is not to be recommended. Acute occlusion of the choledochus should usually be treated with internal medication. If symptoms of cholangitis appear, then an operation should be performed. If gall-stone colic is frequent and the patient's general condition is impaired, an operation is generally required. If there is jaundice and then the stone is passed, internal medication is probably best. When there is serous effusion or empyema of the gall-bladder and symptoms of pericholecystitis with suppuration, operation should be performed. In chronic occlusion of the choledochus, if Carlsbad treatment is inefficient, surgical intervention should not be too long delayed. Patients who have become habituated to morphine should be operated upon at once. Carcinoma of the gall-bladder can only be benefited by a very early operation. Patients with chronic icterus who suffer from stone in the choledochus or incurable disease of the liver should be operated upon in less than 3 months after its beginning. The cause of the condition is often chronic interstitial pancreatitis. In the absence of distinct physical signs, but in the presence of a condition that has not yielded to internal medication, operation should be performed, and often adhesions of traumatic origin are found, without stones. The sequelæ of cholelithiasis often require surgical intervention. General indications for operation cannot be given. Poor people should be subjected to operation more frequently than the rich, because they are not capable of accomplishing the expensive cures, such as sojourns at Carlsbad, that sometimes render an operation unnecessary. Patients suffering from complications such as diabetes, arteriosclerosis, etc., should not be operated upon unless the indications are imperative. [J. S.]

2.—De Feyfer and Kayser report an interesting endemic of paratyphoid occurring in Eibergen, Holland, the nature of which was proven by careful clinical studies. They mention 4 instances in which several members of the same household were infected, involving altogether 14 persons. In one instance there was evidence of mixed infection from the typhoid and paratyphoid bacilli. The cause of the endemic could not be positively determined, but apparently infection was carried either in the drinking water, in the

skimmed milk or in the butter. (The paper is still unfinished.) [J. S.]

3.—Magenau reports the case of a woman, 43 years of age, who gradually developed shortness of breath, after the birth of her ninth child. Examination showed the presence of **left-sided pleurisy** which was removed by thoracentesis, 2500 cc. of serum being obtained. In the course of the same day the patient began to cough violently and to expectorate a copious liquid sputum very similar to the exudate that had been evacuated. There was, however, no pneumothorax. In the sputum long casts were found, and some branched coagula. The coughing and expectorating continued, and numerous diplococci were found in the expectoration. The patient had some fever and developed night-sweats. She gradually recovered. The case appears to have been one of **acute edema of the lung, and acute fibrinous bronchitis, both occurring during pleural puncture**. In all the cases of this condition hitherto reported there was either some disease of the heart, or that organ had been displaced by a left-sided pleurisy. [J. S.]

4.—Theilhaber reports the case of a woman who, after the birth of her eleventh child, had enlargement and softening of the uterus at every menstruation. He believes that cases of this kind represent **insufficiency of the uterus**, and, in order to discover whether this could possibly be the case, he made a series of investigations upon the structure of the mesometrium, carrying his investigations not only through the literature, but also making microscopical studies of 61 uteri. He found that in the infantile uterus about 1/3 of the mesometrium consisted of muscle, which was thin and narrow. After puberty the muscles and vessels begin to develop very rapidly, but the maximum is not reached until about the twentieth year of life. For about 20 years the normal relation persists, the muscle representing about 2/3 of the mesometrium. During pregnancy, however, the amount of muscle increases enormously, and after parturition decreases somewhat below the normal. After each pregnancy the uterus remains a little larger than before, the enlargement being apparently due to an increase in the connective tissue. An essential change begins to appear about 2 years before the cessation of menstruation. This consists of atrophy of the muscles and hyperplasia of the connective tissue, and at the same time the vessels atrophy. This process reaches its maximum at about the age of 60 years, at which time the proportion of muscle to connective tissue is about the same as in childhood, and the vessels have about the same lumen, although their walls are thicker. The arrangement of the muscle and the connective tissue also undergoes considerable variation. In cases of hemorrhage from the uterus there are a number of conditions that may be associated with it. Among these is hyperplasia of the muscles of the uterus, often found in young girls in whom menstruation is more prolonged than normal. At first the uterus remains small; later it becomes enlarged and thickened. Among the others are degeneration of the muscle of the uterus, often associated with **fluor albus**, or fibrosis of the muscle often appearing toward the climacteric or severe acute and subacute disease of the tubes and ovaries, or myomatosis of the uterus, in which it is produced apparently by an increased arterial bloodflow and the inability of the wall of the uterus to contract in the region of the myoma; finally, if the involution contraction of the uterus is too weak. [J. S.]

5.—Kuhn describes a very ingenious apparatus for the purpose of attaching a small pulley to the foot of the bed over which the rope employed in extension can pass. By the use of several pulleys attached to this, a cord can be guided in various directions, so that the extension can be conveniently arranged for almost any form of bed. It is often useful for the purpose of raising the bottom of the bed when such a procedure is required. [J. S.]

6.—Magnus describes the method employed by Schanz for replacing the paralyzed quadriceps femoris. The

muscle and the upper portion of the patella are first exposed by a longitudinal cut, the sartorius and biceps are separated from their insertions, brought forward and attached to the tendon of the quadriceps. The leg is then fixed in a position of complete extension. He describes 3 cases operated upon by this method, in all of which the result was satisfactory. [J. S.]

7.—Niedner, in reply to von Hoesslin's article, reports the case of a man, 42 years of age, who was struck upon the left shoulder by a falling beam. The left arm became useless, and the patient claimed compensation for the injury. Subsequently no objective changes could be found in the shoulder. The patient was admitted to the hospital for observation, and the arm found very painful upon movement. There was a paradoxical contraction in the sense of von Hoesslin, and a diagnosis of simulation would have been made had not a Röntgen examination showed that the left tuberculum was split off, giving rise to a deformity in the anatomical neck of the humerus, and in addition, there were bony prominences in the capsule of the joint. The case shows that, in spite of a typical paradoxical contraction of the antagonistic muscles, a severe organic change may be present, and, therefore, it cannot be regarded as sufficient for the diagnosis of simulation. In this case simulation was probably induced by the repeated examinations of the physicians and the varying conclusions reached by them. [J. S.]

8.—Breuer continues his article upon the treatment and pathogenesis of stenocardia. He mentions the case of a woman, 56 years of age, always nervous, who had had several attacks of heart cramp, and from time to time she had attacks of severe abdominal cramp. There was obstinate constipation and occasionally the movements showed small quantities of blood. There was some sugar in the urine. Later the patient improved on belladonna, then grew very much worse and died. An autopsy was not made. He believes that the case is similar to one reported by Schnitzler, in which thrombosis of the mesenteric artery was found. He also mentions the case of a woman, 65 years of age, who had some dyspnea, a feeling of oppression at night and moderate constipation. From time to time she had severe cramp in the abdomen, particularly after the employment of laxatives. The patient was considerably improved on diuretin and the pain disappeared. The same thing was observed in the case of a man of 71 years. In conclusion, Breuer believes that arteriosclerosis and other diseases of the arteries may give rise to constant pains in the bloodvessels that radiate in the external skin. These are probably due to cramps in the bloodvessels and are more common in the small vessels with a well-developed muscularis than in the larger vessels. In cases in which the circulation is disturbed by these cramps, symptoms of ischemia arise. If the cramp involves the muscles of the heart, the symptoms of angina pectoris arise. Theobromine and related substances appear to have a beneficial effect in these conditions. [J. S.]

October 21, 1902. (No. 42.)

1. Experimental Investigations upon the Nature of Disturbances of the Circulation in the Collapse of Acute Infectious Diseases. PAESSLER and ROLLY.
2. Additional Cases of Rupture of the Uterus Cured by Operation. G. WIENER.
3. A Case of Congenital Cystic Kidney with Pararenal Symptoms in a Syphilitic Subject. H. FELS.
4. Further Remarks upon Atropine. H. GEBELE.
5. The Intestinal Action of Atropine. ARONHEIM.
6. Albuminous Bodies in Exudates and Precipitates. MORITZ.
7. Retrospect of 720 Laparotomies for Gall-Stones, with Especial Consideration of 90 Cases of Drainage of the Hepatic Duct. H. KEHR.
8. An Endemic of Paratyphoid Fever. G. DE FEYFER, and H. KAYSER.

9. Cause, Symptoms and Treatment of Insufficiency of the Nonpregnant Uterus. H. THEILHABER.

10. Wilhelm Griesinger. SEIFFER.

1.—Pässler and Rolly have performed some very interesting experiments upon the nature of collapse, particularly after the administration of large doses of diphtheria poison. They found that in the cases of vasomotor paralysis, as produced in rabbits, if the abdominal aorta was compressed and some salt solutions injected, the animals improved very rapidly. As it was impossible to obtain any satisfactory poison that acts exclusively upon the heart, they undertook the investigation of the action of diphtheria toxins. Several times the lethal dose was injected and then the animal carefully observed. For several hours no symptoms appeared, then those characteristic of vasomotor paralysis appeared, and it was found that by ligation of the abdominal aorta and the injection of salt solutions the duration of life could be considerably prolonged, that is to say, there was evidence that the diphtheria poison paralyzed the vasomotor system and not the heart, although there were certain morbid manifestations in the heart's action as a result of the influence of the poison, characterized by a tendency to become insufficient from very slight causes. The same results were observed in animals poisoned with pneumococci, excepting that asphyxia did not have the same tendency to produce early collapse. Comparing these results with those obtained by Rhomberg and Pässler, they believe that it is clearly shown that the circulatory disturbances of contagious diseases depend upon paralysis of the vasomotor system and that the heart is not directly involved in the collapse. [J. S.]

2.—Wiener reports 2 cases of rupture of the uterus, one occurring in a woman, 31 years of age, with a small pelvis, at the birth of her third child, and the other in a woman of 24, also in the third pregnancy, the child having hydrocephalus. In both there was considerable hemorrhage, and the children escaped into the abdominal cavity. In both, operation was done as quickly as possible, and the children and placenta removed, and the uteri amputated just above the cervixes. Both patients recovered, the first promptly, and without any very serious symptoms, the other only after a long rest in bed with continuous high fever. Wiener believes that the radical operation is probably, on the whole, better than expectant treatment. He thinks that it is almost as difficult to insert a tampon skilfully and effectually into the uterine cavity as it is to do the abdominal operation, and the statistics are increasingly favorable to the latter procedure. [J. S.]

3.—Fels reports the case of a man of 42, a sailor by occupation, and accustomed to very hard work. He came to the hospital complaining of severe diarrhea and vomiting. There was a moderate goiter and a tumor in the left hypochondrium. The urine contained a trace of albumin and sugar. There was a profound anemia and slight leukocytosis. A diagnosis was made of tumor of the kidney, probably malignant in character. The patient died, and at the autopsy there was found, in addition to anemia of all the organs, bilateral hydrothorax, fatty degeneration of the heart muscle, luetic degeneration of the aorta and a congenital cystic kidney on the right side, with partial defect of the left kidney. There was cystic degeneration of the capsule of this left kidney. There is a careful histological description of the right kidney given. (The paper is still unfinished). [J. S.]

4.—Gebele warns against the use of atropine in intestinal obstruction. He believes that its action upon the intestine is paralytic, not narcotic, and it is certainly no better, in cases of incarcerated hernia, than the warm bath with small doses of morphine. He reports a case observed by Lauber, of a man, 59 years of age, with symptoms of intestinal obstruction, who was given atropine until marked symptoms of atropine intoxication appeared. He improved

slightly, then grew worse, was not benefited by atropine, and died. There was found an incarcerated mesenteric hernia of the intestine. He also reports another case in which there was obstruction of the intestine and, after the fruitless employment of atropine, operation was performed which did not succeed in saving the patient. [J. S.]

5.—Aronheim takes the opposite view. He regards atropine as a valuable narcotic, and has used it with success in various forms of mechanical intestinal obstruction. Subjective improvement was always pronounced. [J. S.]

6.—Moritz calls attention to the fact that he recognized and described albuminous bodies in exudates that can be precipitated by acetic acid, in 1886. [J. S.]

7.—Kehr, in the continuation of his paper, insists that he is not too eager to operate, and that frequently he declines operation even when the patient desires it. He does not believe that we have any remedy capable of forcing the gall-stones through the ductus choledochus into the intestine, nor that there is any substance which has tendency to soften or dissolve the stones. He tabulates the results of his 720 operations. From this it appears that cystostomy performed in one operation, and simple cystectomy comprise together more than half of all the operations performed. Certain operations have apparently been abandoned, particularly fragmentation of the stones in the ductus cysticus and choledochus. Secondary cystotomies have not been necessary of late, and primary cystotomy is rarely employed excepting as a preliminary to drainage of the hepatic duct. In all acute processes he believes that cystostomy is the preferable operation. He believes that in certain cases of carcinoma of the gall-bladder operation is justified if merely for the purpose of encouraging the patient, and should not be refused with the object of improving the statistics of operation. Various complications were present. In 63 cases gastroenterostomy was required; in 25 plastic operations upon the pylorus; in 30 fistulae between the biliary system and the intestines; in 18 there was appendicitis; in 12 resection of the liver was required, and in 4 there was subphrenic abscess with empyema of the pleural cavity. In about 12% of the cases Kehr believes various gastric disturbances were associated with the gall-stones. In all his recent operations he has palpated the pancreas and found it abnormal in about 34% of all cases. He is rather skeptical regarding the value of nephropexy and hepatopexy employed in cases of hepatoptosis in cases in which it is necessary to diminish the subphrenic space. [J. S.]

8.—De Feyfer and Kayser continue their paper upon an endemic of paratyphoid fever. The characteristics of the cases were a short prodromal stage (one to 4 days), benign course, a high degree of infectiousness, a typical temperature and a pulse corresponding to the temperature. There were also preliminary symptoms of gastrointestinal disorder, occasionally vomiting and nearly always severe diarrhea. The spleen was usually slightly enlarged, the sensorium was unaffected; in about half the cases roseolae were present; the blood serum agglutinated the paratyphoid bacillus, and, in addition, bronchitis and sore throat were common complications, and slight hemorrhage from the bowels was occasionally seen. The authors give a brief review of the literature, discussing the nature of the reaction with the different bacilli found; that of the bacterium paratyphi of the type B. gave the strongest agglutination with the blood. They then discuss the nature of the infection, and, by means of description aided by a map, they show that the epidemic gradually followed the course of a stream. They excluded milk and butter as the source of infection, and believe that the stream was infected by the clothing of a woman who came to the village suffering from a condition resembling typhoid fever. [J. S.]

9.—The results of insufficiency of the uterus are menorrhagia, leukorrhoea, increase in the parenchyma of the uterus, with some hyperplasia of the mucous membrane,

although this may in some cases be normal. The pathognomonic sign is an abnormal increase in the uterine cavity. The prognosis is variable; if the cause can be removed by operation it is good; if due to disease of the adnexa the acute symptoms usually subside even in chronic conditions. In the preclimacteric state spontaneous cure usually occurs when the flow of blood to the uterus is diminished. The treatment, of course, varies with the nature of the condition. Among the drugs iron is often efficient in chlorotic states. Other forms of insufficiency may sometimes be relieved by drugs that cause contraction of the uterus. Uterine contractions, however, can best be obtained by mechanical, chemical, thermic, or electrical irritation. The mechanical consists of intra-uterine douches; the chemical, in the application of various corrosive substances, such as iodine, or chloride of zinc, etc., to the uterine cavity. Electricity may also be of value. Atmocausis, that is cauterizing with superheated steam, may also be of use. Even vaginal douches may be of benefit. Local hyperemia can be controlled with cold sitz-baths, by the administration of hydrastis Canadensis, by sacrifice, and sometimes it is necessary to treat the uterine mucous membrane locally. Reduction of the general bloodpressure is often of benefit. [J. S.]

10.—Wilhelm Griesinger was born on the 29th. of July, 1817, and died on the 26th. of October, 1902. At the age of 22 years he settled as a practising physician; one year later, however, he became assistant in the insane asylum at Württemberg, a position which he kept only 2 years. Three years later, while assisting in the medical clinic at Tübingen, he published his "Pathology and Therapy of Mental Diseases." In 1850 he was called to Egypt to organize the medical school in Cairo, where he had an opportunity of studying diseases of the tropics. In 1860 he became professor of internal medicine in Zürich, and in 1865 was called to Berlin as Professor of Psychiatry, although he insisted that he should have also a department for nervous diseases and one for general internal medicine, believing that the specialist should not limit himself solely to his speciality. In 1861 he founded the Archiv für Psychiatrie und Nervenheilkunde, in which many of his articles appeared. The enormous amount of excellent work that he performed is one of the most characteristic features of his career. [J. S.]

BERLINER KLINISCHE WOCHENSCHRIFT.

November 3, 1902. (39 Jahrgang, No. 44.)

1. Rudolf Virchow. JOHANNES ORTH.
 2. The Study of Assimilation in Chronic Tuberculosis. J. MITULESCU.
 3. The Clinical Value of Ehrlich's Dimethylamidobenzaldehyde Reaction. EUGENE von KOZICZKOWSKY.
 4. The Modern Teaching of Localization in Psychological Examination. E. STORCH.
- 2.—Will be abstracted when concluded.
- 3.—After describing the Ehrlich dimethylamidobenzaldehyde color reaction in detail, von Koziczowsky reports his results with it in 71 cases of different diseases. The reaction was constant until death in 5 cases of phthisis. It persisted for some time in one case each of fibrous pneumonia, phthisis, acute endocarditis, acute articular rheumatism and scarlet fever. As these patients improved, the reactions grew gradually, proportionally less marked. The case-histories show a distinct relation between pathological reaction and the exacerbation of the disease. He concludes that the reaction, which is seldom present, shows a distinct relation to the severe stages of the disease, and, when amelioration occurs, the reaction disappears. Several experiments on animals are described. This reaction was only found in severe cases. [M. O.]
- 4.—It should not be forgotten that memory pictures are combinations of similar cerebral symbols of muscle in-

nervation, also excited by the conception accompanying motor willpower. A physiological discussion, exceedingly technical in character, follows, showing the relation of the modern localization theories to psychological examination.

[M. O.]

November 10, 1902. (39. Jahrgang, No. 45.)

1. Meningococcic Septicemia. H. SALOMON.
2. The Romanowski Staining Method, Especially in Staining Cancer Sections. L. FEINBERG.
3. The Right and Necessity of Interrupting Pregnancy in Tuberculous Wives of Laborers. C. HAMBURGER.
4. The Study of Assimilation in Chronic Tuberculosis.

J. MITULESCU.

1.—Salomon reports the strange case of a woman of 22, who suddenly became ill with pain and swelling in the joints of her hands, elbows and feet. Chills, erythema and fever followed. As her condition looked septic, repeated cultures were made from her blood. These showed meningococci, which were also found in the cerebrospinal fluid a month later, when outspoken meningitic symptoms had developed. She recovered in 5 months. Salomon calls the condition **meningococcic septicemia**. [M. O.]

2.—Feinberg describes the use of the **Romanowski methylene blue-eosin staining method in the differentiation of the single-celled organisms which are found in cancer tissue**. These organisms have no nucleoli and, therefore, stain wholly blue; while the cancer cells, about the same size, have a nucleolus which stains as a red point in the otherwise blue cell. The technique of the method is given in full. [M. O.]

3.—Will be abstracted when concluded.

4.—Will be abstracted when concluded.

November 17, 1902. (39. Jahrgang, No. 46.)

1. Heat Applied Locally. ALFRED GROSS.
2. Pearly Disease and Human Tuberculosis.
3. Atonic Dilatation of the Esophagus.
4. The Study of Assimilation in Chronic Tuberculosis.
5. The Right and the Necessity of Inducing Abortion in Tuberculous Wives of Laborers. C. HAMBURGER.

MAX WOLFF.

MAX LEWINSON.

J. MITULESCU.

1.—Heat may be applied locally either dry or moist. Dry air locally has recently come into prominence as a mode of treatment. Hot sand is also of use. To be used in place of poultices, Gross describes an apparatus composed of tubes of tin or aluminum, on a plate of asbestos, attached to the warm water apparatus, keeping hot water circulating through the tubes. This he calls the **thermophore**. Its local therapeutic value is shown. It has been used successfully in sciatica, lumbago, spondylitis, gastric ulcer, chronic laryngitis, arthritis of the knee, etc. [M. O.]

2.—Wolff reports a case of severe **pearly disease** caused in a calf by injecting material from primary intestinal tuberculosis in a child. Professor Ostertag agrees with Wolff that there is no doubt in this case that human tuberculosis may be contracted from bovine tuberculosis, and again pearly disease given to calves from the intestinal lesions of primary human tuberculosis. [M. O.]

3.—Will be abstracted when concluded.

4.—Will be abstracted when concluded.

5.—Will be abstracted when concluded.

WIENER KLINISCHE WOCHENSCHRIFT.

October 30, 1902. (XV. Jahrgang, No. 44.)

1. Heredity. WAGNER von JAUREGG.
2. Stenocardial Pain in the Epigastrium.
3. Angiosclerosis of the Intestinal Arteries.

NORBERT ORTNER.

1.—In his opening lecture Wagner von Jauregg, the new professor of psychiatry in Vienna, reviewed the work of his predecessors. He then discussed **heredity in insanity**. Statistics show that, of 370 noninsane persons, 59% had a distinct nervous heredity; while of 370 insane patients 76.8% gave a nervous heredity. It is not necessary to have nervous diseases or insanity in the ancestors to have insanity develop in the descendants, alcoholism, syphilis, cancer, tuberculosis, gout, etc., being sufficient. A tendency or disposition to insanity alone is inherited, not any disease. Too much tobacco or meat in the father often de-

termines nervous disease in the child. Apoplexy, suicide and nervous diseases are found as often in families without as in those with insanity among the children. Of 370 well persons an heredity of insanity was found in the parents in 4.5%; of 370 insane patients, insanity occurred in the parents in 21%. Heredity in nervous disease is most marked in the rare familial diseases. This is explained by an increased predisposition to the disease, following consanguineous breeding. Insanity in relations is not of value, but is important in the parents. Besides, the fact that other diseases in the parents may predispose to insanity in the child should not be forgotten. [M. O.]

2.—After quoting in full several case-histories from the literature, Kaufmann and Pauli report in detail 8 cases of **stenocardial pain, especially affecting the epigastrium**. In one case the attacks of epigastric angina were distinctly different from those of angina pectoris. In all, there were only stenocardial attacks, pseudogastric in character. The cause of the condition was some grade of arteriosclerosis, with myocarditis, endocarditis, endarteritis or cardiac hypertrophy. The patients were usually middle-aged, and the attacks were sudden, without signs of angina pectoris, distinctly epigastric, with recovery following rapidly upon antistenocardial treatment, diuretin, potassium iodide, etc. The abdominal aorta was always tender to pressure. The pathogenesis of the condition follows.

[M. O.]

3.—Ortner reports a case of **intermittent angiosclerotic intestinal dyspragia** in a man of 55, with abdominal pain 3 hours after meals. Death followed exploratory laparotomy, from peritonitis. The autopsy showed endarteritis, myocarditis and sclerosis of the abdominal aorta, celiac, mesenteric and coronary arteries. Ortner believes that there was intermittent claudication of the intestine, due to arterial disease with spasm of the arteries. The symptoms were due to intermittent anemic dysperistalsis of the intestine. The condition may affect the extremities, brain, retina, heart, kidneys or intestine, and it may be painful, parietic or spastic. The case-history reported, he claims, is the first observed case of a dyspragia intermittens angiosclerotica intestinalis (paretica). [M. O.]

November 6, 1902. (XV. Jahrgang, No. 45.)

1. The Behavior of the Healthy Animal Peritoneum and That Changed by Experiment.
2. The Question of Immunization Against Albumin.
3. Periurethral Abscess with Chronic Gonorrheal Induration in Women.
4. Total Unilateral Oculomotor Paralysis.
5. The Extraction of a Foreign Body From the Right Lung by Direct Bronchoscopy.

HERMANN von SCHROETTER.

1.—As a result of their experiments, which are reported in detail, Clairmont and Haberer conclude that increased peristalsis accelerates **peritoneal absorption**. A single inflation of air into the abdominal cavity does not change peritoneal absorption. Urine, intestinal contents, sterile liquids, etc., injected into the abdomen, do not, as a rule, hinder absorption. This is also true when intestinal contents reach the abdominal cavity through perforation. In beginning peritonitis, peritoneal absorption is accelerated; toward the end it is retarded. After dry laparotomy absorption is retarded; after moist laparotomy it is but little changed. Different anesthetics have different effects on peritoneal absorption. With scraping off of the diaphragmatic covering of the peritoneum, absorption is greatly retarded. The transudation of the abdominal cavity is not markedly affected by laparotomy. [M. O.]

2.—Egg albumen injected or ingested in animals causes **albuminuria**, the urine containing both ovalbumin and serum albumin. This is a symptom of renal disease. Continued injections seem to produce immunity of the renal cells, as Hamburger's experiments show. For, while albumin is found in the blood in quantities which normally cause albuminuria, it does not appear in the urine. Yet other antibodies may be present which prevent precipitation of the albumin. [M. O.]

3.—Matzenauer has observed 9 cases of **periurethral abscess in women** during 6 years. Five of these, which had not

yet opened, were incised through the anterior vaginal wall. Gonococci were found in 3, streptococci in the other 2. The other 4 cases perforated spontaneously; in 3 there were gonococci with streptococci. Following the abscess chronic gonorrheal induration of the urethra commonly occurred. The literature is fully reviewed. [M. O.]

4.—Lindner reports a case of total left-sided oculomotor paralysis in a man of 42, due to aneurysm of the internal carotid artery. Death occurred in 3½ years. The autopsy report and details of the case are given. [M. O.]

5.—Hermann von Schrötter reports a case of foreign body at the lower end of the branch of the right bronchus to the lower lobe, in a woman of 35, located with the bronchoscope under local anesthesia and extracted at once. The foreign body was found to be a bit of bone and was plainly visible by direct bronchoscopy. [M. O.]

November 13, 1902. (XV. Jahrgang, No. 46.)

1. Disturbances in Health Due to Atmospheric and Technical Electricity. S. JELLINEK.
2. The Pathology of the Large Bloodvessels of the Brain. OTTO MARBURG.
3. A Congenital Membrane on the Posterior Laryngeal Wall. L. HARMER.
4. Still the Meningococcus Intracellularis. H. ALBRECHT and A. GHON.

1.—Deaths from both technical and atmospheric electricity are continually increasing in number. Many of the disturbances in health following being struck by lightning resemble the effects of technical electricity, due to the electric current. This is called the animal effect of electricity. The danger of a current depends on its strength and resistance offered it. Its effects also depend on the place of contact. Local symptoms of both conditions are similar, burning, singeing of hair, hemorrhage and separation of superficial tissue, and figures of lightning on the skin. While the point of contact, in technical electricity, is generally plain, there are cases, even of death, in which there are no changes to show the point of contact. While the first effect noted is physical, organic changes are found later. After death such changes are seen in the brain and spinal cord, macroscopically and microscopically. Care when working with electricity should be taught. The diagnosis is only possible early. The treatment is simple and symptomatic. Full details follow. [M. O.]

2.—Calcification of the internal membrane of the larger bloodvessels of the brain seems to occur frequently in old people. Marburg cites the following cases: A boy of 6½, who died of scarlet fever following rachitis, with calcification of the internal carotid artery just where the artery of the Sylvian fossa branches; that of a man of 24, dead of acute suppuration; and that of a man of 44, with syphilis, who died of gastric cancer, in the same place. The condition is widespread in some cases. Yet cartilaginous endarteritis is very rare. It is probably a purely metaplastic process, the elastic fibrous connective tissue becoming hyaline cartilage, from some unknown cause. [M. O.]

3.—Harmer describes in detail a congenital membrane on the posterior wall of the larynx, found post mortem. A full histological description of this not so very rare condition follows. [M. O.]

4.—Albrecht and Ghon report 4 more case-histories of patients with cerebrospinal meningitis, in all of whom the meningococcus intracellularis of Weichselbaum was found and cultivated. They refute many of the assertions recently made by Heubner. [M. O.]

VIRCHOW'S ARCHIV.

Band 168. Heft 2.

6. Spongy Organs and Foudroyante Gangrene. WESTENHOEFFER.
7. Mixed Tumors of the Salivary Glands. STEINHAUS.

8. Ectoderm (Dermoid) Cysts in the Broad Ligament and in the Wolffian Body of the Fetus and New-born. MEYER.

9. A Case of Sarcoma of the Scapula. Contribution to the Knowledge of Chondroma of the Shoulderblade.

U. DEGANELLO.

10. Contribution to the Knowledge of Metastasis of Primary Kidney Carcinoma. SUTTER.

11. A Racemose Arterial Angioma in the Region of the Artery of the Corpus Collosum. E. DEETZ.

6.—Westenhoeffer reports 5 cases of spongy organs. The first, a woman of 22 years, after an abortion and manual evacuation of the uterus, developed collapse with high temperature and finally died. The autopsy was made 34 hours after death, and multiple abscesses were found throughout the organs. The liver was full of small air bubbles, and numerous rod-like bacilli were found in the substance. Microscopically it was found that the radicles of the portal vein contained these bacilli, and that the air bubbles corresponded in distribution to these radicles. The source of infection was evidently at the site of the placenta in the uterus, and here, chiefly streptococci and diplococci were found. The same was true of the miliary abscesses in the lungs. As a result of a series of accidents, cultures were not made until 33 days after the autopsy when the colon bacillus was obtained from the liver tissue, and it was supposed that this was the cause of the condition in the liver. The second patient, a woman of 50 years, died in status epilepticus. There was emphysema of the mesentery. Cultures from these areas again showed the colon bacillus. The third patient, a man of 65 years, suffered from emphysema of the mucous membranes of the bladder and also of the mesentery. Cultures again showed the colon bacillus. The fourth patient, a woman of 30 years, died in collapse as a result of Cesarean section after partial embryotomy. The spleen, kidneys and liver were full of air bubbles. Bacteria were found similar to those in the first case, which on investigation were found to consist of an actively motile bacillus growing anaerobically and aerobically, giving rise to an odor of fresh cheese, and forming large quantities of butyric acid. It was not pathogenic for animals and appeared related to the group of the bacillus butyricus aerophilus. Other microorganisms were also found in the pus of the gas abscesses of injected guinea-pigs. The fifth patient, a girl of 18, died as a result of eclampsia during child-birth. At the autopsy, 33 hours after death, in addition to a recent verrucose endocarditis there was found considerable putrefaction of the organs and some emphysema of the kidneys. The colon bacillus was found in these organs. In addition, the bacillus of phlegmonous emphysema was found in the fourth and first cases. Westenhoeffer believes that instances of spongy organs are always a post mortem manifestation, or, at least, that infection only occurs after the organism has been infected by some other form of bacteria, that, in fact, a gas bacillus capable of causing disease of itself in human beings does not exist, and that the bacillus of malignant edema only acts in connection with severe infectious diseases, a sort of nosoparasitism. Other microorganisms that form gas, such as the bacillus of phlegmonous emphysematosis, the granulo bacterium mobilis, the proteus, and the colon bacillus, only act secondarily upon necrotic tissues. Therefore, he prefers for spongy organs the term *cadaverous emphysema*. He thinks that the cell necrosis which was sometimes found in these organs was rather an example of physical and chemical than of pathological changes. Salkowski has examined the liver of the first patient and found present dysalbumose, deuteroalbumose, xanthin bodies, possibly leucin, but no sugar. There was also a slight trace of glycogen; in addition acetic and lactic acids were found. There appears to be nothing very characteristic, although Salkowski states that acetic acid has not yet been described as a constituent of

the cadaver. Milk, in which the bacillus described in the fourth case had grown, showed the presence of butyric acid and some succinic acid. Lactic acid was also present. [J. S.]

7.—Steinhaus contributes a controversial article upon the origin of mixed tumors of the parotid, combating particularly the view of Hinsburg, who believes in the epithelial origin of these growths. He does not think that they are epithelial, but rather endothelial in structure, and the evidences of secretion he considers merely mucilaginous degeneration of the cells. [J. S.]

8.—Meyer describes some cases in which he found peculiar cysts in various structures in newborn children. All these were found in parts that are derivatives or relics of the Wolffian body. The diagnosis he considers easy; the histogenesis is also clear, that is they are ectodermic structures. They are interesting because they are illustrations of the dislocation of embryonal tissues. It appears that in embryos up to the third week fragments of the ectoderm from the posterior lateral lumbar region are easily dislocated into the urinary structures, and that these may give rise to ectodermic cysts surrounded by mesoderm. These do not produce hair or glands and probably commence to degenerate during fetal life. [J. S.]

9.—Deganello reports a most interesting case of a sarcoma occurring in the scapula and humerus of a woman, 46 years of age. At the time of observation it had lasted about 2 years. There was some pain, considerable enlargement of the left shoulder joint and a fracture of the upper portion of the humerus. Czerny removed the shoulder girdle on the left side and the left arm by operation. Recurrence could not be determined 3 weeks later, but 4 months later it was found that the patient had died from some undeterminable cause. Microscopically there were 2 tumor masses, one springing from the scapula and consisting of a mixture of chondroma and spindle cell sarcoma, and one springing from the humerus which appeared to be a pure chondroma. The chondromatous tissue in both instances was hyaline. Deganello discusses the various possibilities that this combination of tumors presents: Either the primary tumor was situated in the scapula and only the chondromatous portion gave metastasis, or it was situated in the humerus and gave metastasis to the scapula which underwent sarcomatous change, or the two tumors were entirely independent. As a result of various considerations he believes the first supposition is correct and, therefore, makes a diagnosis of primary chondrosarcoma of the scapula probably arising from the periosteum with chondromatous metastasis to the humerus. Only 3 similar cases have been reported. Nevertheless, a table is given of all the forms of chondroma of the scapula, 25 being taken from Walder's article upon this subject, and 14 collected since that time. The classification of these tumors shows that we have simple chondromata which may be hard or soft; mixed chondromata, which may be myxomatous, osseous or sarcomatous, and finally the osteoid chondroma described by Virchow. The simple chondromata usually appear between the ages of 15 and 56 years, mixed chondromata between the ages of 2 and 46 years. They are slightly more frequent in males than in females, and on the left side. They usually arise from the lower portion of the scapula; vary considerably in size and vary greatly in duration, one case of mixed chondroma having lasted 33 years. In 11 hard chondromata relapse occurred twice, in 12 soft chondromata relapse occurred 3 times and metastasis twice. Twenty-one operations were performed in the 23 case of simple chondromata with 7 deaths. Ten operations were performed on mixed chondromata with only one death. The proportion of simple to mixed chondromata is about 7 to 3. [J. S.]

10.—Sutter reports a case of carcinoma of the left kidney, in a man, 56 years of age, that gave metastasis to the epididymis and the left vas deferens. The case was inoperable, and the patient finally died. The autopsy was per-

formed 48 hours after death, and an examination of the structures showed that metastasis had occurred along the spermatic vein and had involved the tissues drained by it. The interesting feature of the case was the transportation of the metastatic elements against the venous current. He collects the opinions and observations of other pathologists upon this point which show that it may occur; speaks of the fact that in his own case only the venous structures were involved; that arterial transportation did not occur; calls attention to the probable occlusion of the spermatic vein so that the circulation of blood was seriously impaired. He then discusses the subject of carcinoma of the veins in general, speaks particularly of the frequency with which glandular carcinoma produces involvement of the veins, whereas squamous carcinomata are rarely found in this situation, and then summarizes his case as one of glandular cancer of the left kidney giving metastasis to the urogenital apparatus along the spermatic vein, and suggests that possibly this may also be the route by which tubercle bacilli pass from the kidney downward. He believes that the term "carcinoma of the veins" should be restricted to those cases in which these vessels do not serve merely for transportation, but are also themselves the seat of metastasis. He then discusses briefly the relative part taken by different cells in tumor proliferation. [J. S.]

11.—Deetz reports the following case: A woman was brought into the hospital covered with blood and unable to give any information concerning herself or the source of the hemorrhage, but it was found that her tongue was badly bitten. Three days later she had a typical epileptic attack involving the left side of the body, this was followed by status epilepticus and the patient died. At the autopsy the interesting lesion was a cirroid aneurysm in the region of the artery of the corpus callosum which had compressed the brain substance in its neighborhood. Microscopically all the vessels in this region were found to be greatly thickened and enlarged. This enlargement seemed to take place chiefly at the expense of the media, although the intima was also slightly thinner than normal. These vessels appeared to involve the brain substance because, when they were not too closely placed together, proliferative neuroglia tissue could be seen between them. They partially replaced the substance of the frontal lobes. Comparison of the literature shows that these tumors occur at almost any time of life. [J. S.]

DEUTSCHES ARCHIV FUER KLINISCHE MEDICIN. Band 72. Hefte 5 und 6.

18. Eventratio Diaphragmatica. DOERING.
19. The Influence of Carcinoma Upon the Gastric Digestive Processes. EMERSON.
20. The Presence of Typhoid Bacilli in the Urine. JACOBI.
21. Clinical Observations Upon Cardiac Arrhythmia. LOMMEL.
22. Pathological Anatomy of Chorea Minor. REICHARDT.
23. A Second Contribution to the Knowledge of Facial Paralysis With a Contribution to the Physiology of Taste, and of the Secretion of Sweat, Sputum and Tears. KESTER.
24. Phosphaturia. SOETBEER and KRIEGER.
25. Studies Upon the Knowledge of the Viscosity (Inner Friction) of Human Living Blood. Second Communication. HIRSCH and BECK.
26. The Postscript of a New Method for the Investigation of the Function of the Stomach, According to Professor Sahli. SEILER.
27. Brief Communications: (1) A Case of Embolus of the Superior Mesenteric Artery With Termination in Cure. (2) An Abscess of the Brain Latent for Five Years, Which Manifested Itself With the Symptoms of Atropine Poisoning. AUFRECHT.
- 18.—Doering reports the case of a man, 60 years of age,

who had always been healthy. After taking cold he had increasing dyspnea, swelling of the feet and was, therefore, brought to the hospital. When examined, it was found that the thorax was symmetrical; there was no difference in the respiratory movements; percussion showed a tympanic note from the third rib downward on the left side. The heart dulness was in the third intercostal space on the right side; over the lower portion of the left thorax there was loud intestinal gurgling. A diagnosis was made of dislocation of the heart to the right and retraction of the left lung. The patient died, and at the autopsy it was found that the left side of the diaphragm was abnormally high, the left lung contained 3 lobes and was very small, although otherwise normal. The right lung was normal. The heart showed nothing pathological. Microscopically the diaphragm was normal and also the left lung. The differential diagnosis between eventration of the diaphragm and diaphragmatic hernia cannot be made, excepting that eventration is more likely when as much disturbance of the arrangements of the tissues is present as in this case. The fact that the condition is without symptoms indicates its origin in the early stages of existence. [J. S.]

19.—Emerson has performed a series of experiments in order to answer certain questions regarding the influence of carcinoma upon the processes of digestion. The first question was why free hydrochloric acid introduced into a carcinomatous stomach disappears at once. This could be due either to combination with the food, or with substances secreted by the stomach, or with certain constituents of the ashes of the nutriment. It is also possible that the secretion of the carcinoma itself might explain the hydrochloric acid deficit in the gastric contents. This could only occur if a certain portion of the carcinoma was subjected to autolytic processes. Emerson, in order to prove this last point, added 10 gm. of fibrin to each of two portions of a hydrochloric acid pepsin mixture and into one of these mixed a secondary cancer nodule from the liver. In addition, a third portion of water containing 10 gm. of fibrin and a mass of carcinomatous tissue but without any pepsin or hydrochloric acid was also placed in the incubator. In the first 2 tubes the fibrin had disappeared in the course of 24 hours. In the tube without the cancer tissue free hydrochloric acid was present, and in the other tube there was a deficit of 6. Therefore, the presence of carcinomatous tissue had caused increased combination of hydrochloric acid. A second series of experiments were then made in which 2 tubes were prepared as before, both containing HCl. pepsin, fibrin and carcinomatous tissue, and the cancer tissue in one of these tubes had been heated to 80°. It was found that the deficit in HCl. was much less in the tube in which the cancer mass had previously been heated. A similar experiment was made with an excess of HCl., and it was found that in the tube with the heated carcinoma tissue the amount of free HCl. was considerably greater than in the other. Similar experiments were also made with portions of putrefying cancer, but the results were entirely negative. It appears, therefore, that an unaltered carcinoma is capable of producing a certain portion of basic substances. He then performed a series of experiments upon the digestive processes themselves, employing zinc sulphate for the purpose of separating the albumoses from the stomach contents. He suggests that in carrying out this reaction the zinc sulphate be added in successive small portions for a considerable period of time, so that thus the exact point of saturation may be determined. Phosphotungstic acid was employed for the precipitation of the peptones in the various solutions and the amount of nitrogen determined by the Kjeldahl method. The results in a normal case were as follows: Protalbumoses, 63.4%; deutero-albumoses, 17.3%; the phosphotungstic acid precipitate, 13.6%, and the remainder 5.7% of the total nitrogen. That is to say, the total quantity of albumoses was about 80%. Experiments made upon artificial solutions containing cancer tissue showed that, if this was not heated, digestion proceeded much farther. A series of cases of cancer tested according to Emerson's method showed that instead of the albumoses equalling 80% of the total nitrogen, they were often less than 40%. The conclusion that Emerson

reached from these experiments is that in the carcinomatous tissues there is a ferment that is capable of digesting albumin and converting it beyond the albumose stage. This ferment acts whether HCl. is present or not. In conclusion Emerson insists upon the necessity of extreme accuracy in the analysis of stomach contents. [J. S.]

20.—Jacobi examined the urine of 45 typhoid fever patients, in order to determine the presence of typhoid bacilli in it, and was able to obtain them in 7 cases on repeated examination, that is to say, in 20% of the cases examined. Comparing these results with those of other investigators he finds that the average is about 28% of all cases hitherto examined and reported. He finds strong reason to believe that the bacteria do not appear in the urine unless there is some lesion of the kidneys, 6 of the 7 patients having albumin constantly present and the seventh having albumin present when the bacteria were first found, although subsequently they were still present after the albumin had disappeared. Bacteriuria in typhoid fever may occur early or late, but rarely causes subjective symptoms. It should not render the prognosis any more grave, because it means the elimination of a considerable number of the bacteria from the body. It is of little diagnostic value. In regard to the prevention of danger Jacobi reaches the conclusion that urotropin is not a sufficient disinfectant and, therefore, each specimen should be disinfected outside the body. [J. S.]

21.—Lommel continues his paper upon cardiac arrhythmia, discussing its influence particularly on respiration. He reports in brief the histories of a number of cases and gives reproductions of a number of curves that he obtained. In many cases of fever slight arrhythmia due to respiratory influence was present. This was sometimes evident in forms of disease in which there was reason to believe that the heart muscle was directly involved. He concludes his paper with the statement that many forms of cardiac arrhythmia are characterized by an increased rapidity of the pulse-rate during inspiration. Such forms are to be regarded merely as quantitative increases of the normal respiratory variation, and not as a result of organic heart disease. These forms occur frequently during convalescence from febrile diseases and are probably of purely nervous origin. [J. S.]

22.—Reichardt reports 2 cases of chorea minor, the first in a girl of 17 years, who in the course of a moderately severe attack suddenly became confused, restless, and had hallucinations. Six days later there was increase in the temperature, coma and death. The autopsy was made 4 hours after death, and signs of recent endocarditis were found. The spleen was enlarged and the organs congested. Cultures of the heart blood showed the presence of the staphylococcus aureus. Microscopical examination of the brain and spinal cord by the Marchi method showed degeneration of the anterior and posterior roots of the cord. The ganglion cells were normal; there were no signs of inflammation in the brain. The most important change was an accumulation of leukocytes in the lymphatic spaces of the bloodvessels of the cortex. The second patient, a boy of 15, was admitted to the hospital with symptoms of chorea and acute endocarditis. He died very suddenly after some improvement. The bacteriological examination of the brain showed in one tube some colonies of the staphylococcus albus. Microscopically there was some accumulation of leukocytes, chiefly mononuclear, in the perivascular spaces of the bloodvessels of the cortex, and diffuse degeneration by the Marchi method. These cases appear to indicate the infectious nature of chorea. [J. S.]

23.—Köster believes that in paralysis of the facial nerve disturbance of the secretion of tears occurs when the injury to the nerve is in the region of the geniculate ganglion. This he has proved by autopsies upon 2 subjects. In all the cases that he has examined he has found that disturbance of the tear secretion and of the sense of taste is relatively common, and that this disturbance occurs particularly when the geniculate ganglion is involved. The changes, however, may be the result either of irritation or paralysis. The peculiar character of the changes in some of the cases accords with the theory of Müller and Hering, of the specific energy of the nerve fibers. A careful analysis of the trigeminal disease inclines Köster to believe that this

nerve does not necessarily innervate the tear ducts. Neither does he think the evidence sufficient that the tear secretion is directly influenced by the sympathetic nerve. If, however, it is finally proven that the sympathetic nerve innervates the tear duct, we would have in the tear glands, as in the salivary glands, an example of double innervation. [J. S.]

24.—Soetbeer and Krieger report the case of a woman who developed symptoms of disease of the urinary organs and intestines. The urine was always turbid. The bowels were exceedingly irregular, sometimes loose, sometimes constipated. The turbid urine was found to contain large quantities of calcium phosphate and carbonates. The patient was immediately placed upon a fixed diet. A series of experiments showed that the general cause of the disease was an increased quantity of calcium in the urine. When the phosphates were reduced and the urine became clear, the symptoms still persisted. The most beneficial treatment was probably the correction of the disturbance in the colon. [J. S.]

25.—Hirsch and Beck have performed a number of experiments in order to determine the viscosity of the blood. They found that in the majority of cases of nephritis this increased viscosity did not exist. In the cases in which diminished viscosity was present it was explained by the existence of an hydremia. In several cases, however, the viscosity was very much increased, and in none of these was there any edema and only insignificant hydremia. The increase in the viscosity occurred in some cases coincidentally with the presence of uremic symptoms. The old hypothesis of Bright, that the hypertrophy of the heart was due to the direct influence of the poison upon the heart muscle, seems confirmed by these investigations. [J. S.]

26.—Seiler, after employing Sahli's method for the investigation of the functions of the stomach, attempted to discover whether the fat of the flour-soup, which was introduced into the stomach in this test, underwent any perceptible splitting. In order to answer this question he made a careful estimation of the fatty acids in the test-meal and in the stomach contents, employing several methods for this purpose. The results of these investigations showed that there was a perceptible amount of fatty acids formed. This splitting also persisted in the stomach contents after the withdrawal from the stomach, although it was so slight as to be entirely negligible. This amount of fat splitting practically does not affect the results obtained by the method. However, the question arose whether there might not be enough fatty acids formed to affect the accurate estimation of the total acidity of the stomach. The fatty acids, however, are not in solution, but in suspension, and as a result do not affect the indicator during ordinary titration. The amount of fats that are split up into fatty acids varies within moderate limits and averages about 6.3%. In conclusion, he calls attention to the fact that the splitting of fats may, in cases of subacidity of the gastric juice, produce an error that is of importance. [J. S.]

27.—Aufrecht reports the case of a girl, 8 years of age, who complained of pain in the right side of the abdomen. Three days later she had repeated vomiting, the vomitus consisting of almost pure blood. The abdomen was tense, retracted and tender, especially the lower border of the liver in the region of the gall-bladder. The heart was greatly enlarged, and there was a loud systolic murmur heard over the base with accentuation of the second pulmonary sound. During the subsequent course of the disease the patient had hemorrhage from the nose, increasing abdominal pain and absolute constipation. This, however, was relieved on the fifth day, and the stools contained blood. The patient gradually improved and finally recovered. Aufrecht believes that the symptoms were caused by an embolus of the superior mesenteric artery, basing his opinion not on the symptoms, but upon the fact that in the early course of the disease there was an indefinite area of resistance about the size of a five-mark piece below the border of the liver. (2) Aufrecht reports the case of a man of 49, who, at the age of 44, received a severe injury to the head and side. From this time he complained bitterly of pains in the side and was unable to perform any severe labor. Five years later Aufrecht prescribed for these pains in-

creasing doses of atropine. Two days later he was found upon his stool as doorkeeper in a business house where he was employed, bent toward the right and unable to rise. He complained of severe headache, was confused and had difficulty in speaking. There was slight twitching in the right arm, and the pupils were wide. Investigation showed that apparently 10 times the dose of atropine that had been ordered had, through the mistake of the apothecary, been administered, although subsequently this was found not to be the case. [J. S.]

CENTRALBLATT FUER INNERE MEDICIN.

August 23, 1902.

Measurements of the Bloodpressure in Basedow's Disease. D. SPIETHOFF.

A series of 20 cases was studied with the Riva-Rocci and von Recklinghausen instruments, and the measurements were compared with the rapidity of the pulse. The cases were divided into 5 groups, in direct accordance with the measurements of the bloodpressure. The lowest group and the highest included most of the severe cases. The bloodpressure, however, was not in direct accord, either when very low or very high, with the severity of the disease. The cases of the remaining 3 groups show moderate bloodpressure (115 to 135, von Recklinghausen); but, as a rule, those with low pressure were severer cases, and those with higher pressure were milder. The pulse-rate showed no direct and constant relation to the severity of the disease. The conclusions reached are: That the bloodpressure does not show any constant changes in exophthalmic goiter. It may be reduced or increased; but, in the milder cases, is about normal. The author intimates that he considers that the changes which occur in the pressure are due both to alterations in the heart action and to vasomotor changes. [D. L. E.]

August 30, 1902.

Concerning "Wandering Heart." LUDWIG BRAUN.

The author makes a distinction between wandering heart and cardiopertosis, the latter being, of course, a mere dropping of the heart. He does not consider cardiopertosis to be a distinct disease; it is merely the result of enlargement of the heart. Wandering heart, as a cause of symptoms, he considers most unimportant. He insists that the hearts of different persons who are in health show considerable variations in their movability; and that, in the cases in which excessive movability of the heart has been thought to be the cause of symptoms, there were other cardiac conditions that might readily explain these symptoms, or there was marked general neurasthenia, and the symptoms complained of were apparently only a part of the neurasthenic condition. The reason that this condition has been thought to be the cause of symptoms is, he considers, that there is a general tendency to accept any gross anatomical change discoverable as the cause of functional disturbances of the heart, the difficulty in explaining these disturbances being so great that many authors, in their anxiety to explain them, are willing to accept any condition as the cause. Braun believes that the term wandering heart should disappear from clinical pathology and terminology. [D. L. E.]

September 13, 1902.

Alimentary Glycosuria and Levulosuria in Diseases of the Liver. LUIGI FERRANNINI.

Though apparently unacquainted with the work of Strauss upon exactly the same lines, the author has carried out a series of investigations in patients with liver-disease, the whole including 16 patients. He found that in one patient it was impossible to demonstrate alimentary glycosuria or levulosuria. In the other 15 alimentary levulosuria was always positive. Only 10 patients reacted to the ingestion of glucose, 3 of these, however, being in persons with chronic malaria and enlarged livers, and 2 being pa-

tients with stagnation-icterus of syphilitic origin. Further, of the 10 patients who showed alimentary glycosuria, in 7 it was necessary, in order to demonstrate the presence of the sugar, to use the special method of Reale (preliminary precipitation with lead-acetate, then adding ammonia and using this in the test for sugar). Of the 15 cases showing levulosuria, it was necessary in 4 instances, to use Reale's test. Ferrannini decides that in testing an insufficiency of the glycogen-producing function of the liver it is necessary to use levulose, instead of glucose; and that, if the liver is considered to be diseased, it may be possible to show it by alimentary levulosuria, rather than by alimentary glycosuria. [D. L. E.]

October 4, 1902.

A Case of Poisoning with the Douglas Pine (*Pseudotsuga Douglasi*). R. NEUDORFFER.

The case reported is that of a woman, 60 years of age, who for some time was occupied in making decorations with the branches of pine and spruce trees. She had, however, worked almost exclusively with the pine branches. After 2 days of this work, she was taken sick with nausea and headache, followed by a stuporous condition with difficult breathing and some delirium. There was also diarrhea. She scarcely responded to even loud cries. During the next few days she improved somewhat, becoming less stuporous, but showing marked mental disturbance at times. The condition continued with gradual improvement up to a month after the onset of the attack. At this time she still showed some disturbance of memory, but otherwise was in fairly good condition. A month later than this she was practically well. During the early part of the attack the urine was examined for turpentine or related substances, but none was found. Albumin was present, but casts were absent. The author thinks that the case must be considered one of poisoning with pine, but he believes that this was not due to turpentine oil.

[D. L. E.]

October 11, 1902.

Contributions Concerning the Melanins. Preliminary Communication. DANIEL HELMAN.

Only the conclusions arrived at from the author's work are given in this communication. He finds that, in an examination of 11 melanotic malignant tumors, he was able in 9 instances to confirm the statement of Lubarsch that the presence of melanin means the absence of glycogen. This rule, however, is not an absolute one. The amount of melanin was found as high as 7.3 per cent. Reckoned from the dry residue, it would, of course, be far higher. Four of 8 cases contained both iron and sulphur, 3 cases only sulphur and one iron, but no sulphur. The author has discovered that glycogen may be found in specimens kept in alcohol for as long as 15 years. True melanogen may be considered to be present in urine: (1) If the careful addition of chloride of iron causes the development of a black precipitate; (2) if this precipitate dissolves in sodium carbonate, forming a black solution; and (3) if, from this solution, mineral acids will precipitate a black or brownish-black powder. The last of these three conditions is very important, for other substances may cause both of the preceding reactions. Melanogen may be found in urine, even when melanotic tumors are absent, although this is not common. If one injects solutions of pure tumor-melanin or urine-melanin subcutaneously, the organs will reduce these substances at once, and they will become invisible. According to Kobert, the most important place in which this occurs is the liver. Melanin injected subcutaneously into frogs is passed into the intestinal tract un-reduced. Sodium siplate causes convulsions in frogs. The other melanotic substances do not produce convulsions and, in moderate doses, are not poisonous. In large doses, they cause progressive weakness, reduction of the urine excretion and death; although it is possible that the sodium carbonate used to bring about their solution has much

to do with these symptoms of poisoning. Subcutaneous injections of melanin do not cause the liver to lose its glycogen. [D. L. E.]

October 18, 1902.

Some Observations Concerning Two Unusual Poisonings. FRIEDEBERG.

The first case was one of poisoning due to fluid extract of *hydrastis*. A girl of 22 years, because of marked uterine hemorrhage following abortion, took about 3½ drams of this drug. She soon became affected with nausea, vertigo, faintness, restlessness and headache; and then with hallucinations, dyspnea and precordial oppression. The symptoms improved, and the patient was discharged cured after a few days. The other case was one of petroleum-poisoning. A man took, by mistake, two swallows of coal-oil. He had marked burning in the esophagus and stomach, headache, diarrhea and weakness; and everything seemed to smell and taste of petroleum. There was no odor of this oil in the urine or breath. The disturbance of smell and taste lasted 6 days and then suddenly disappeared. All the other symptoms vanished on the third day. [D. L. E.]

October 25, 1902.

The Development of Chronic Tuberculosis from the Standpoint of Cell Metabolism. J. MITULESCU.

The author believes that tuberculosis evolves in 3 periods. In the first, there is slight intoxication, signs of the disease are very uncertain, and diagnosis is possible only through the use of tuberculin. In the second period distinct lung signs appear; the bacillus is usually discoverable in the sputum; and a compensatory condition of the lung, amounting to cure and perhaps to complete cure, is possible. In the third period the organism is unable to control the destruction of tissue, and both cure and production of a compensatory state are impossible. The author describes a series of cases in which he made investigations of the metabolism, showing that, with the advance of the disease, there is an increasing tendency to a tissue-loss. [D. L. E.]

MEDICINSKOIE OBOZRENIE.

Vol. LVII, No. 10.

1. The Treatment of Local Tuberculosis. V. ZERENIN.
2. Five Unusual Cases of Echinococcic Infection. G. A. GONTCHAROFF.
3. Material For the Study of Trophoneurosis of the Extremities. M. N. MICHAIOFF.
4. On the Treatment of Scarlatinal Angina with Injections of Carbolic Acid. A. A. POLIEVKTOFF.

1.—Zerenin reviews the success so far achieved by various authors in the treatment of local tuberculosis; he then gives the results of his own observations extending over a period of 15 years. He arrives at the general conclusion that whatever method is employed it is rendered far more efficacious in combination with outdoor life, especially in the country. All of his patients who left the hospital for the country did well, while those who could not enjoy country life suffered from relapses and protracted convalescence. He argues that the aggregation of such patients in special sanatoria is both undesirable and impractical. A small subsidy would enable the poor patients to live in the country under supervision of the hospital physicians. He, therefore, urges the establishment in connection with every hospital of a fund, the interest of which would be used for that purpose. He himself contributed 6,000 roubles toward such a fund. [A. R.]

2.—Gontcharoff reports 5 unusual cases of echinococcic infection. In one patient, a boy of 18, the parasite invaded the liver, and the cyst penetrated the contiguous portion of the stomach, giving rise to uncontrollable vomiting which was only relieved by an operation. In the second patient, a boy, 16 years old, was found affected with echinococcus of the abdominal parietes. In the third pa-

tient, a man, 46 years old, the echinococcus invaded the left rectus muscle, giving rise to a tumor and dyspeptic symptoms. In the fourth patient, a woman of 45, the parasite invaded the right vastus internus, forming a hard tumor which was diagnosed as a fibroma. An operation, however, disclosed the true nature of the affection. In the fifth patient, a man, 40 years of age, the echinococcus invaded the pelvis and caused considerable destruction of the left sacrum and ilium. In addition to the above cases, the author observed for the past 11 years 12 others, distributed as follows: Echinococcus of the liver, 6; of the spleen, 2; without designation of the affected organs, 2; of the abdomen, 1; and multiple of the abdomen, 1. [A. R.]

3.—Michailoff describes several interesting cases of trophoneurotic degenerations of the extremities. In 5 of the patients the degenerations were secondary to tabes and syringomyelia, while 3 others belonged to the type of Morvan's disease. [A. R.]

4.—Polievktoff, following the recommendation of Heubner, treats scarlatinal angina with injections of carbolic acid. He modified the ordinary Pravaz syringe so that it holds 3 cc. and has a long needle bent at an obtuse angle at the base. This, as well as the 3 rings for supporting the syringe with the index and middle fingers and the thumb, makes it convenient to handle. In addition he employs a mouth-gag. He injects from one to 3 cc. of a 3% solution of carbolic acid into the tonsils and sometimes into the soft palate every day for 4 or 5 days, or until the temperature is lowered. The urine is carefully watched, and the injections discontinued if the slightest signs of poisoning appear. No other drug or application is used. He has employed this method in 110 cases of scarlet fever with very good results. He ascribes the beneficial effect to the action of the carbolic acid on the streptococci and the influence it has in preventing secondary diphtheria. The mortality among the patients thus treated was 16%. [A. R.]

LA RIFORMA MEDICA.

October 29, 1902.

1. Stercoraceous Vomiting of Hysterical Origin.

F. FAZIO.

1.—Fazio reports a case in which sudden inability to effect a fecal evacuation was followed by stercoraceous vomiting; the phenomena continuing and resisting all remedies till suggestive therapeutics with gentle abdominal massage overcame the constipation, and, with it, the secondary symptom of stercoraceous vomiting. The author maintains that sudden suppression of the intestinal function may, in a hysterical subject, give rise to stercoraceous vomiting, as suppression of the urine may induce vomiting of urinous matter; and that such suppression of the intestinal function is caused by a real intestinal obstruction consisting in spasm of the intestinal wall, in sudden cases not preceded by constipation; or paralysis, in cases which have developed slowly, with continued constipation, as in nervous paralytic ileus. [R. L. F.]

October 31, 1902.

1. Effect of Extirpation of the Medulla of the Suprarenal Capsule. G. VASSALE and A. ZANFROGNINI.

1.—Vassale and Zanfrotnini give the results of a series of experiments upon rabbits and cats, in which extirpation of the medullary portion of the suprarenal capsule was practised. When the medulla was entirely removed and the cortical portion left intact, the animals soon died with the same acute symptoms commonly seen after extirpation of the entire suprarenal capsule; while they lived from 3 to 4 weeks when even small fragments of the medulla were left; though symptoms of a special cachexia were seen. (Anorexia, psychical depression, asthenia, lowered temperature and great loss of flesh.) Hence the authors conclude that the medullary portion of the suprarenal capsule is the seat of a special function of vital importance. It is intended to pursue the investigations further, in order to determine the rôle of the cortical portion. [R. L. F.]

November 3, 4 and 5, 1902.

1. Experimental Research and Anatomopathological Observations Concerning Segmentary Myocarditis.

G. GIACOMELLI.

1.—Giacomelli sums up his findings as follows: (1) Fragmentation and disintegration of the myocardium are the heart-lesions most frequently seen in auto-intoxication and in acute poisoning, as from chloroform, mercury, fungi, etc. (2) Such changes are much more frequent in the above named intoxications and poisonings than in infections in general. (3) Mechanical action and sudden contraction of the heart, produced by electricity, do not cause segmentation. (4) Forcible contractions, produced by faradization, in animals in whom experimental infections have previously been produced, do not induce segmentation. (5) The importance of fragmentation and disintegration of the myocardium is greater than that hitherto attributed to fatty degeneration. (6) No relation exists between degeneration of the fibers and segmentation. [R. L. F.]

November 6 and 7, 1902.

1. Tabes Dorsalis and Aortitis. P. F. ARULLANI.

1.—From a review of the literature of the subject and from his personal experience with 68 tabetics, Arullani concludes that aortitis is of frequent occurrence in patients afflicted with tabes dorsalis, and that a relative valvular insufficiency accompanies the aortitis; the diastolic murmur which characterizes the former being frequently overlooked unless dilatation of the aorta, induced by exertion, brings out the sound more distinctly. The presence of aortitis, in the author's opinion, accounts for the aortic aneurysm sometimes seen in tabetic cases. Arullani inclines to the belief that the same toxic influences which are responsible for tabes are also concerned in the etiology of aortitis, insufficiency and aneurysm. He also cites 2 cases in which variola seemed to be the etiological factor. The suggestion is made that, in view of the association of tabes with vascular change, especially in the aorta, the lesion of the nervous system may induce, or at least aggravate, the vascular lesions. [R. L. F.]

November 8, 10 and 12, 1902.

1. Contribution to the Clinical Study of Anachlorhydria. Investigation of Intestinal Putrefaction and Hypercrinic Medication. L. FERRANNINNI.

1.—Absence of hydrochloric acid in the stomach is the one secretory anomaly which has received practically no attention, says Ferranninni; and such investigations as have been made relate solely to secondary anachlorhydria. In primary anachlorhydria, a condition of depression of the innervation presiding over secretion obtains, in contrast to the nervous excitation seen in hyperchlorhydria. That the 2 conditions depend upon disturbances within the same sphere, though not of the same nature, is well illustrated by the facility with which one form passes into the other as a result of psychical traumatism or even without any appreciable cause. The author finds that transitory anachlorhydria is not characteristic of the primary form, as the symptom has been known to persist in this as in secondary anachlorhydria. As to the effects of absence of hydrochloric acid, Ferranninni finds that of the 2 principal functions of hydrochloric acid—proteolytic and anti-fermentative—absence of the latter function is of the graver consequence, in that lactic acid may, to some extent, fulfil the proteolytic function of hydrochloric acid; but the gastric fermentation, following in the train of anachlorhydria, may give rise to the most distressing symptoms; further, secondary putrefaction in the intestines not infrequently accompanies absence of hydrochloric acid from the gastric secretion. The author deprecates the routine treatment of such cases with hydrochloric acid and pepsin; experience having taught him that pilocarpine and strychnine may be relied upon to excite secretion of hydrochloric acid in cases in which the glandular structure is intact. [R. L. F.]

LA PRESSE MEDICALE.

October 22, 1902. (Vol. 11, No. 85.)

1. Cardiorrhaphy. F. TERRIER and E. RAYMOND.

1.—In wounds of the heart both heart and pericardium may be injured, or either alone. In most cases both are harmed. Terrier and Raymond, who have collected 51 cases of cardiorrhaphy for heart wounds, relate in detail the 6 steps of the operation, illustrating their description

with diagrams. An external flap is resected to the ribs and the cartilages of the third, fourth, fifth and sixth ribs are removed. The pleura is then turned back and the pericardium opened. After finding the wound in the heart, it is sutured, the first tied suture being held to fix the heart for inserting the next suture. Then the pericardium, pleura and flap are replaced. Drainage may be left in place if necessary. [M. O.]

October 25, 1902. (Vol. II, No. 86.)

1. Insufficiency of the Thyroid and Parathyroid Glands and Eclampsia. A. FRUHINSHOLZ

and P. JEANDELIZE.

2. A Modern Operating Room. E. de LAVARENNE.

1.—Eclampsia is probably due to some intoxication as yet unknown. Recent investigations show that eclampsia occurs frequently among myxedematous women, if they become pregnant, and has been noted with but traces of albumin in the urine. The case-history of such a patient follows in detail. Experimentally eclampsia is noted after the removal of the thyroid gland. Experimentally, also, thyroid and parathyroid insufficiency cause albuminuria. In treating eclampsia, therefore, Fruhinsholz and Jeandelize advise the administration of thyroid gland. [M. O.]

2.—The newly erected Maison de Chirurgie, Paris, is described, with diagrams showing its installation, setting forth the equipment of a modern operating room. [M. O.]

October 29, 1902. (Vol. II, No. 87.)

1. The Eosinophilic Leukocyte. VICTOR AUDIBERT.

1.—Audibert reviews what he considers the proper technique for taking, fixing, staining and counting the leukocytes, each step in detail. He then describes the eosinophilic leukocyte, its aspect and differential diagnosis. He uses chloroform for fixation, Ehrlich's tri-acid stain, and a solution of glycerine and water, colored with eosin, for collecting the leukocytes. The eosinophile contains large granulations, a bilobed nucleus which is but slightly colored, and the granules are either close together throughout the cell or arranged about the nucleus. Eosinophiles are often amphophilic, besides. Care should be taken not to mistake pseudo-eosinophilic mononuclear leukocytes for eosinophiles. [M. O.]

November 1, 1902. (Vol. II, No. 88.)

1. The Pathogeny of Common Sublingual Ranula.

B. CUNEO and VICTOR VEAU.

1.—Common sublingual ranula is a mucoid cyst of the floor of the mouth, developing below the external paralingual furrow. A ranula is generally unilocular, with a wall of polymorphous and fragile epithelium. After reviewing the various theories advanced to explain its occurrence, Cuneo and Veau conclude that a ranula is due to the development of the epithelial debris left when the external paralingual furrow closes. Its relations, evolution and histology all confirm this view. The best treatment of the condition is total extirpation of the cyst. [M. O.]

November 5, 1902. (Volume II, No. 89.)

1. The Indications for the Bottini Operation.

E. DESNOS.

2. The Scientific Work Done at the International Tuberculosis Conference. E. de LAVARENNE.

3. A New Cocaine Solution for Rachicocainization.

GUINARD, RAVAUT and AUBOURG.

1.—Desnos states that the Bottini operation is advisable with moderate hypertrophy of the prostate, affecting the middle lobe, with incomplete or complete retention of urine. It is less effective when the lateral lobes are affected and is more applicable to orificial than to peripheral hypertrophy. Genito-urinary infection is not a contra-indication, unless very pronounced. Age is also not a contra-indication. The technique is described. [M. O.]

2.—Some of the statements made at the recent Tuberculosis Conference in Berlin are reported by de Lavarenne. [M. O.]

3.—Guinard, Ravaut and Aubourg give in detail their technique for performing rachicocainization. They have prepared a new solution of cocaine in sodium chloride and distilled water, and introduced this after removing an equal quantity of the cerebrospinal fluid. Their method is well explained by diagrams. Excellent results have followed using this solution. [M. O.]

November 8, 1902. (Volume II, No. 90.)

1. The Leukocytes in the Infectious Diseases.

FERNAND BEZANCON and MARCEL LABBE.

2. The Scientific Work of the International Tuberculosis Congress.: E. de LAVARENNE.

1.—Bezancon and Labbé found hyperleukocytosis in most infectious diseases, generally polymorphonuclear, sometimes mononuclear. Polymorphonuclear hyperleukocytosis was noted in saprophytic affections, supuration, erysipelas, pneumonia, diphtheria, gonorrhea and scarlet fever. Mononuclear hyperleukocytosis was noted in specific diseases, mumps, pertussis, syphilis and tuberculosis; with abnormal leukocytes in variola, varicella, etc. In typhoid fever, typhus fever and malaria, leukopenia exists, with relative mononuclear leukocytosis. The leukocytosis curve generally runs parallel with the disease. The exact leukocytic formula varies in each disease. Leukopenia is a grave sign, showing insufficient reaction of the hematopoietic powers; excessive hyperleukocytosis is also serious, showing intensity of infection. When rapid reaction to the infection occurs, polymorphonuclear leukocytosis is the result. When this is slower, mononuclear leukocytosis follows. The infectious diseases with mononuclear leukocytosis leave permanent immunity behind; the others but a transitory immunity.

[M. O.]

- 2.—The remaining articles read and discussed at the recent Tuberculosis Congress in Berlin are reported. [M. O.]

November 12, 1902. (Volume II, No. 91.)

1. The History of Medicine. DEJERINE.

1.—In his opening lecture in the course on medical history in the Paris Medical School, Professor Déjérine reviewed the teaching of medical history in France, from the end of the eighteenth century, when it was begun, up to the present time. Going back to the medicine of the ancient Egyptians, he followed medical history up to this twentieth century, mentioning the great men of the different times. [M. O.]

November 15, 1902. (Volume II, No. 92.)

1. The Opening Lecture in Dermatology. GAUCHER.

2. Metal Screws in the Treatment of Pseudarthroses.

C. DUJARRIER.

1.—In his first lecture, Professor Gaucher paid tribute to his predecessor, Dr. Fournier, the first professor of dermatology in the Paris Medical School. He reviewed the teaching of skin diseases in the St. Louis Hospital, citing the work of Alibert, Bielt, Lugol, Cazenave, Gilbert, Devergie, Bazin, Hardy, Hillairet, Cullerier and Ricord. [M. O.]

2.—Dujarrier describes in detail the technique of screwing in the treatment of pseudarthroses, reporting a successful case-history in full. He describes the screws, gimlet, chisel and hammer necessary, and shows a skiagraph of his patient. [M. O.]

November 19, 1902. (Volume II, No. 93.)

1. The Bacteriology of Cystitis. H. HARTMANN

and H. ROGER.

2. Intratracheal Injections of Mercury in Syphilis.

PAUL CARNOT.

1.—Hartmann and Roger examined the urine from 6 patients with cystitis and found anaerobic bacteria in all but one. Micrococci were found in all, generally staphylococci or streptococci. They believe that further researches are necessary to discover the significance of the presence of anaerobic bacteria in cystitis. [M. O.]

2.—Carnot gives in detail the technique of intratracheal injections of mercury. He uses an oily solution of mercuric iodide and injects it directly into the trachea. These injections are exceptionally well tolerated by patients with syphilis. They cause no pain, are simply and easily given, do not upset the stomach, are aseptic, and do not give the faintest suggestion that the patient is taking antisyphilitic treatment. It is preferable to giving mercury by the mouth, or by subcutaneous, intramuscular or intravascular injections. [M. O.]

JOURNAL DES PRATICIENS.

November 15, 1902. (16me. Année, No. 46.)

1. The External Treatment of Pruritus. LEREDDE.
2. The "Sign of the Neck" in Chloroformization.
RAYMOND BONNEAU.
3. The Preparations of Valerian. E. A.
4. Tabetic Arthropathy of the Hip. FERNAND WIDAL.

1.—Will be abstracted when concluded.

2.—When under chloroform anesthesia the muscles may show contracture, contraction tonic or flaccidity. The contracture is noted with the stage of excitement, and the others gradually follow as the effect wears off. This constitutes what Bonneau calls the **sign of the neck**, in the neck muscles. He advises keeping the neck muscles at the point at which they show tonic. They remain stiff, neither tensely contracted nor flaccid, as can be noted by gently moving the head laterally, watching the respiration, cornea, face and pupil at the same time. When the muscles of the neck keep their tonic, all sense of pain is abolished and muscular contraction has passed. By giving the chloroform drop by drop, at regular intervals, the patient is kept just under the influence, and but little of the anesthetic is used. [M. O.]

3.—Valerian may be given as a powder, infusion, extract, tincture or syrup and as valerianate of ammonium, etc. The syrup is the best preparation, since it contains most of the essential oil. [M. O.]

4.—The diagnosis of tabetic arthropathy of the hip is difficult. Locally it may resemble sarcoma of the femur. But the other symptoms of locomotor ataxia should settle the diagnosis, when they occur. For the condition may be pre-ataxic. The case-history of a woman with posttyphoid arthritis of the knee and clavicular extosis follows. [M. O.]

October 25, 1902. (16me. Année, No. 43.)

1. A Case of Gummatous Pelvic Cellulitis.
ALFRED FOURNIER.
2. Resins in Diseases of the Chest. LIEGEOIS.
3. Uterine Hemorrhage with Retention of the Placenta.
E. DABOUT.

1.—Fournier reports an interesting case of **gummatous cellulitis of the pelvis** in a man of 34, hereditarily syphilitic. The condition found on examination suggested a malignant tumor of the small pelvis. While the patient showed no signs of hereditary syphilis, his brother did. Upon mixed treatment the conditions disappeared, settling the diagnosis. Of 15 children but 2 beside the patient survived infancy. Many details are given. [M. O.]

2.—Liégeois discusses the value of **ammoniacum, myrrh and asafetida** in bronchitis. He considers all three drugs of great worth in the treatment of catarrhal conditions. [M. O.]

3.—Dabout reports 2 cases of **uterine hemorrhage from retention of the placenta**, in one case with impacted placenta. Hot water fails to stop the hemorrhage in some cases; then the placenta should be delivered at once. Finally hot water, even if it does not stop the hemorrhage, assists uterine contraction. Forcible traction of the cord is never to be done under any circumstances. [M. O.]

Hygiene in the East Indies.—In several numbers of the *Prager medicinische Wochenschrift* (June 26, July 10 and 24, 1902), Breitenstein, who spent 21 years in the tropics, has reviewed the subject of hygiene in the tropics. The highest temperature noted in Java was 104° F.; the lowest was 59° F. Humidity ranged from 79% to 83%. During the rainy season, even though mosquitoes were absent, malaria occurred, especially around the rice-fields. Though filters are in general use, it seems probable that malaria spreads in the drinking water, which is derived from springs or rivers. Statistics show that Europeans suffer but little more from the contagious diseases than do the natives. Time to become acclimated, a good drinking water, bathing, correct clothing, no alcohol and sanitary habitations are necessary to health in the tropics. [M. O.]

Society Report.

MANHATTAN DERMATOLOGICAL SOCIETY.

Meeting held December 5, Dr. W. S. Gottheil in the chair.

Dr. E. Pisko presented a woman of 40, with **xanthoma tuberosum diabeticorum**, of 6 years' duration. The eruption disappeared spontaneously 18 months ago, and the skin remained clear for 8 months. Then it reappeared, with glycosuria. The lesions were papular, mammiform and tumor-like, and locomotion was painful. She was 3 months pregnant, and the urine also showed traces of albumin. Dr. Gottheil said the mammiform arrangement was exceedingly rare. He thought xanthoma palpebrarum was usually nondiabetic. Dr. F. Leviser recognized 3 varieties, xanthoma palpebrarum, tuberosum diabeticorum and tuberosum nondiabeticorum, the last being very rare. The treatment was that of diabetes.

Dr. I. P. Oberndorfer presented a case for diagnosis, a man with a chancre 6 weeks ago, that had been cauterized. At that time he also had gonorrhea. The ulcer showed induration, without inguinal adenitis, and his body was covered with a macular eruption. Dr. Pisko thought it parchment chancre and roseola. Dr. Weiss favors the diagnosis of syphilis. Dr. Abrahams excluded syphilis. Dr. Bleiman would treat him for syphilis. Drs. Gottheil and Sobel also regard the case as specific. Dr. Cocks believed it to be dermatitis medicamentosa.

Dr. W. S. Gottheil showed a woman of 60, with a harsh, dry, glistening skin of the lower right limb, extending from the knee to the ankle. The lower half of the thigh was hyperemic, and the margins of the urea were well defined. The veins were prominent and varicose. The disease had lasted 18 years. He termed it **atrophia propria cutis**. Drs. Weiss and Abrahams agreed in the diagnosis: Drs. Pisko and Bleiman stated that such conditions were often seen in cases of long-standing varix.

Dr. F. Leviser presented a case of **lupus vulgaris faciei**, treated by electrolysis. The Finsen light was applied 55 times without benefit. Dr. Cocks uses the X-ray for such cases. Dr. Abrahams suggested urea internally. Dr. Gottheil attributes the failure of the Finsen therapy to faulty technique.

The following officers were elected for 1903: Dr. Ludwig Weiss, president; Dr. Jacob Sobel, vice president, and Dr. Asher Bleiman, secretary and treasurer.

IL POLICLINICO.

Year IX, fasc. 2. (Sezione Pratica.)

November 8, 1902.

1. Echinococcus of the Lung and Its Treatment With Sublimite. S. CONA.

1.—Cona reports the case of a patient who had been unsuccessfully treated for tuberculosis and syphilis of the lung, which was finally diagnosed as echinococcus cyst; a cure being effected through aspiration of the cyst and subcutaneous injection, into the surrounding tissue, of corrosive sublimate combined with morphine in the following proportions: Corrosive sublimate 1, morphine 0.50, distilled water, 100. This treatment brought about improvement in all the symptoms, though at the end of 10 days suspension of the injections became necessary, owing to the development of mercurial stomatitis. A complete cure was effected by this method, combined with tonic treatment within a period of 2 months; the patient continued in good health when last seen, after a lapse of one year. [R. L. F.]

Modern Instruction in Internal Pathology.—In *La Médecine Moderne* (August 20, 1902), Capitan reviews in detail the new book on modern instruction in internal pathology, recently published by Debove and Sallard. To show the concise nature of the articles in this excellent little book, Capitan quotes the chapters on acute meningitis, aphasia, laryngeal disturbances of nervous origin, etiology and symptomatology of nephritis, and the examination of the blood. These extracts are short yet complete, thoroughly up to date, and quite modern in treatment, furnishing interesting reading. [M. O.]

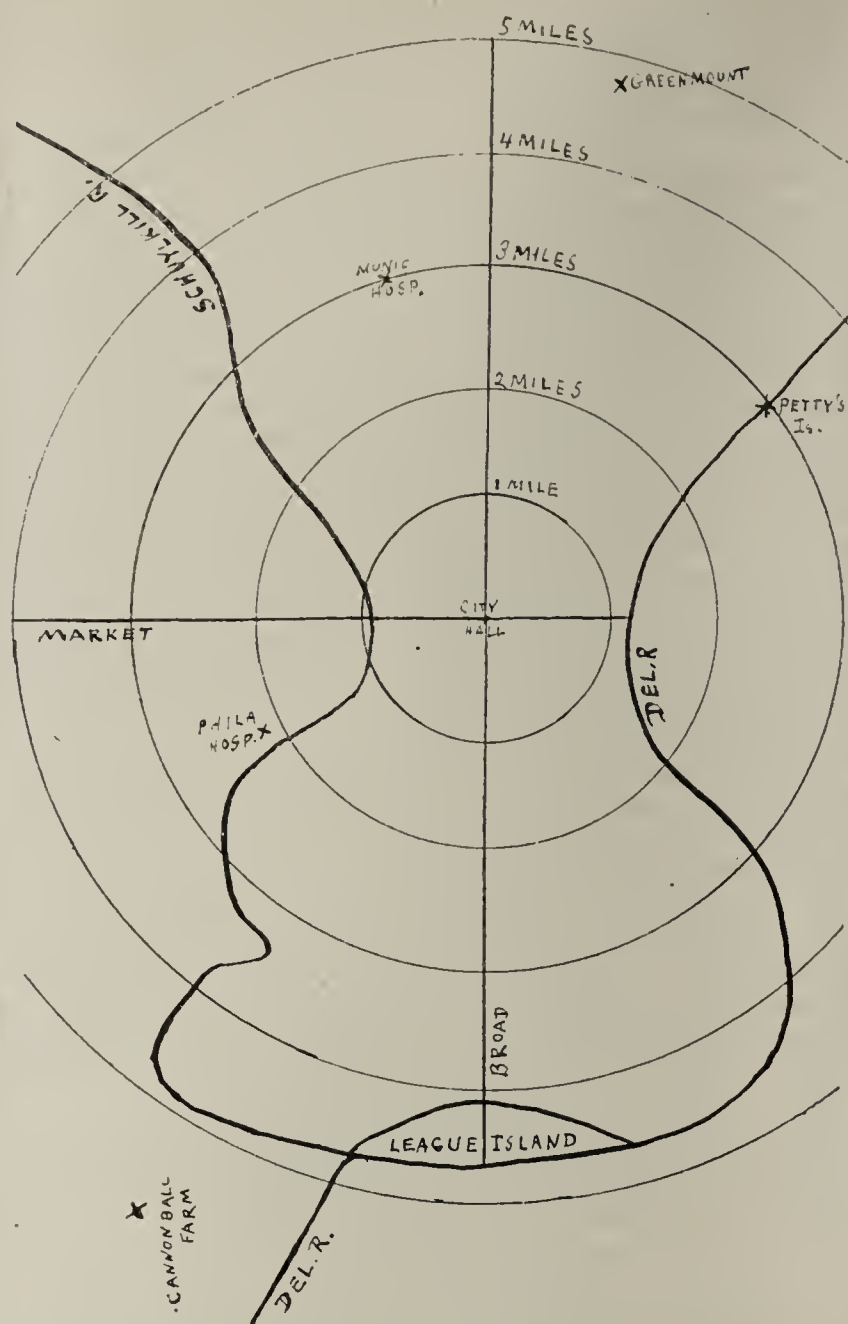
Special Articles.

THE PROPOSED SITES FOR THE MUNICIPAL
HOSPITAL AND ALMSHOUSE.

Philadelphia authorities are having considerable trouble in securing a site for the hospital for contagious diseases. There is no lack of suitable places, but the residents of each ward rise in wrath as soon as a proposition is made to locate the hospital within the bounds thereof. As the ward boundaries are not determined by geographical or demographical factors, it sometimes happens that the demonstration of opposition has a bizarre feature, inasmuch as residents far removed from the proposed site may join in objection, while others much nearer take no part because they are not in the ward concerned. Thus, in the dispute as to the eligibility of the site at Greenmount, the residents of the Thirty-third ward, in which the plot is located, are manifesting much opposition, yet many of them are much further from the locality than some of the residents of the adjoining wards. However, proximity in a case of this kind is not determined wholly by setting off distances upon the map; it is dependent upon the lines of intercommunication and the probability of development of residences around the site. It seems almost that progress of sanitary knowledge has increased rather than diminished the fear of contagious diseases. It is true that the public should be kept in mind of the dangers of contagious diseases and the means of restricting them, but an unreasonable fear which leads to the denial of proper accommodations for the sick is merely a form of superstition. Under the system of vaccination, smallpox has become one of the most easily preventable diseases, yet the general fear of it seems to be on the increase. Prior to the Civil War the hospital for contagious diseases was located near Twentieth street and Fairmount avenue, near the built-up section, and was not an object of special dread.

The present efforts of the Philadelphia authorities involve several departures from the existing system, such as: Separation of the almshouse from the general hospital, erection of new buildings for the almshouse and contagious-disease hospital and, presumably, the abandonment and sale of the present Municipal Hospital site. The requirements of greatest importance for such buildings are: Accessibility, facilities for drainage and sewerage, sufficient area for reasonable isolation and extension of plant to meet the needs of increasing population, minimum interference with the extension of residence sites, freedom from annoying manufacturing operations. The cost of the site is not a feature of sanitary engineering, and under the methods of American municipal government is outside of professional and general public control.

The annexed plan, drawn to a scale of about three-quarters of an inch to the mile, shows the locations of several of the sites now in question, and by means of the lines of the two principal streets and the course of the two rivers the relative accessibility can be partly determined. Such a map does not,



however, give the topography, and fails, therefore, to exhibit the elevation, character of roads, nature of soil and probable direction of extension of population. These matters may be, in some respects, furnished by detailed description.

Petty's Island.

By examining the map some interesting points will be observed. The Petty's Island site, which was much discussed some months ago, seems to be about as far from the City Hall as the present Municipal Hospital. In reality the island site is more accessible during a large part of the year, on account of the facility for water transportation, and also because the population east of Broad street, between Allegheny avenue on the north and Snyder avenue on the south, furnishes a considerable part of the sick and indigent of the city. During the worst part of the winter the accumulation of ice in the river will interfere with transportation, but this can be overcome to a great extent by assistance of the iceboat or by the special construction of an ambulance tug. It must not be forgotten that, when ice is heavy in the river, the roads and streets of the city are apt to be in bad condition for rapid and comfortable transportation of the sick. With the jurisdiction question as to Petty's Island (it belongs to New Jersey) we have here no concern, but a strong objection was made to it on account of the character of the soil, its low level and the

possibility of infection extending through the water or air. These objections are overrated. Sites on ground of the same nature as this, and quite as low, have been utilized in many parts of the world. In a brief paper in the *Philadelphia Medical Journal*, some months ago, in discussing the proposed Fortieth ward site, we referred to Holland as an example of the fact that the highest human efficiency is consistent with residence below the water-line. The conditions at Petty's Island can be entirely overcome by engineering methods. The ground level can be raised, secure foundations laid, and there is no more likelihood of contagion extending from that than from any other location. The island site offers, indeed, invaluable advantages in isolation, since it is much easier to prevent unauthorized communication than would be the case with a land site. There is also no possibility of interfering with the extension of building operations. The area is sufficient for the requirements of the city for many years. The location in the harbor would render the hospital available for certain emergencies among shipping.

The Cannon-Ball Farm.

The site at the so-called Cannon-Ball Farm has been opposed for similar reasons, namely, that it is low and marshy. The features of this site have been discussed in the paper mentioned above, and the same statement would apply as has just been given. The site has also been commended on account of its accessibility by water, but it will be noted on examination of the map that a long river journey would be required from almost all parts of the city, and that this journey will be either along the narrow and winding lower Schuylkill or around the so-called Horseshoe bend in the Delaware. Both these routes are much more liable to be choked with ice than that from the city front to Petty's Island. The Horseshoe bend is only too well known to the local shipping interests as a difficult point in ice time. Powerful steamships are often blocked there, for hours and completely isolated in the ice-pack. The Cannon-Ball Farm has, however, the advantage that there is land approach, but it is long, and, for a large part of the populated district, the conveyance would have to cross the Schuylkill, for which only a few bridges are available, and these mostly drawbridges at which there is liable to be long delay.

Greenmount.

The Greenmount site, located in a part of the city which is still largely wild and little traveled, seems to be very satisfactory in several respects. It is bounded on the north and south by large cemeteries, and on the west by a comparatively little-used railroad, the track of which is well below grade, so that the approach will offer no danger. The cemeteries are likely to prevent any building operations on the north and south for many years. The site is high and easily drained. A creek passes through its northern boundary, by which all sewage can be conducted into Frankford creek and thence into the Delaware. No alarm at the pollution of the water of Frankford creek need be felt for a moment, for it is now a foul sewer receiving the most objection-

able materials. The area of the site is sufficient, and while it is well isolated, as noted above, on account of the surroundings, yet it is accessible from the main portion of the city with ease, although the journey is long. From all but the most eastern portions of the city, Broad street would be the line of approach, and this is asphalted up to the connection with Rising Sun lane, which has lately been opened, widened for a considerable distance and could be easily completed. The ambulance could also pass along Broad street to Bristol street, now open but not paved. The railroad above mentioned, part of the Newtown road, now but little used, runs along the line of Second street, which could easily be opened above grade and form an approach from the eastern section.

The location of the general hospital and the home for the indigent and insane will probably not cause excitement. The plan of separating the poorhouse from the other departments is commendable from all points of view, and it is to be hoped that the medical staff, which has been for eighteen years endeavoring to secure this result, will be soon successful.

More Hospitals Than One.

While the relocation and extension of the poorhouse and city hospitals are under consideration by the municipal authorities, with the assistance of the medical officers concerned, it may be well for them to examine into the practicability and advantage of some further changes which have as yet not been much discussed. The first is the advisability of establishing more than one hospital for contagious diseases. This may, of course, multiply the difficulties of selection of site, but the power of the municipality fully exerted will be sufficient to overcome this. The city of Philadelphia is now quite too large to be satisfactorily equipped with one such hospital. It is not merely a question of total population; the distribution of the population is to be taken into account. In surface area Philadelphia is one of the largest, if not the largest, city in the world. It is not symmetrically developed. One line of dense population stretches to the northwestward along the east bank of the Schuylkill, another northeastward along the Delaware. Population is extending southward and westward and will, on the completion of some municipal improvements in the flat land known as the Neck, be strongly influenced in those directions. At least two hospitals for contagious diseases should be located within the city bounds, one of these might be at Greenmount, the other at the Cannon-Ball Farm. Market street would be a convenient dividing line for territory east of the Schuylkill, and West Philadelphia might be entirely, except, perhaps, some of its most northern portions, assigned to the southern site. It would not be unwise, however, to provide a third site in the remote part of West Philadelphia for much of that section.

Another important reform is that of better classification in the contagious diseases. The term is a broad one, yet is in the public mind largely referable to but one disease, smallpox, of all contagious diseases most dreaded by the bulk of the community.

The opposition to the selection of a site for the contagious-disease hospital grows largely from the custom of terming it the "smallpox hospital" or "pest-house." It is probable that a hospital for other contagious diseases, such as diphtheria and scarlet fever, would excite but little notice. An evidence of this may be found in the difficulty which sanitary authorities find in preventing attendance at funerals of children dead of either of these diseases. Not only would it be good municipal policy to establish a hospital for smallpox only, but it is in the interests of scientific handling of contagious affections.

Summing up the above points, it may be said that the site at Greenmount is well adapted for hospital purposes. The opposition of the living residents of the ward is not reasonable. They are too far away to be injured either in health or pocket by the hospital; the immediate neighbors will not complain any more than did the ancestors at Chesney Wold object to receiving the errant Lady Dedlock. The Cannon-Ball Farm is also available, but the engineering difficulties should be thoroughly worked out before the site is acquired, and the improvements should not be limited to the immediate site, but a general revision of the levels and drainage of the whole district should be undertaken. This is wholly within the power and capability of the municipality. The city of Philadelphia enjoys the advantage of having in its employ one of the most competent and progressive civil engineers in the country.

The separation of the poorhouse from the other departments, now included at Blockley, is required by public policy and medical science. So, also, it will be well to separate entirely smallpox from other contagious diseases.

PROFESSOR LORENZ'S CLINIC.

On Thursday, December 11, Professor Adolf Lorenz demonstrated his method of reducing congenital dislocation of the hip in the clinic of the Jefferson Medical College Hospital, before a large and representative audience of surgeons and medical men. Tickets of admission had been sent to the prominent professional men of this city and to a large number throughout the State. The senior class of the college was also entitled to admission, and long before the hour appointed the amphitheater was well filled. Twenty patients had been selected from the numerous applicants, and from this number Dr. Lorenz chose five as being best suited for his method of treatment. The ages of these patients ranged from 2 to 9 years.

Shortly after 1 o'clock Dr. H. Augustus Wilson, followed by Drs. Lorenz, Müller and Ashley, his two assistants, entered the amphitheater. Dr. Wilson spoke of Prof. Lorenz's career as a surgeon, how, at about the time he was to receive his professorship in Vienna, a position he had striven for for years, he was compelled to give up surgical work, owing to a carbolic acid eczema he had developed, carbolic acid being extensively used at that time as a disinfectant. It was then that his attention was called to the bloodless method of reducing congenital dislocation of the hip, and, after many years of patient and arduous toil, his efforts were

crowned with a success never before attained in the treatment of this condition. In closing Dr. Wilson said the results obtained in the treatment of this condition in America were 30% of cures, and Lorenz, by his method, reports 50%, a gain of 20% over the method employed in this country. Dr. Lorenz and his assistants, Dr. Müller and Dr. Ashley, of New York City, a former student, were introduced by Dr. Wilson. Dr. Lorenz referred to his method as the functional or weight-bearing method, which consists in bringing the head of the femur down opposite the acetabulum by extension and counter-extension, then throwing the head in by performing extreme abduction and external rotation. Before it is possible to bring the head down it is necessary to overcome the resistance of the muscles around the hip-joint. The resistance of the anterior muscles, which is considerable, is overcome by hyperextension of the thigh; the posterior, which is less, is overcome by extreme flexion of the thigh on the abdomen, and of the abductors by abduction. In very young children little difficulty will be encountered in bringing the head of the femur down opposite the acetabulum, the difficulty increasing with the age. The oldest patient he has operated on by this method was 23 years of age. If the acetabulum is of normal shape and size, all is accomplished when the head of the femur is placed therein, but in the great majority of the cases the head immediately slips out of the cavity, owing to the disproportion in size. In order to retain the head of the femur in its normal position it is necessary to place the leg in extreme abduction by bandaging. The parts from the knee to the iliac crest, after having been covered by a pair of linen drawers, through the leg of which runs a piece of gauze or flannel for the purpose of facilitating the cleansing of the parts during the time the bandage is in place, are thoroughly covered with roller cotton and a roller bandage applied from the knee to umbilicus, and coils running from the iliac crest of the sound side to the knee of the opposite side, thus binding the head of the thigh-bone in the acetabular cavity, rolls also enclosing the thigh and running around the pelvis. Plaster of Paris is then applied, the rolls being precisely the same as already mentioned, the edges neatly trimmed and necessary openings made. The bandage is kept in place for from 6 to 8 months, better too long than too short a time. The patient is encouraged to use the leg, walking being possible, and passive motions instituted. In this way the head of the femur accommodates itself to the cavity and is made to make a place for itself.

The first case was that of a girl, 2½ years of age, who suffered from a bilateral congenital dislocation. Considerable force was required in overcoming the muscular resistance and bringing the femoral head opposite the acetabular cavity, which was accomplished as already described. The next step, that of placing the head in the acetabulum, was readily accomplished, requiring little force. After reducing the dislocation, Dr. Lorenz demonstrated the ease with which it would slip out of place. As long as the leg was in the position of abduction and the

thigh extended, the parts were in their normal position, but upon extending the leg the head immediately slipped out. To overcome this, the leg was placed in extreme abduction and firmly bandaged. The operation consumed about 20 minutes. By placing the feet of the child upon the floor he demonstrated how walking was possible, also how the child would sit.

The second case, that of a boy, about 4 years of age, with single congenital dislocation, was reduced, as the first, with little difficulty; also a third patient, a girl 9 years of age. Dr. Lorenz had expected some difficulty in this case, she being two years beyond his age limit. It proved the easiest of the four, however, the entire operation not consuming over 15 minutes.

The fourth and last operation was performed upon a girl, 4 years of age, suffering from single congenital dislocation, in whom previously a tenotomy had been performed. Dr. Lorenz experienced great difficulty in reducing this dislocation, which he attributed to the previous tenotomy and to the fact that the capsule was too narrow to permit the head of the femur to enter the acetabular cavity. He pronounced the case one of the most difficult he has ever had. In many of these cases it is necessary to incise the capsule. Dr. Lorenz spent almost an hour in manipulating before his attempts were finally successful, and it required the greatest muscular exertion on the part of Dr. Lorenz and his assistants. When the operation was completed, large ecchymoses were seen on the exterior surface of the upper portion of the thigh. Dr. Lorenz is of the opinion that in this case good results will be obtained, notwithstanding the narrowness of the capsule, providing the patient has proper treatment during the time the bandage is on.

This brought to a close the clinic of Professor Lorenz, one which was looked forward to with great interest, and the result of which was very satisfactory. The condition of the patients upon the removal of the bandages will be awaited with considerable interest.

Hemichorea Without Hemiplegia, in an Old Man with Bright's Disease.—Le Gendre (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 24, 1902) reports the case of a man of 74, with choreic movements of the entire left side of his body. There had never been any hemiplegia, though he showed symptoms of probable uremia. Albuminuria disappeared, his heart became regular, and his brain cleared, yet the hemichorea persisted. Nor was he hysterical. This hemichorea may have been due to cerebral anemia, secondary to the Bright's disease.

[M. O.]

The Periodicity of Hemicrania in the Male.—In women the monthly periodicity of headache and other nervous symptoms is dependent upon menstruation. That a rhythm exists in reference to the periodicity of hemicrania in the male is noted by Harris (*Edinburgh Medical Journal*, July, 1902), who has observed that attacks, in a man of 35, suffering about 25 years, occurred on Tuesdays in their greatest intensity. Out of 93 attacks in 3 years, 30 were on Tuesdays and but 2 on Sundays. The attacks began at 2 o'clock P. M. and lasted till 9 or 12 the same night. Harris' detailed and interesting observations show a regular periodicity in the occurrence of hemicrania in the male.

[M. O.]

Original Articles.

A CASE OF ADIPOSIS DOLOROSA, WITH INVOLVEMENT OF THE JOINTS.

By F. X. DERCUM, M. D.,
of Philadelphia.

Professor of Nervous Diseases in Jefferson Medical College.

The following case, because of the very remarkable condition of the joints, deserves to be placed on record:

A. B.; aged 61; white, widow. Family History:—Father died of typhoid fever at 35; mother died of typhoid fever at 30. One sister is living and in fair health. Several sisters and brothers died in infancy. One brother died at forty of phthisis. No other member of the family has been afflicted with any nervous disorder.

Personal History:—Patient was delicate when a child, had the ordinary diseases of childhood, menstruated at 13. At 18 she suffered from nervous prostration and was so weak that she could not walk for three months, but subsequently made a good recovery. One year later she had another attack, not quite as severe as the first. She married at 22, has had 5 children and 4 miscarriages. All of the children, except one, died in infancy or early childhood. She has always suffered a great deal from backache. Has had no other illness previous to the onset of the present disease, which began about 10 years ago. It first manifested itself by a weakness of the legs. She was able to walk, although with some difficulty. She found that it required more effort to go up and downstairs. Her back also became very weak, and after a while she could not rise from a sitting position without assistance. Actual paralysis does not appear to have been present at any time. Some 6 or 8 months after the beginning of the weakness in the legs, a painful lump of fat made its appearance at the back of the neck and immediately between and above the shoulderblades. Subsequently, another painful mass of fat made its appearance over the left collar bone, and at various times thereafter numerous lumps, more or less diffuse in character, made their appearance on the left arm, on the right arm and, finally, over and about both knees. At the same time that the painful masses of fat made their appearance about the knees, the patient began to suffer from swelling in the joints. The joints appeared to be "loose," as she expressed it, while motion was attended with very considerable pain. These symptoms reached a maximum amount of intensity about 5 years ago. Marked stiffness of the knees and of other joints was gradually established and became permanent. Little or no change has been noted within recent years, save that in some of the fatty masses the pain has become less acute.

Present Condition:—Is unable to stand; is unable fully to extend the legs at the knees; cannot fully extend the thighs at the hips. Attempts at free movements of the legs at the knees give rise to very great pain. Marked impairment of motion is also noted. Pain is also induced in the hip joint on free movement. No pain is induced in the ankles. The arms can be moved in all directions, but motion at the shoulder and elbow, especially in the left arm, is attended with pain. The patient complains also of pain in the elbow joints upon free movement. The knee jerks cannot be elicited. There is no ankle clonus. The plantar reflex is preserved upon both sides and is normal. There are nowhere any sensory losses. The sphincters are normal. There is a lipoma on the back of the neck which is painful to pressure. There are painful supraclavicular lipomata upon either side. There is a diffuse deposit of fat on the back, which is especially heaped up over the shoulderblades. There are also very extensive and diffuse deposits over the abdomen, the abdomen being enormous. The arms contain a large diffuse deposit of fat, most marked in the upper arms and much less marked over the forearms. In both arms the deposit of fat contains numerous lumps which are doubtless independent lipomata. They are variable in size. The thighs and buttocks are also somewhat enlarged by diffuse fatty deposit. Especially large deposits have formed over both knees. Here again large nodules, which are painful to pressure, are present. The face and hands



are free from all deposits, as are also the feet. The proximal phalangeal joints appear to be somewhat thickened. There is no ulnar deflection of the fingers. There is no paralysis anywhere, nor any paresis. There is marked muscular asthenia, which is especially evident in the legs. The face is of a high color, the cheeks and forehead being markedly flushed. The palmar surfaces of the hands also present a bright pinkish flush which, the patient states, is present all of the time. A similar flush is present upon the soles of the feet, though less marked. The patient says that the flush upon the soles was formerly as marked as the flushing of the palmar surfaces, but that it has gradually subsided and that the skin has gradually become pigmented. The fatty deposits are everywhere painful to pressure, more so in some situations than in others. The fatty masses at the back of the neck, over the clavicles and back of the trunk are decidedly painful to pressure. Tenderness is also present over both arms and forearms, most marked in the separate lipomatous masses. The pain is most marked in the deposits upon the left arm and left leg; it is especially marked in a mass on the inner aspect of the left knee. The patient is garrulous and mentally somewhat feeble. It is difficult to elicit from her a connected story of her case. Her memory is evidently impaired. There is present, beyond a doubt, a mild dementia. There are no sensory losses, the patient responding promptly to touch, pain and temperature. Localization is normal as is also stereognosis. Examinations of the urine and the blood, which are herewith appended, reveal nothing of importance.

Urine:—Turbid, straw-colored, 1020, feebly acid, no albumin, no sugar, urea 2.4%; microscopical examination shows triple phosphates; amorphous urates and squamous epithelial cells.

Blood Count:—Red bloodcorpuscles, 5,960,000; white bloodcorpuscles, 5,400; hemoglobin, 79%; color index, 60. The condition of the joints in this case was especially interesting, and it was, therefore, made the subject of a detailed study in which I had the assistance of Dr. John H. Gibbon. An analysis of the various bursæ, tendons and joints revealed the following facts:

Bursæ:—Right olecranon and patellar bursæ showed numerous small hard vegetations. The bursæ of the tendo Achillis and of the patellar tendon are apparently free.

None of the bursæ contain fluid to any extent, and those of the right side appear normal.

Tendons:—There is no distension of any of the tendon sheaths, though the quadriceps extensor tendons and patellar tendons are much thickened, and apparently contain outgrowths similar to those felt in the bursæ.

Joints:—The temporomaxillary articulations show no limitation of motion, but creaking is evident in both. The sternoclavicular joints appear normal in every way. The spine shows no abnormality, but there seems to be some tenderness over the spines of the lumbar vertebræ. Creaking is distinctly felt in both shoulder joints, although much more marked in the left. Motion of the right shoulder joint is practically normal; that of the left is considerably limited, particularly extension. Examination of the hip joints is difficult because of the patient's size. Some tenderness, however, can be elicited over the great trochanters of both femora. This would seem to indicate that the bursæ in these positions are also involved in the general process. Both knee joints show a marked limitation of both flexion and extension, and any attempt to increase these movements produces pain. There is no evidence of any fluid in the joints, and creaking is very marked in both, although more so in the left. The left ankle joint shows some limitation of motion, and creaking is easily developed. The right ankle is little interfered with. The first metatarsophalangeal joints show some limitation of motion, and any attempt to increase it produces pain; creaking is here also elicited.

Bones:—No pathological changes are detected in any part of the bones. Skiagraphs were also made of the joints. These reveal no changes whatever in the bones, but some thickening of the tissues about the joints, especially about the knee joints. These changes are less evident in the skiagraphs of the other joints.

Joint complications in adiposis dolorosa appear to be exceedingly rare, but not unknown. One other instance has been placed upon record. In July, 1901, Renon and Heitz presented a case of "adiposis dolorosa with multiple arthropathies" before the Neurological Society of Paris. In their case there were, in addition to painful fatty masses upon various portions of the arms and legs, marked pain, creaking and limitation of movement in numerous joints. A skiagraph of the left knee failed, as in my own case, to reveal any alteration of the articular surface. The knee-cap, however, was a little thickened, and its structure offered a somewhat mottled appearance. The synovial membranes, however, gave rise to a slightly opaque shadow, which was especially evident at the cul-de-sac under the quadriceps tendon. This shadow, Infroit, who made the skiagraph, regards as due to fatty thickening of the synovial membrane.

The examination of the joints in my own case justifies the conclusion that there was present a marked thickening of the synovial membranes and possibly of other structures in the neighborhood of the joints. There was a marked tendency to the formation of fringes and rice bodies. That this thickening is due, in part at least, to fatty infiltration and that this fat is painful, just as is the fat in the lipomata on the surface of the body, affords the most reasonable explanation of the condition observed. It is probable also that an actual chronic synovitis is present. Rheumatism does not afford an adequate explanation of the conditions found, while rheumatoid arthritis is excluded by the absence of changes in the bones and cartilages.

BRONCHITIS AND BRONCHOPNEUMONIA FROM INHALATION OF IRRITANTS.

By J. N. HALL, M. D.,

of Denver, Colorado.

In the past few years I have seen one or more instances of the above mentioned conditions arise from six different varieties of irritants, and I, herewith, quote a typical case of each class. This subject is so lightly touched upon in the text-books that its study at this time will, I believe, prove profitable.

The six cases were caused respectively by chlorine gas, sulphurous acid gas, formaldehyde, kerosene, smoke and smoke containing some unknown acid fumes. I have separated them, on the one hand, from the ordinary inhalation pneumonias, and, on the other, from suffocation by deadly gases.

Case 1. A robust, young man, employed in the bleaching department of a paper mill. The vat in which bleaching powder was used leaked and permitted the escape of chlorine gas in such quantities as to be very disagreeable, but not absolutely to prevent work near it. The patient remained at work for the greater part of the day, in spite of an irritating cough. I saw him the following day. His chief complaint was of excessive soreness in the abdomen caused by the incessant coughing. The skin was pale, cool and clammy, the pulse-rate moderately elevated, the respirations somewhat increased in frequency. The cough was frequent, dry and painful. Examination of the chest showed abundant sonorous and sibilant rales, but no evidences of moisture in the finer bronchial tubes. Under the use of an opiate and ordinary expectorant remedies the cough became looser, less frequent and less painful. Patient made a rapid recovery.

In this patient it is evident that a simple coarse bronchitis resulted from the chemical irritant which he inhaled. A greater concentration of the chlorine gas would probably have resulted in an involvement of the finer tubes and the air-cells, as in case 3, which we shall shortly study.

Case 2. Mr. E. attempted to fumigate his house after the presence of scarlet fever, by burning sulphur freely. He remained as long as possible to see the fire well started, and thus inhaled much of the sulphurous acid gas liberated. Severe cough resulted, with pain through the breast. After a few hours he re-entered the house before it had been ventilated and so received a second exposure.

The description of the condition, the therapy and the result, as mentioned in the last case, apply practically to this one. It was evident that the larger tubes only were involved.

Sulphurous acid gas does not especially tend to the production of bronchopneumonia. This is probably due, as in the case of chlorine gas, to its pungency, compelling a retreat, or, as in some cases, it rapidly causes death from suffocation. In an instance quoted to me by Dr. F. H. McNaught, of Denver, a baby was exposed, in an attempt at fumigation, to the fumes of burning sulphur and died in a few minutes from suffocation. The fumes, however, were not strong enough to produce any serious result upon the adult members of the family. A most careful autopsy, by Dr. McNaught, revealed no pathological condition beside a slight edema of the glottis. I believe his theory of the cause of death was correct, viz., that rapid edema with spasm of the vocal cords produced suffocation. This possible danger of sulphur fumigation should be recognized.

Case 3. A young physician, acting as fumigator for the

Denver Health office, inhaled formaldehyde gas which he was using. He noticed no serious effects beyond an irritative cough and some soreness in the chest, but the trouble became worse daily for a week. When I examined him he had severe, painful and frequent cough, without much expectoration or dyspnea; no constitutional signs of note. In the chest were found many sonorous and sibilant rales, with a few fine moist rales. Resonance was not materially impaired. The soreness under the sternum was much greater than in ordinary bronchitis, as we have noted in case 1. I look upon this as being fairly characteristic of the class of cases we are studying. It was obvious that here we had a severe coarse bronchitis with involvement of the finer tubes and probably, to a slight extent, the alveoli. A step further would have given us a bronchopneumonia with more impairment of resonance. He made a slow recovery under the use of sedatives and expectorants, but caused me much anxiety for a few days.

Case 4. A girl, 20 months old, seen with Drs. Moore, Simon and Fitzhugh. She had picked up a fruit-can containing kerosene, and attempted to drink it. At the critical moment the mother saw her, seized her arm and screamed. The baby, apparently fearful of not getting the coveted contents of the can, raised it suddenly and swallowed, choking a little as it went down. She became rapidly ill, in spite of an emetic administered by the nearest physician, and an enema, which smelled of kerosene as it came away. Dr. Moore thought that perhaps a dram had been swallowed, but we all believed that the serious effects came from a minute quantity inhaled. It is well known that mothers in the lower classes frequently give a half teaspoonful of coal-oil as an expectorant, and certainly without serious results. I have seen a moderate enteritis follow a teaspoonful dose given by the mother, but I regard small doses as of little moment, for I have frequently seen cases of bronchitis in which the mothers were sure such doses had done good, and I certainly saw no harmful effects. The child rapidly developed a temperature running up to 104°, while the pulse in a few hours could scarcely be counted. Dr. Simon reported the respiratory rate to be 126 per minute. The dyspnea had none of the characteristics of laryngeal obstruction. Inspiration was rapid without crowing sound or much movement of the larynx. Upon auscultation we heard rough, dry, wheezing rales throughout the chest, but many examinations failed to reveal fine moist ones. No dulness appeared at any time. The child became cyanotic and died, in spite of vigorous stimulation, in about 36 hours. It received no benefit from oxygen gas. In this case I believe the lesion was an obstructive one without the usual increase of secretion seen in ordinary bronchitis and bronchopneumonia. We may conceive of a swelling of the lining membrane of the finer tubes through the inhalation of an irritant, when complete blocking might result without liquid exudate that would give rise to moist rales, and when we might have no material decrease in the pulmonary resonance. The marked cyanosis, while the cardiac action was still reasonably good, led us to believe the dyspnea was mechanical and not through toxic nervous influence.

Case 5. A man, 61 years of age, seen with Dr. W. H. Rover, had long suffered from asthma and had marked emphysema. He worked violently to extinguish a fire in the weeds and grass around his home, inhaled much smoke and became overheated. Within a few hours he had violent cough, high fever and great dyspnea. But little expectoration occurred, and when I saw him he presented signs of acute bronchopneumonia, probably accompanied with pulmonary edema. His lungs showed moderate dulness, in spite of the emphysema, with abundant fine moist rales everywhere. He was deeply cyanotic, and the already weakened heart was wholly inadequate to meet the new difficulty, for it had evidently long been struggling to maintain a reasonable compensation. I believe that the smoke irritated an already damaged bronchial mucous membrane, and that the resulting bronchitis extended to the alveoli. This bronchopneumonia was probably complicated by a pulmonary edema from the acute overstrain of the weak heart, the latter brought about by the unusual exertion. So far as I was able to

estimate, the pulmonary inflammation was much more prominent as a factor in the fatal result than the edema.

Case 6. A fireman, seen in consultation with Drs. Miller, Huffman and Perkins, in a fire at the Western Chemical Works had been exposed to smoke, probably containing the fumes of some acid, as it was reported to us by the fire department. He suffered a little at the time, but the next morning was unable to work. In the afternoon dyspnea was severe, so that oxygen was given with prompt benefit. When I saw him he was cyanotic, with rapid pulse and respiration. There was no dulness in the lungs, but loud, wheezing, sonorous rales and many fine ones at the bases. He was in an extremely critical shape for a few days, but finally, under the use of strychnine, oxygen and expectorants, made a partial recovery. In 4 weeks, however, the symptoms again became serious, bronchopneumonia developed, venous thrombosis appeared in one leg, and he died of pulmonary embolism at the end of the fifth week. In this case it is evident that the first result was an acute bronchial inflammation not reaching such proportions as to cause anything more than discomfort for some 24 hours. Soon after that time the smaller bronchi were filled with exudate, as shown by the fine rales. The trouble was still more mechanical than toxic, for great relief was given by the inhalation of oxygen. The damage must have been serious from the start, however, or his improvement would not have been followed by relapse and death. It is more than likely that a secondary bacterial infection occurs in many such cases as the cause of late symptoms of serious nature.

I believe these histories are fairly representative of the general class. Many such cases occur from other irritants. In great conflagrations many people may suffocate, while those less seriously exposed escape with life to develop bronchitis or pneumonia later.

The cases I have quoted have been rather the serious ones of my experience, for I have seen many mild cases from these and other causes giving little physical evidence of the trouble. In a considerable experience with poisoning by illuminating gas and water gas I have not met with as much evidence of subsequent bronchial or pulmonary irritation as I should have expected. These gases must be comparatively nonirritating.

I regret that I cannot give post mortem evidence in place of theory in these cases. Their study, however, leads us to note that many cases of bronchitis which we encounter originate from chemical irritants. These, in the beginning, are generally much more painful than those of the ordinary form. They are likely to have loud, rough, wheezing rales and, in the case of certain chemicals, fine moist ones as well. Bronchopneumonia may easily develop. Death may occur before the lungs are involved, as in the infant mentioned, presumably from edema and spasm of the larynx. Indeed, these two features may probably be present in the bronchial tubes as well as in the larynx in many of these cases. If the substance be too irritating or too toxic, death may ensue very quickly. The cases we see clinically are probably those in which the irritation is sufficiently mild to be borne for some minutes, at least, while the more serious cases are rapidly fatal.

Fumigators and others exposed to chemical fumes should be careful to avoid them, if possible. The severe cases of bronchopneumonia I should judge to be more dangerous than the forms ordinarily seen in connection with infectious diseases in children.

Oxygen theoretically should be especially serviceable. It helped case 6 very much for a time, but did not save life.

It ought to be useful in proportion as the disease is more purely a mechanical obstruction, for I have never seen it of benefit in any case of pulmonary disease in which toxemia was the chief feature. In all of these cases the possibility of relief of laryngeal symptoms by intubation should be borne in mind. In many cases, however, the mechanical impediment in the bronchi from swelling is an insuperable obstacle to recovery.

POLYPI IN THE NASAL ACCESSORY CAVITIES.* WITH SPECIMENS.

By A. R. SOLENBERGER, M. D.,
of Colorado Springs, Col.

During the year there have come to my hands so many cases of nasal polypi of the recurring type that I have thought it opportune to bring the subject once more before the Association, and I do so now in the form of a question: "Why do nasal polypi recur?"

I think the answer may, at least in part, be found in the study of the various pathological conditions of the nasal accessory cavities. Much as has been written on the subject, the question how to create future immunity is still before us. The true pathology of nasal polypi, if understood by the few, seems not yet appreciated by the many.

How can nonrecurrence be best assured? (1) By a minute knowledge of their *general* pathology. (2) A corollary of the first: The ability to make an exact differential diagnosis in each case, determining *what stage* of polypoid degeneration is present. (3) A corollary of (1) and (2): To discover, if possible, the *initial* cause; but more particularly the cause or causes still in progress.

Here we have evidently a large field for research. I can hope to emphasize only one factor in the pathology and allude to the others in a general way.

We all know what a splendid impetus Grenewald gave to this subject, and indeed to the entire field of rhinology, when he gave us his pathological study on Suppuration in the Nasal Cavities; but when he attributed the sole cause of nasal polypi to pus in the accessory cavities, he hardly reached the full depth of their pathology; for we know now that, at least for the initial factor in their evolution, we must go behind the pus.

Woakes came nearer giving us a truer pathology when he found the causal factors of polypi in "necrosing ethmoiditis." Had he given his adjective "necrosing" a broader application than the ethmoid area, his pathology would not have been so long in gaining adherents.

With this foreshadowing of my own conclusion, I would propound the general statement that the first degenerative force in the history of nasal polypi is an irritant; it may be of internal or external origin. It may be one of the many poisons eliminated by the respiratory mucosa from the blood, such

*Read before the American Laryngological, Otolological and Rhinological Society, in April, 1902, at Los Angeles, Cal.

as uric acid and the various irritants seen in gingivitis; or it may be one of the numerous irritants in the atmosphere, material or organic.

The point of irritation is naturally that of the greatest exposure and of least resistance. It may be on the mucosa, or deeper in, frequently the lower layer of, or beneath, the periosteum. We know the periosteum is frequently eroded in influenza, in the exanthemata, typhoid fever, etc., causing subperiosteal abscess.

The process at which the initial point of attack is on the bone seems, from the pieces of diseased tissues examined in the various stages of its evolution, to be this: The periosteum is irritated, then infiltrated, is easily separated; large cells appear in the soft tissues and osteoclasts in the hard tissues; and as larger cells appear in the polyp, larger osteoclasts appear in the bone. These break down, disintegrate, and abscess and rarefying osteitis occur. The disintegration may, or may not, be simultaneous in the bone and in its covering.*

We have no doubt all observed this degenerative process in our operations upon the temporal bone. The process seems to be the same in the bones of the nose; and the reason why polypi predominate more largely in the latter is due to the vastly greater air area of exposure to irritants, the presence in the nose of extensive areas of tissues of lower organization, and less resistance to both internal and external irritants.

This pathological process explains why we see nasal polypi without pus, and why we sometimes find them without caries. When nasal polypi exist without pus, either there has been causal caries which has healed and left a stranded polyp, or the polyp is due to the limitation of the initial irritative force to the mucosa, the process having stopped short of bone erosion. The latter is very apt to be the case when the tissue is by nature thick, vascular and well organized. As a matter of fact, we find these solitary polypi at just such points. But when a polyp, whether produced by the internal or external process, is situated at the orifice of the accessory cavities, more or less occluding it, the polyp may become a mechanical cause of creating suppuration, caries and polypoid conditions in the cavity, and the persistent flow of pus over this orificial polyp may cause it to inflame and erode the bone beneath.

No doubt the reason why the anterior end of the middle turbinal is found more frequently necrotic is explained by its location in the pus track leading from the semilunar orifice and the anterior ethmoid cells. Yet we also know that this bone is the target for every external irritant in the air current inhaled.

Thus it must be admitted that polypoid tissue may occur (indeed, I have frequently seen it) in any stage of this irritative, infectious and inflammatory process, from the simple edematous patch of the mucosa to a fully developed polyp with a necrotic base, and that pus is at most only mechanically causal.

If the initial point of irritation is deep-seated—subperiosteal—we have invariably, in the very nature of the case, sooner or later, suppuration before polypoid degeneration, and a tendency to caries.

Now we well know that many of these irritants have a natural selection for the dark, vacuous accessory cavities, especially when the irritant is of an infectious nature, as is the influenza germ.

The full process of polypoid formation from edema to caries in the accessory cavities is usually a very slow one. The successive steps are none other than the ordinary inflammatory processes, viz., irritation, congestion, extreme vascularity, edema, abscess, polypi and finally caries. Caries, I believe, is the last step in the process in cavities, which are susceptible only because of the blocking of the natural drainage channels.

In recurring polypi we frequently find evidence of more or less thorough work having been done; the anterior end of the middle turbinal and parts of the ethmoid bone are frequently absent, demonstrating that a rhinologist has been at work. This means usually that we have a stubborn case to deal with. We must try to carry our pathological research deeper than our predecessor. This always introduces an element of doubt, whether a thorough excursion into the cavities—if it has not already been made—will be any more successful. The reason for this brings out another important point in the pathology; it leads us a step farther. It is this: The diseased tissue usually extends beyond the point which the surgeon may invade with curette and gouge.

To appreciate this condition, let us turn again to the temporal bone. It is a case of otorrhea, which perhaps has run through the entire gamut of treatment, removal of polypi or granular tissue, ossiculation, curettement, including radical work on the mastoid, etc. We note the enormous degenerative changes which have taken place, involving almost the entire mastoid and petrous portions of the bone. I speak of this particular bone because of the frequent opportunity it has afforded us for cadaveric study in cases of sudden death from extension of the otitis to the brain.

Take, for instance, the tegmen of the mastoid antrum, or the tegmen of the tympanum, the necrosis frequently extends near, or altogether to, the dura mater. This is the degenerated condition in this outlying area; impaired innervation, relaxed and clogged bloodvessels, starved and infiltrated tissues; indeed, a seminecrotic condition of much of the ultra region.

What is true of the aural bone, is true in a modified way of the entire bony structure of the nose. There is this difference: When we come to operate on the former, we are often justified in removing necrotic tissue up to the dura mater; and we leave little dead tissue behind, because we open the parts to direct view. But when we operate upon the latter, though the pus centers are usually further removed from the vital structures, and the possibilities of thorough drainage are much better, we nevertheless do not always succeed in so thoroughly separating the live from the necrotic tissue as we do

*Cordes, Archiv f. Rhin. und Laryng., January, 1901.

in the former. The remedy evidently lies in the more thorough removal of diseased tissue, and the best means to this end would be to lay open these parts to direct inspection by finger and eye.

But we must not forget the most important, far-reaching element in the pathology of polypi, viz., that in all advanced cases of tissue degeneration, when all surgical measures of curette and gouge have been faithfully and scientifically done, we still have to do with diseased processes in the *outlying* area, and that these are now not so much peripheral as they are systemic. The scooped-out area has become the deeply entrenched dumping-ground—a sort of concentric terminus of scavenger and offal trains from all parts of the body.

Now let us return to the question: "Why do nasal polypi recur?" (1) The rhinologist does not always trace them to their deeper pathology. (2) He too often fails to find the seat of their first origin; nor does he differentiate the various stages in their evolution, or the accessory causes of their continuance. (3) All the necrotic tissue is therefore not recognized and removed, and nature's drainage avenues are not re-established. (4) Many cases recur after all surgical measures have been exhausted, because too many of the scavenger trains are keeping up the pernicious habit of carrying the wastes of the body to the old dumping-ground.

Much can be done by local cleansing and judicious stimulation of this outlying area, but as we all sadly know, it is too frequently futile. The scavenger trains should be diverted to their legitimate channels, toward the intestinal tract, kidneys and the skin.

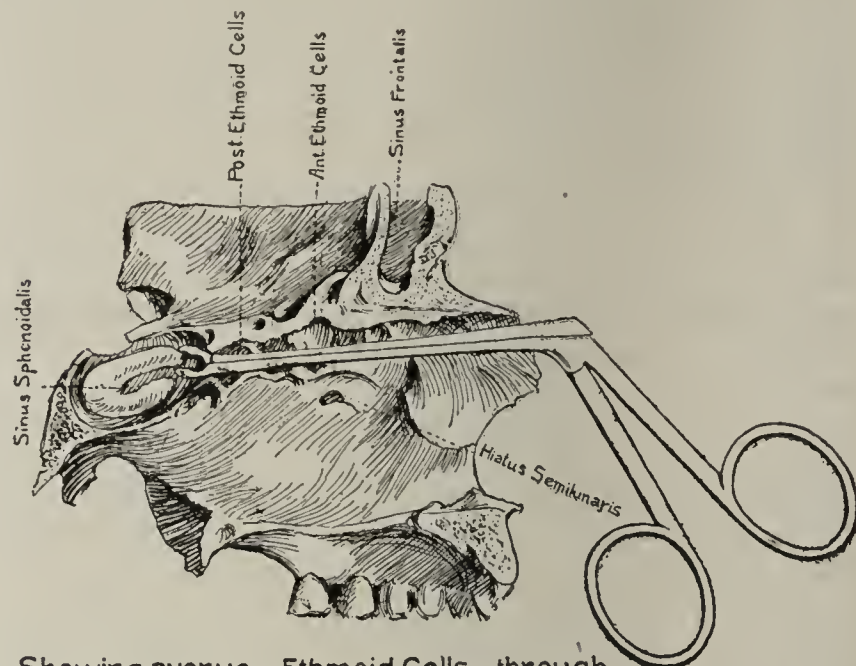
Since we do not know in every case the true origin of nasal polypi, that is, whether the case in hand has developed from the mucosa inward, or *vice versa*, the essential point in the pathology is the recognition of the fact that many do originate in the bone, and that caries is usually the chief cause of their recurrence. We should, at least in all recurring cases, and indeed in all advanced cases, exhaust every means to ascertain whether or not there is caries beyond the pus and polyp, on a higher plain, or in any of the remotest of the labyrinthian recesses of the nose, and, if found, to apply sound surgical principles in the treatment.

It will be noted that I do not take the position that all nasal polypi originate on or in the bone. Some may originate (1) in the mucous membrane; (2) in the lower layer of the periosteum developing into periosteal abscess; (3) on the lining membrane of the cavities.

The initial causes, as we have seen, may be many, and in the later stages do often become multiple, especially contributing to the production of caries.

The specimens which I show—some ten or twelve in number—however, all *seem* to grow from a necrosing bone. Some of them I removed *in toto*, that is, with their bony base. They nearly all showed the various stages of polypoid development above referred to. Four were found in the maxillary antra; four formed a part of the middle turbinals, and three grew around the antral orifices. Those in the ethmoid cells were often attached to the walls:

But the one which I wish to describe briefly was found in the sphenoid cavity. The method of its removal will illustrate the kind of treatment which some of these cases require, and may be called fairly radical.



Showing avenue.—Ethmoid Cells—through which Sphenoidal polyp was removed, and Sphenoid Cavity containing polyp.

The case is that of a woman, aged 45 years, asthma 6 years. Removal each year of bilateral nasal polypi without much relief. There were severe headaches, especially occipital. Upon examination of both nostrils, they were found packed with polypi. Beginning with the left, the polypi were removed with the cold snare from numerous attachments, including a very large one which sprung from the anterior end of the middle turbinal, the latter being removed with polyp intact. The anterior ethmoidal cells were easily broken down, emptied of pus and polypi. Polypi were also depending from the posterior ethmoidal cells. These cells were likewise broken down together with the intercellular walls, and both the inner and outer walls thoroughly curetted. Cocaine and suprarenal had been applied in the beginning, the latter progressively, so that the absence of hemorrhage enabled the eye to follow each step of the work, always presenting a good view of the parts to the last posterior ethmoid cell. The removal of dead tissue seemed complete. However, upon entering the last cell with a stout probe to test the condition of its posterior wall, the probe suddenly slid onward over half an inch. It had entered the sphenoid cavity. After enlargement of the opening and cleansing, I could plainly see a white body which felt soft to the probe. I seized it with a Hartman's ear forceps and gently withdrew a polyp nearly two inches in length, vermiform in outline and one-quarter of an inch in thickness. In its removal the patient for the first time complained of pain, saying, "you will pull the top of my head off." But the pain was of short duration. The breaking down of the anterior sphenoidal wall and its thorough curettement completed the operation. After an interval of two weeks, a thorough examination showed only a few places which needed slight curetting and stimulation; the other side was subjected to the same treatment with the exception of the sphenoidal cavity, which was found healthy. It may be of interest to note that the other accessory cavities were unaffected. Thus, at the end of the fourth week, after four sittings, the patient was dismissed for two months. Subsequent examinations were made at intervals of two months. There has been no evidence of recurrence for six months. The patient was soon relieved of all the more distressing symptoms of asthma, and with personally directed, systematic chest gymnastics and constitutional treatment, the patient seems already practically cured. There has not yet been sufficient time to pronounce upon the other cases; but since the work was equally thoroughly done upon them, and being less advanced than this one, and

their general health better, I expect to report favorably upon them at some future time.

I believe these operations with local anesthesia have been as thoroughly done as can be effected by Dr. Lack's method, that is, by stout curette (Myer's old ring-knife, spoke-shave, etc.) under general anesthesia, in which the finger is the sole guide.** Dr. Lack's method has its legitimate place, but cannot be as safe nor as economical in the saving of healthy tissue, and the dead tissue cannot be so completely separated from the live, but that subsequent sittings are still required.

RARE FORMS OF LOCALIZED POSTERIOR STAPHYLOMATA IN MYOPIC EYES.

By BURTON K. CHANCE, M. D.,
of Philadelphia.

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Marked changes at the posterior pole of myopic eyes are so commonly seen to be confined to the temporal region of the fundus, that I am impelled to present the following notes upon several exceptional cases which I have seen in the course of my ophthalmoscopic examinations in the past five or six years; moreover, it seems proper that I should publish this report because of the constant statements one finds in the text-books, that the chief changes noted in the fundus of myopic eyes are to be found in the temporal region, with the passing remark that nasal conus is rarely seen, though most books contain no reference whatever to the latter condition.

CASE 1.—In May, 1896, through the kindness of my friend, Dr. Thomas H. Fenton, I received the appointment of attending oculist to a large convent to which was attached a school for girls. In the first series of systematic examinations of the members of this community there was noticed, in the highly myopic eyes of an aged nun, an extensive area devoid of choroidal and retinal elements, confined to the nasal side of the optic disk in each eye, with marked ectasis of the affected areas. The temporal borders of the disks presented no change from the conditions usually accepted as the normal; the scleral and choroidal



FIGURE 1.

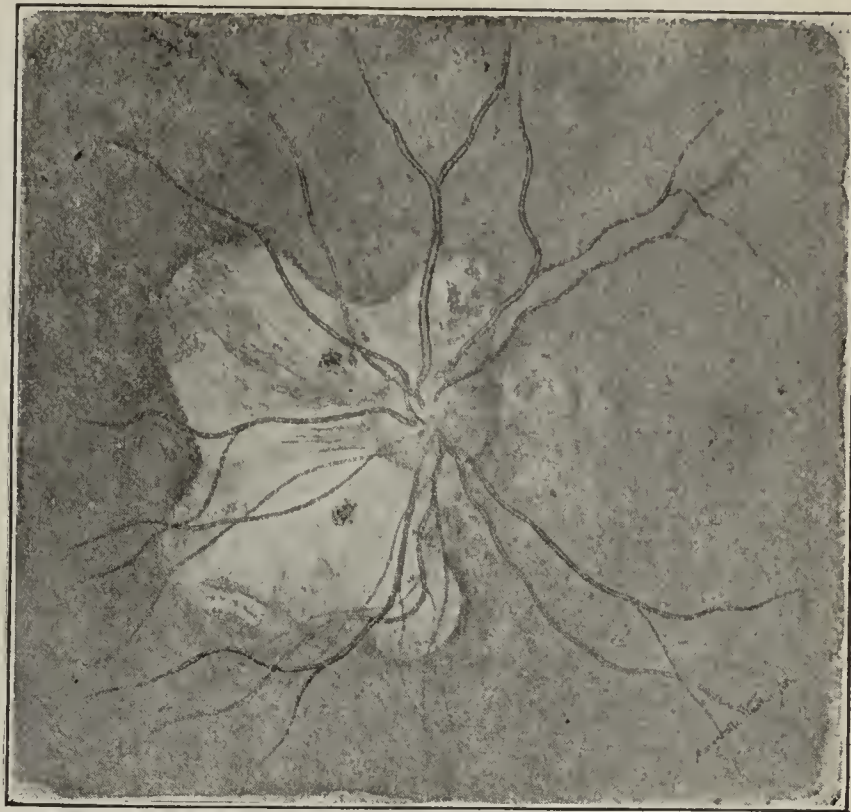


FIGURE II.

rings were narrow in width, while the papillomacular regions were occupied by apparently healthy tissues; the general refraction of each eye equalled ten diopters. After a careful examination of the abnormal regions I became satisfied that these were ectatic, by reason of a difference between the refraction of the edges and of the depths of the areas amounting to five diopters. These ectasias were irregularly pyramidal in outline, the disks forming the apices: they measured approximately one and a half by three disk-diameters in the right, and two and a half by three disk-diameters in the left eye. The edges were sharply demarcated, though for a short distance beyond, the choroid and retina were slightly attenuated. The retinal vessels emerged from near the temporal borders of the disks and then bent sharply, trending toward the nasal regions, appearing stretched and thinned over the ectasias. A few feathery opacities were noted in the lenses and only a faint haziness pervaded the vitreous. The pupils were equal in size, each measuring about four millimeters, and the irides exhibited prompt reactions to the various stimuli. By the advice of Dr. William F. Norris, based upon the observations of Weiss, that the orbits of the myope are disproportionate to those of the emmetrope, measurements were made of the diameters of the orbital bases, which on the right equalled thirty-eight millimeters horizontally by thirty-five millimeters vertically, while in the left they were thirty-five millimeters in each diameter. The globes were deeply set, owing to the marked absorption of the orbital tissues. This aged lady had never been fitted with glasses satisfactorily; although she was quite infirm she had a visual acuity of 6/100 and was able to read 2 D, while she displayed a marvelous dexterity in the use of the finest sewing needles.

The finding of the remarkable conditions presented was a suitable reward for the systematic examination of the eyes of one who consulted me for the relief of a mild form of chronic catarrhal conjunctivitis. Frequent opportunities were taken to study these eyes, and I am strongly inclined to consider the abnormal areas in them to have been true posterior ectasias of the sclera. The lady died recently of pneumonia; for obvious reasons I could not obtain the globes for further study.

CASE 2.—While still studying the first case, I was consulted by a gentleman above sixty years of age, a master of a large merchantman, who stated that he had been compelled to abandon his school studies very early because of an apparently irremediable nearsightedness. While still a youth he went to sea and in this service he has been continuously occupied. His habit has been, before setting

**Jour. Laryng., London, Rec., 1902.



FIGURE III.

out on a voyage, to buy at a spectacle shop a half dozen pairs of "No. 13," these glasses serving him until his return to port. In this person's eyes I was surprised to find conditions in general similar to those noted in the first case. The visual acuity of the right eye was equal to $1/30$, but with $-5.-3.\text{ax } 105=6/9$, type 0.50 D. 17 to 23 cm.; of the left $1/22$, with $-4.-2.\text{ax } 75=6/9$, type 0.75 D at 17 cm. The right orbital base measured forty millimeters in the horizontal diameter and thirty-five millimeters in the vertical, the left was forty millimeters in each diameter. The globes were prominent. In each eye the crystalline lens was faintly hazy, while the vitreous was perfectly clear. In the right eye, surrounding the disk, was seen a large area devoid of choroidal and retinal tissues; the width of this area at the temporal portion did not exceed one-quarter of a disk-diameter, while at the nasal side it extended to a distance of about two diameters. The refraction of the surface of this abnormal area, up to $-14.\text{D}$, while the general fundus level measured but $-10.\text{D}$. Across this presumably ectatic area the retinal vessels were stretched. In the left eye there was a similar ectatic area which did not, however, involve the temporal border of the disk; here the usual rings were clearly and sharply defined. In order to study the details of this protrusion as high a lens as $-13.\text{D}$ was necessary: the remaining portions of the fundus were



FIGURE IV.

undisturbed notwithstanding the existence of a myopia equal to nine diopters. With correcting glasses this patient was given comfort and pleasure: in the past five years frequent examinations have been made, and at no time have there been noticed any additional changes in the fundus.

CASE 3.—I now have under my observation a gentleman and his daughter, each of whom is highly myopic with marked astigmatism, and in whose eyes the temporal regions are free from the usual posterior sclerochoroiditis found in myopic eyes. The eyes of the daughter are of unequal refraction, the right is myopic twelve diopters, and though it has never been a useful organ, the disability has apparently not increased since childhood; the left eye is myopic about two diopters and presents no atrophic fundus changes. To the nasal side of the disk in the right eye there is a sharply circumscribed area, extending to fully two disk-diameters, which presents characteristics exactly similar to those noted in the aforementioned cases.

CASE 4.—In each eye of the father of the lady in Case 3, there is a similar abnormality clearly circumscribed to the inferior border of the disk.

Whilst preparing this record, the following additional cases have presented themselves to my notice:

CASE 5 is that of a lady, now nearly sixty years of age, who complains of moderate presbyopic symptoms. She has been near-sighted without appreciable increase since girlhood. The V of the right eye is $4/60$ (with $-5.\text{ax } 165=5/15$), of the left $5/45$ (with $-3.\text{ax } 150+1.25.\text{ax } 75=5/10$). In the right eye at the nasal side of the disk there is a large irregularly-shaped conus extending in its widest dimensions for two disks diameters. The other regions of the fundus are entirely free from the signs of sclerochoroiditis. In the left eye there are signs of myopia, although the refraction is of the mixed form. While the tissues surrounding the superior, the temporal and the nasal borders of the disk are unchanged, there is circumscribed to the inferior border a well-marked conus of nearly a disk's diameter.

CASE 6 occurred in a man who had been highly myopic since early childhood. In the right eye the disk was surrounded by healthy tissues, but in the temporal region the fundus presented large, clear cut, as though punched out, atrophic or deficient spots, which were not bordered by choroidal pigment. In the left eye, confined to the nasal region, is a large horizontally ovoid area, containing neither choroidal nor retinal tissue, across which large branches of the midnasal vessels are stretched. As was noted in the previous cases, the disk with its vessels seems to be pulled toward the nasal side of the fundus. High astigmatism is present in these eyes also, the general myopia exceeding twenty diopters.

CASE 7 was seen in the person of a colleague, who states that he learned to read at a very early age; his teachers noticed that he was compelled to hold his book very close to his eyes. At fifteen years of age he was given concave spectacles, at a later period another pair was ordered after a more careful examination than that in his boyhood. He is now fifty years of age and has worn the same strength lenses for the past twenty-five years. The vision of the right eye is $1/60$, with his correction $5/7.5$; of the left is $3/50$ and $5/5$. The right eye is myopic about $10.\text{D}$, the tunics are attenuated: in the nasal region is a large irregular area of clear, smooth, unpigmented sclera, presenting over which choroid and retinal tissues are wanting. The fundus of the left eye presents simply stretching of the coats, the refraction being about $6.\text{D}$. In neither eye are there signs of recently degenerated areas. Many years ago, for a period of two weeks, Dr. E. was treated for an attack of "choroiditis" which had occurred in the right eye.

From my earliest ophthalmological reading I learned that in myopia the presence of a conus in other regions than at the temporal side of the disk was extremely rare and was not to be expected. Since finding these exceptional cases I have never lost an opportunity to make careful ophthalmoscopic examinations of all cases of myopia that presented themselves in both my hospital and private practice, with the hope of finding conditions similar to those noted above. During my association in the clinics of Dr. Norris, both at the University

Hospital and at the Wills' Hospital, and in the examination of myopes reporting in the service of other surgeons at the latter hospital, I have seen but two other eyes, in different individuals, which were the seat of a large distinct conus circumscribed to the nasal region.

In searching the literature of the subject, scarcely any record has been found describing posterior staphyloma localized to the nasal side of the disk. In *Annales Oculistiques* for 1866, Vol. LVI, page 201, Giraud-Teulon, in his most complete monograph upon Staphyloma Posterior, simply notes, without description, the occurrence of such a localized ectasis. R. D. Batten, in the *Ophthalmic Review* for 1894, Vol. XIII, page 113, describes at some length the various localized staphylomata and includes the nasal variety, yet reports in detail no case of this last form. O. Haab, in his recently published Atlas of Ophthalmoscopy, illustrates a fundus in which a large staphyloma was found at the nasal side with similar abnormalities in other regions.

Summary.

The chief characteristics noted of these abnormalities are as follows: The areas are sharply circumscribed and are depressed beyond the level of the surrounding fundus, as is proven by the difference of refraction between the two levels. The ectasie are composed only of the sclera, which has a pearly luster, with here and there on the surface thin grayish pigmentations, much resembling those observed in cases of true coloboma of the choroid, rather than the dense collections seen after atrophy of the choroid. The disk margins are hazy; the optic disk itself appears to be tilted toward the ectasis, the central depression, and also the vessels as they emerge, trend toward it. The nasal branches of the central vessels run directly to this region, and as they cross the ectasis they appear to dip to a deeper level, which they surmount when they approach the opposite side. The arteries are thinner in caliber than the veins, while the color of the venous currents is decidedly deeper than that noticed in the vessels distributed to the other regions; here also the capillaries are more numerous. The temporal vessels run either toward the nasal edge of the disk or beyond the margin, and then turn back sharply, to be distributed to the temporal portion of the fundus. In the cases of ectasis localized to the inferior border of the disk, a relatively similar anatomical arrangement of disk and vessels was noted. All of the eyes have been highly myopic, with scarcely any other defects of structure, and although the macular regions have been unaffected, the corrected visual power is much less than the normal standard.

In each of the instances here observed the patient has been of a superior degree of intelligence and has carefully noted the ocular symptoms; the affected eyes have been highly myopic from early childhood, and but few subjective changes have taken place during the life of the individual.

Conclusion.

On comparing these fundus appearances with those described as having been present in other regions in eyes which later have been examined

in section, and wherein were found ectasie of the sclera marked by an absence of the other tissues, I am inclined to class the herein reported cases as instances of true posterior staphylomata of congenital origin and not as expressions of the changes taking place during the progress of increasing myopia.

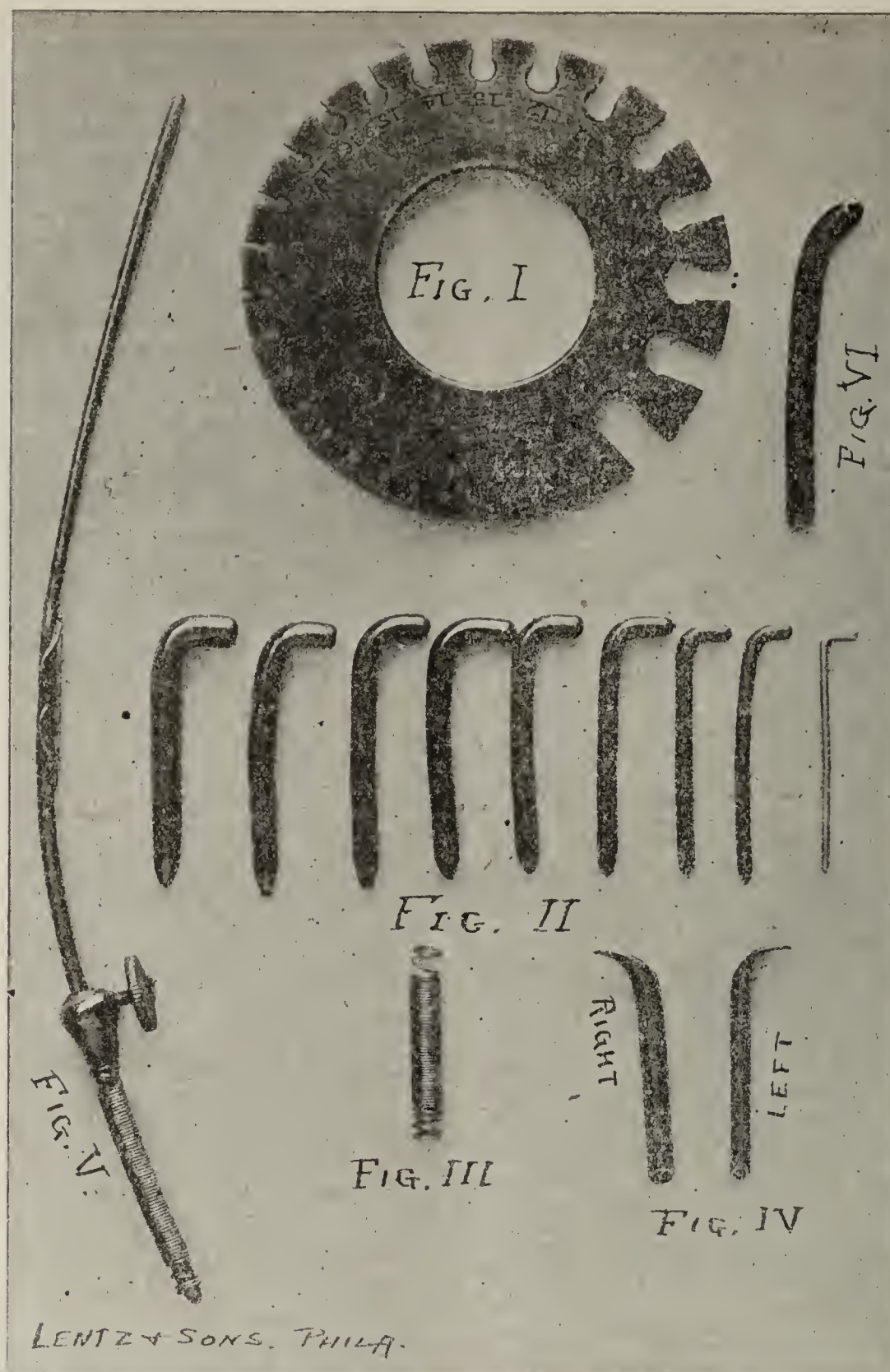
A METHOD OF TREATMENT FOR THE PROPER DRAINAGE OF TEARS IN DERANGEMENTS OF THE LACHRYMAL APPARATUS.

By J. WINTER WAMSLEY, M. D.,

of Philadelphia.

The April, 1899, issue of the *University Medical Magazine* contained an article I wrote about some conditions of the tear-duct. Since then I have made some experiments and observations in reference to the permanent drainage of tears. Almost all eye specialists of good standing admit that there is no operation performed in relation to this particular branch of surgery which is more unsatisfactory in its results than operations upon the tear-duct for the permanent establishment of the drainage of tears. Of course, if the tear-duct is closed by any condition such as stricture, either membranous or bony, or caused by an abscess in the duct, there is only one alternative: It must be opened. This procedure of cutting through the canaliculus and passing a knife down the duct at once destroys the natural drainage apparatus, as can be well demonstrated by comparing it with a simple Davidson syringe, the tear-sac being represented as the bulb and the valves in the duct as the valves of the syringe. During various movements of the eyelids, or in conjunction with the movements of the eye or the movements of the facial muscles, there is caused a natural contraction of the sac, which, being already filled with tears, is squeezed upon and the tears forced down the canal into the nose, return being prevented by the valves in the duct. If these valves are destroyed, as they naturally would be by passing a knife through the canal, then, even though the sac retains somewhat of its capacity, the tears are, in many instances, forced back into the eye with very little drained into the nose, either by capillary attraction or gravity.

Various methods have been tried to cause the natural drainage of tears after all conditions of stricture have been relieved, but no absolute benefit is as yet understood. Bowman first devised a system of small probes. There were three, very small in size, the smallest not more than $\frac{1}{2}$ mm. in diameter, and the largest about $1\frac{1}{2}$ to 2 mm. in thickness. These probes were found to be too small, in the majority of instances, to cause enough dilatation to prevent the reformation of structure. Theobald afterward followed with a larger sized probe, the largest one being about 4 or 5 mm. in diameter. There is no doubt that the larger sized lachrymal probe produces much better results than was anticipated, but there is a disadvantage about probing the duct. It not only causes a great deal of pain, in consequence of the frequent probing, but also, as soon as the probing is discontinued, there is, in many cases, a return of the stricture. There



are some forms of cases, however, in which the stricture seems to be very obstinate and will close even during the intervals between probing.

Should there be any denuded bone in the canal, the passing of the probe naturally scrapes off the granulating tissue, and hence does not allow the canal to heal. Induration and increasing tissue is likely to form about such sites with the introduction, at intervals, of the old system of probes. The numbering of the various sorts of lachrymal probes is very vague for an accurate understanding of the size. I lately devised a system of probes, using the English standard wire gauge. The sizes are quite gradual with this gauge; so that much better results are obtained and little or no pain is caused by using a system of probes of gradually increasing sizes, starting from a proportionately small size, according to the immediate condition of the patient at the original time of operation, and gradually in-

creasing the size until the utmost diameter of the canal is obtained. One great point in using probes is to have them retained in the canal in order that healing may take place about the probe rather than have it repeatedly stretched and bruised by frequent probing. These probes I have had made in two lengths (Figs. II and VI), one set about 32 mm. long, another set about 40 mm. long, and so constructed that they can be used either for the right or the left side. They are slightly angled at the upper end so that it projects over the canaliculus, thus allowing a ready means to place it or extract it, as occasion may require. The ends of the probe are more rounded than conical. As to the shape of the angled or shank part of the probe, it makes little difference; some I have at right angles to its main body, and some only slightly angled. The points to be avoided are: (1) That the shank should not stick into a low brow and (2) the angle should be long enough easily to catch for the purpose of in-

roducing or extracting, (3) the angled end should be large enough, not only for the latter purposes, but even to project over the margin of the lower lid. The patient may complain of it being unsightly, but there should be no attempt to make the short shank lie in the slit of the canaliculus; this could not be done, anyhow, with the larger sized probes, and it is these which are most unsightly from an esthetic point of view. It is the result which is desired. These probes should not be stamped with a number or any marking whatsoever throughout their surface. They should be perfectly smooth, because this insures a readiness for perfect cleanliness. The probe should be removed and placed by the fingers, grasping it by the projecting shank. I might mention that the probes should be highly polished; forceps scratch them. One of the most important considerations in using a probe in the tear-duct is in the beginning to ascertain the actual length of the canal from the inner canthus to the floor of the nose. This varies more frequently than may be noticed. In dilating the canal it should be dilated evenly throughout its entire length, and, in this present system of probes, if the probe should happen to be too short, then there would not be a complete dilatation; this is an important consideration, particularly should there be hypertrophy of the inferior turbinated bones, causing either pressure or contraction of the lower end of the duct. Therefore, the canal should be dilated with a probe which will reach its entire length. Care should be exercised in measuring the length of the canal in order to be certain as to the use of either set of probes. In the beginning a small probe should be used or, if the duct be fairly patulous, one should be placed which fairly fills the duct, and worn in the beginning, probably for a week or two, a great deal depending upon the amount of irritation or after-action.

This should be deferred until most of the irritation has ceased, when, upon removal of the probe, it will be found that the canal has become, as it were, so accustomed to the probe that, in most instances, it has grown even larger with the probe in place, so that it is very easy to replace it by one a size larger. This may be repeated, increasing the size in a few days or a week, as the condition will allow. There are many cases in which the bony canal is even smaller in caliber, in which cases forcible dilatation should be used, even fracturing the bone, if necessary. When an operation is performed upon the tear-duct, the most important thing is to increase the size of the canal to the very utmost. When we introduce the larger sizes of these probes into a small bony canal a snap of the bone will be distinctly felt as the probe is introduced. In increasing the size of these probes, if we have not been able to introduce, after a time, what we consider a fairly large size, it is not wise to use very considerable force; only such force as would break a delicately constructed portion of the bony canal should be used.

The system of probes I have devised ranges about 14 in number, the smallest size being about a 19 gauge, increasing in size to No. 6, according to the English standard wire gauge. The best

gradations of wire which I have been able to obtain are made of copper, out of which I have made these probes, having had them gold-plated to prevent any action of the copper on the mucous membrane. Aluminum would be much better in these gradually increasing sizes, it is more pliable, does not corrode and is lighter in weight. As has been said before, the duct heals much more readily and with more toleration on the part of the patient when the probe is retained in the canal, and it is natural that new tissue forming about any portion of the canal, which is to be made new, will acquire a caliber about the probe as it is worn by the patient. The old system of probes, in some cases, would hardly more than stretch the canal with a slow or protracted healing.

Of all the systems of probes for the tear-duct which I have used, this one is the best. One using these probes should have the complete set, also an English standard wire gauge. If a probe is extracted and left out for any length of time, in most cases there will be a return of the stricture or a natural swelling and pressure of the nasal mucous membrane producing a stoppage in the drainage of tears. Cases like this require some form of tube to be placed in the duct in order to keep it permanently open. There are many forms of styles and many kinds of tubes which have been tried and used in the tear-duct. These are made mostly of gold or silver. When any metallic appliance is worn in the tissues it should be made of gold or platinum, as these metals do not corrode, even when used for a considerable time. I have removed styles made of silver which had been worn for a great length of time, and which corroded so that they had been eaten almost in half. The tube mostly used is one of the straight kind with a short beak at the top. I found that in many of these tubes the beaks were too short, so that they easily became imbedded in the tissue about the inner canthus and were very difficult to extract; if the beak is large it will not rest nicely in the canaliculus, for which purpose it is intended. These tubes are generally made with the extreme opening at the bottom level across, but I found in some cases in which the tube was long enough to reach the floor of the nose it simply stopped the drainage of tears. I overcame this by making the opening at right angles to the length of the tube, with the opening pointing anteriorly, so that, to some extent, when the nose was blown, there would be some slight action on the principle of an atomizer. Fig. 4 represents the gold tube, both right and left, as regards the anterior angular opening at the bottom. When a tube is placed into the tear-duct, it should be the largest it is possible to place within the canal. In experimenting with different sizes of tubing, I found that the small-sized tube held itself filled with water by capillary attraction. This is the point which should be avoided. In draining the tears there is only one method which can be used, and that should be a tube so large that by gravity the water will drop from its caliber. Certainly this is more likely to occur in a tube $2\frac{1}{2}$ mm. in diameter than in one which is only $\frac{1}{2}$ to 1 mm. in diameter. Much attention should be paid to the flow of tears in the canaliculus

and sac as to their exit in the nose. In some cases I remove from the inner lip of the canaliculus, pointing toward the sac, a wedge-shaped piece of tissue in order to allow a better drainage into the sac. I found the gold tube was not a desirable kind to use, for the reason that, as a rule, these tubes were made all of one length, and there is danger in introducing a solid tube on account of the likelihood of its scraping off the membranous lining. The solid tube is so thick that even a probe placed through it for the purpose of introduction leaves the thick part of the tube projecting around, which catches the tissue as it is passed down.

Every tube placed into the duct should correspond to the length of the canal from the corner of the eye to the floor of the nose. This should be done by passing the small-sized Bowman probe into the duct, resting it upon the floor of the nose and taking hold of the retaining probe with a pair of forceps, extracting it and measuring it accurately in millimeters. After the duct has been systematically dilated, the tube can then be accurately placed as regards its caliber and length to cause the best means in the permanent establishment of the drainage of tears. A mistake that is commonly made in relation to the introduction of a tube is that we rarely use a tube of sufficient caliber to allow of free drainage, hence there is a collection of mucopurulent matter in the tube which is often rejected into the eye by the patient blowing the nose. But when the tube is of the largest size possible for the immediate case, it remains constantly open and with the blowing of the nose air rushes through the tube, but without carrying any collected matter from the tube into the eye. Patients are likely to be annoyed at first by the free passage of air from the tube, but they soon learn to accustom themselves to hold the corresponding eye closed while blowing the nose, thus preventing the passage of air through the tube. As has been before stated, one of the greatest difficulties of using a tube for draining the tears is, that it is so likely to be clogged with mucous accumulations, these drying upon the interior surface and thus filling its canal; hence this is another reason why the tube should be the largest possible. Another reason for not liking the solid metal tube is that it does not allow for a slightly distorted canal, and, when a straight tube is worn in such a canal, it is likely to cause irritation at the points of pressure, and the person wearing the tube is not likely to be at all comfortable.

I have devised a tube which meets the requirements of these particular cases, and which, from actual experience, has demonstrated to be of extreme value. This is a tube made of wire (Fig. III). The object of a wire tube is, in the first place, that it is flexible; it will bend in any tortuous direction. The size of the canal having been ascertained by the previous treatment with probes, the tube is then made to a corresponding diameter. This is done by winding it carefully and closely coiling it on a probe of the intended diameter after having previously measured the actual length of the duct from the middle portion of the sac to the floor of the nose. The wire tube is then made to within 2 mm. shorter than the complete measured length,

this being for the reason that after the tube is made it is pulled out at either end so as to form a short spring, both at the top and bottom (Fig. III). After this tube is made, if one holds it by the end to demonstrate its flexibility, it acts, when shaken, like a piece of soft rubber tubing. It is introduced into the canal by first being placed over the corresponding probe and adjusting the set screw on the long probe at the desired length of the tube. The point of the probe is to project very slightly below it, but only enough to allow a smooth passage (Fig. V). The wire tube in the illustration is not the actual size. It was made only to illustrate the coiled part of the tube with both ends pulled out in order to demonstrate the springed extremities. It is then slightly greased and introduced into the canal, and, when the probe touches the floor of the nose, the tube is pushed off the probe by holding it below the set screw with the blade of a dull knife or any other instrument, thus preventing any exit of the tube when the probe is withdrawn. I have devised a special probe for the introduction of the wire tube (Leutz & Sons). In Fig. III the manner will be noticed in which either end of the tube is pulled out. This is for the purpose of allowing a free drainage, both above and below, while projecting into the sac and also resting upon the floor of the nose. I experimented with various sizes of wire and various carats of gold and also silver and platinum. The one great point in the making of this tube is to secure the proper spring both above and below after it is drawn out about 1-16 of an inch, or slightly over, and yet to retain its spring and, at the same time, when the wire is wrapped about a probe in the making of the tube, to retain its close coiling. I found that silver was too soft, and that it did not retain any spring; aluminum was but little better, but 14 or 18-karat gold I have found the right metal to be used, and this should be annealed while retained on the corresponding probe, and brought to red heat. As regards the size of the wire used in the making of this tube, I found that a size corresponding with a No. 30 gauge (being not much thicker than heavy horse hair) was the best, for the reason that any size heavier would make the tube too thick which is unnecessary and also having a tendency in diminishing the caliber. Also it would not have the satisfactory quality of spring at either end of the tube after it was drawn out. This is the one point I want to maintain in the construction of the tube; by this means there will be an exit at the end of the duct which would not occur were the tube solid and resting upon the floor of the nose. There is absolutely no difficulty in removing the wire tube, if necessary, as it can easily be caught with a pair of small rat-toothed forceps; the tube will uncoil by pulling, rather than come out in its entirety if there be even slight pressure upon it; being so delicate is a quality more advantageous than the solid metal tube. It takes about 3 to 4 feet of wire in this particular gauge to make one tube.

As to the size of the wire tube, I prefer one no smaller than No. 9 gauge, outside measure, which is about $3\frac{1}{2}$ mm. in diameter. This is for average use. However, when it is possible

to use a larger tube I always do so, as the larger the tube the better the result. Too small a tube is constantly filled by capillary holding, which favors the solidification of mucoid matter within the caliber. A proportionately large tube allows for better drainage by gravity and less chance of accumulation upon the interior. Fig. I represents the English standard wire gauge, which is kept in stock at hardware stores. The gold-wire tubing of any length and in four sizes, gauges 7, 8, 9 and 10, can now be bought, but in ordering the length and outside gauge of each tube should be specified in millimeters.

For a long time past I have had in use with a number of patients the device made of gold wire, and it has given most excellent results. It is much easier to treat the patient in dilating the canal with this system of short probes, facilitating the introduction of the flexible wire tube, which is retained by the patient without irritation. There are very few cases in which I have to cut out a portion of the inner lip of the canaliculus. The greatest difficulty and pain experienced by the patient is only at the initial time of operation and until the first reaction has ceased. Then the foregoing treatment with probes is comparatively painless and not by any means in proportion to the pain experienced by the regular system of probing. As the probe is allowed to remain in the canal it becomes accustomed to it, so that it is very much easier to pass the next larger size until the utmost diameter of the canal is reached. It seems to me there is a peculiar function in relation to the punctæ, in that it has the power of separating the greater amount of mucopurulent matter from the tears, and that part which travels down in solution through the duct is kept in a fluid state by the natural secretion from the mucous lining of the lachrymal canal itself. Here, also, another condition is avoided by the tube made of wire, in that it allows secretion from the membranous duct to penetrate through any part of the coiled tube, which causes a lessening in the chances of mucus drying upon the sides of the tube while in position. There is no absolute means in the artificial draining of tears to keep the duct tight from air without interfering with what we are endeavoring to accomplish. There are some cases of epiphora which are caused by a contracted puncta, or most probably by hypertrophied valves in the duct, in which dilatation of the puncta does little good. Better results are often obtained by cutting the canaliculus with Weber's knife just enough to pass the smallest size of Bowman's probe. This often produces excellent results without much attendant danger of disorganizing the natural lachrymal apparatus; but this does not apply to cases of absolute stricture, either membranous or bony, or an abscess, in which the more radical treatment with probes, as above mentioned, would be necessary, probably ending with the use of a tube. I have a suspicion that in many of these cases of common epiphora, if the canal could be inspected, there would be found a collection of mucoid matter and possibly some natural predisposition to such accumulations. This refutes, to some extent, the theory of the punctæ in separating the mucopuru-

lent matter from the tears, but undoubtedly it has, to some extent, the latter quality in which there may be in the above suggestion, a lack of proper secretion from the membranous lining of the duct together with a tendency to absorption.

If, however, after a few trials in the use of the small probe, no distinct benefit is attained, then, if the epiphora is well marked, so that it becomes annoying to the patient, the regular form of operation is absolutely necessary to acquire the best result of draining the tears. The method cited in this paper affords an extreme advantage over the old for patients who live at a distance from the city. The probes (Figs. II or VI) being worn constantly insure the completion of cure, even during irregular treatment, thus avoiding the attendant danger of the tear-duct closing should the patient neglect to call upon the physician at some regular time, as would be necessary in the old methodical use of general probing.

In conclusion, I have to state that within my own experience this is the nearest approach to a permanent drainage of tears by any artificial means after the natural drainage apparatus has been destroyed.

A NOTE ON THE EMPLOYMENT OF THE HANGING-DROP METHOD IN THE STUDY OF HEMOPRECIPITINS.

By A. ROBIN, M. D.,
of Wilmington, Del.

(From the Delaware State Board of Health Bacteriological Laboratory, Newark, Del.)

In the course of experimentation on specific antiserum for the detection of human blood it was deemed advisable to devise means by which the specific serum could be preserved. The serum employed was obtained from a rabbit which received 8 injections of placental blood, 10 cc. each. This serum was very active, giving a distinct reaction with human blood within 30 minutes. I might add, parenthetically, that in my experience mammalian blood, which is not human, gives a variable reaction at the end of 6 hours.) To a small quantity of the serum several drops of chloroform were added, and the bottle kept in a dark closet. At the end of 4 weeks the serum was found to give a slight reaction only at the end of 2 hours, thus showing a marked deterioration in specificity. It then occurred to the writer to apply the hanging-drop method, in the hope of observing the reaction at a stage when it could not be appreciated macroscopically. Accordingly, human and calf's blood were diluted until no color could be perceived and a loopful of each placed on a clean coverglass which was then inverted over a concavity (a slide with two concavities was used.) Both hanging-drops were observed for some time and found perfectly clear. A loopful of the antiserum was then added to each, and the slide placed in the incubator. Observation was made every 5 minutes, 1-in. ocular and 1-6 objective (B. & L.) being used. At the end of ten minutes a number of small refractive granules could be seen in the hanging-drop of human blood. At the end of 15 minutes a considerable number of granular clumps were observed in the

human blood, closely resembling a typical Widal reaction, except for the absence of bacilli. Throughout the entire period of observation the control hanging-drop of calf's blood remained perfectly clear. The reaction was striking and unmistakable. It is thus seen that a reaction which was delayed for two hours in the usual method could be detected within 15 minutes. The advantages of the hanging-drop method in the study of hemoprecipitins, especially for medicolegal purposes, are self-evident. In the first place, the time of observation is considerably shortened; secondly, the reaction can be observed with far greater accuracy under the microscope, and, thirdly, minute quantities of blood can be employed. The interesting phenomenon of the agglutination of the precipitate is quite suggestive. It would seem to show that the antiserum contains, beside the specific precipitins, also agglutinins which act on the granules of the precipitate as they do on bacteria.

ARCHIVES DE MEDECINE DES ENFANTS.

July, 1902. (Vol. 5, No. 7.)

1. The Treatment of Infantile Atrophy. COMBE and NARBEL.
2. A New Treatment of Infantile Atrophy. A. NARBEL.
3. Kinesitherapy in the Treatment of Scoliosis in Adolescents. SAQUET.
4. Gärtner's Tonometer for Measuring Bloodpressure in Children. A. KOLOSSOWA.

1.—After describing infantile atrophy, Combe and Narbel state that in the treatment intestinal putrefaction must be diminished, by gastric lavage, enteroclysis, calomel, tannin and hydrocarbon diet; the failure of absorption of solids must be combated by giving cereals, puddings, etc.; the lack of absorption of fluids must be combated by hypodermoclysis and enteroclysis; the loss of heat must be combated by giving hot water and using warm, moist applications and the incubator when necessary; secondary infection must be prevented by washing out the mouth, nasopharynx and keeping the skin and the air breathed clean; secretion must be excited by orexine tannate, sodium cacodylate and phosphorous. The diet of such infants is important, food containing lecithine being necessary. For this increases the elaboration of nitrogen, decreases the loss of phosphorus and increases the body weight. [M. O.]

2.—Narbel reports his results with lecithine in 5 cases of infantile atrophy. It increases the gastro-intestinal functions, improves the general condition and increases weight, with a gain in appetite and assimilation. When atrophy is due to syphilis, lecithine has no effect. [M. O.]

3.—Kinesitherapy, the art of treating disease by movements, is of especial value in the scoliosis of adolescents. Swedish gymnastics are indicated. [M. O.]

4.—Kolossowa describes Gärtner's tonometer, giving the technique for measuring the bloodpressure in children, in physiological and pathological conditions. Three hundred and forty well children, 115 with diphtheria, 45 with measles and 7 with scarlet fever were examined. From her experiments it would seem that in the infectious diseases a diminution in bloodpressure shows the degree of the intoxication. When this is marked, paralysis and death may be expected. [M. O.]

Acute Anterior Myelitis Following Traumatism.—Ferrier (*Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, July 24, 1902) reports a case of acute anterior myelitis caused by a fall upon the left shoulder. Paralysis with muscular atrophy of the left arm and hand resulted. Though the condition might have been spinal paralysis of infectious origin, Ferrier believes that the condition in this soldier was traumatic. The full case-history follows.

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending December 12, 1902:

SMALLPOX—United States.

			C.	D.
CALIFORNIA:	Fresno.	Nov. 1-30.	2	
COLORADO:	Denver.	Nov. 22-29.	1	
FLORIDA:	Jacksonville.	Nov. 22-Dec. 6.	3	
	Pensacola.	Nov. 22-Dec. 6.	5	
GEORGIA:	Atlanta.	Nov. 27-Dec. 3.	1	
ILLINOIS:	Chicago.	Nov. 29-Dec. 6.	1	
	Evanston.	Oct. 1-31.	25	
	Evanston.	Nov. 1-30.	40	
INDIANA:	Evansville.	Nov. 29-Dec. 6.	1	
	Hammond.	Nov. 23-30.	34	
	Indianapolis.	Nov. 29-Dec. 6.	8	1
	Muncie.	Nov. 1-30.	2	
IOWA:	Ottumwa.	Nov. 1-22.	22	
KANSAS:	Wichita.	Nov. 15-29.	2	
MAINE:	Biddeford.	Nov. 29-Dec. 6.	11	
MASSACHUSETTS:	Boston.	Nov. 29-Dec. 6.	23	7
	Chicopee.	Nov. 29-Dec. 6.	1	
	Everett.	Nov. 29-Dec. 6.	2	
	Lawrence.	Nov. 29-Dec. 6.	1	
	Taunton.	Nov. 29-Dec. 6.	1	
MICHIGAN:	Grand Rapids.	Nov. 29-Dec. 6.	5	
MISSOURI:	St. Joseph.	Nov. 29-Dec. 6.	1	
NEBRASKA:	Omaha.	Sept. 1-Dec. 6.	9	
NEW HAMPSHIRE:	Nashua.	Nov. 29-Dec. 6.	21	
NEW JERSEY:	Jersey City.	Nov. 30-Dec. 7.	1	
NEW YORK:	Binghamton.	Nov. 29-Dec. 6.	1	
	Buffalo.	Nov. 29-Dec. 6.	2	
	New York.	Nov. 29-Dec. 6.	1	
NORTH CAROLINA:	Charlotte.	Nov. 1-30.	39	13
OHIO:	Cincinnati.	Nov. 28-Dec. 5.	3	
	Cleveland.	Nov. 29-Dec. 6.	11	1
	Toledo.	Nov. 22-Dec. 6.	9	
	Warren.	Nov. 29-Dec. 6.	1	
	Zanesville.	Nov. 1-30.	2	
PENNSYLVANIA:	Altoona.	Nov. 29-Dec. 6.	3	
	Erie.	Nov. 29-Dec. 6.	2	
	McKeesport.	Nov. 29-Dec. 6.	1	1
	Philadelphia.	Nov. 29-Dec. 6.	6	1
	Pittsburg.	Nov. 29-Dec. 6.	36	6
SOUTH CAROLINA:	Charleston.	Nov. 29-Dec. 6.	2	
TENNESSEE:	Chattanooga.	Nov. 1-30.	1	1
TEXAS:	San Antonio.	Nov. 1-30.	1	
UTAH:	Salt Lake City.	Nov. 22-Dec. 6.	3	
	Imported.			
WISCONSIN:	Green Bay.	Nov. 30-Dec. 7.	1	
	Milwaukee.	Nov. 29-Dec. 6.	4	

SMALLPOX—Foreign.

AUSTRIA:	Prague.	Nov. 8-22.	38	
BELGIUM:	Antwerp.	Nov. 8-22.	4	1
FRANCE:	Marseilles.	Oct. 1-31.	25	
	Paris.	Nov. 15-22.	1	
	Rheims.	Nov. 17-23.	1	1
GIBRALTAR:		Nov. 2-16.	3	
GREECE:	Athens.	Nov. 15-22.	1	
GREAT BRITAIN:	Bradford.	Nov. 1-15.	6	
	Dundee.	Nov. 15-22.	3	
	Leds.	Nov. 15-22.	17	1
	Liverpool.	Nov. 15-29.	58	1
	London.	Nov. 8-22.	8	
INDIA:	Bombay.	Nov. 4-11.	4	4
ITALY:	Palermo.	Nov. 8-15.	3	
MEXICO:	Nogales.	Nov. 8-29.	15	
RUSSIA:	Moscow.	Nov. 1-8.	3	
	Odessa.	Nov. 8-15.	4	
	Riga.	Sept. 1-30.	16	
	St. Petersburg.	Nov. 1-15.	10	2
	Warsaw.	Oct. 25-Nov. 1.	1	2

YELLOW FEVER.

COSTA RICA:	Port Limon.	Nov. 22-29.	2	1
DUTCH WEST INDIES:	Buenos Ayres.	Nov. 15.	1	
	On Dutch Schooner Trader.			
ECUADOR:	Guayaquil.	Nov. 15-22.	1	
MEXICO:	Tampico.	Nov. 22-29.	23	
	Vera Cruz.	Nov. 22-29.	14	2

CHOLERA.

DUTCH INDIES:	Java, Batavia.	Oct. 4-25.	83	76
INDIA:	Bombay.	Oct. 29-Nov. 4.	4	1
	Calcutta.	Oct. 25-Nov. 8.	8	54
JAPAN:	Nagasaki.	Nov. 1-10.	1	

PLAGUE—United States.

CALIFORNIA:	San Francisco.	Nov. 27.	1	1
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PLAGUE—Foreign.

INDIA:	Bombay.	Oct. 29-Nov. 11.	11	238
	Calcutta.	Oct. 25-Nov. 8.	8	18
	Karachi.	Oct. 26-Nov. 9.	9	31
JAPAN:	Yokohama.	Nov. 1-8.	8	1

The Philadelphia Medical Journal

A Weekly Journal Owned and Published by the Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession.

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The Editorial and Business Offices are at 1716 Chestnut St. Address all correspondence to

The Philadelphia Medical Journal, 1716 Chestnut St., Philadelphia, Pa.
See Advertising Page 8

VOL. X. NO. 26

DECEMBER 27, 1902

\$5.00 PER ANNUM

Major-General Leonard Wood's Address.—In a delightfully conversational manner, Major-General Leonard Wood described the work of the American Army in Cuba, at the meeting of the *American Academy of Political and Social Science* in Philadelphia, on December 13. Dr. Wood described the reorganization of the government of the Island, the establishment of the schools and the solution of important sanitary problems. We have often referred in these columns in terms of high praise to the remarkable results obtained in the administration of the Cuban Government, and we wish to congratulate the *American Academy* on its good fortune in securing the head of this government to tell, at first hand, the story of the four years' work.

At the conclusion of his address the former Governor-General of Cuba gave the following summary of the results of his work: "The Government was transferred as a going concern; all the public offices were filled with competent, well-trained employees; the island was free from debt and had a surplus of a million and a half dollars in the treasury; was possessed of a thoroughly trained and efficient personnel in all departments; completely equipped buildings for the transaction of public business; the administration of justice was free; habeas corpus had been put in force; police courts had been established; a new marriage law, on lines proposed by the Roman Catholic Bishop of Havana, giving equal rights to all denominations, was in operation; the people were governed in all municipalities by officials of their own choice, elected at the polls; trials in Cuban courts were as prompt as in any State of the Union, and life and property were absolutely safe; sanitary conditions were better than those existing in most parts of the United States; yellow fever had been eradicated from the island; modern systems of public education, including a university, high schools, and nearly 3,700 public schools, had been established; also well-organized departments of charities and public works; the island was well-supplied with hospitals and asylums; beggars were almost unknown,"

General Wood referred, in as much detail as he

well could before a lay audience, to the method of proving that yellow fever is transmitted by mosquitoes, and gave as his opinion that no discovery of greater importance had been made since Jenner discovered vaccination. It has already been well-said that, if no other result had followed the Spanish war, this discovery, made by the Army Commission, composed of Drs. Reed, Carroll and Lazear, would amply repay the cost of that war to our country. We believe that, if any other than a physician, like Dr. and General Wood, had been at the head of the Cuban Government, the experiments leading to this result would have been impossible, owing to want of encouragement.

The Lorenz Aftermath.—In looking a short distance into the future one can but wonder what will be the result of Professor Lorenz's visit to this country. His method of treating congenital dislocation of the hip may not always have brilliant results in the hands of those who witnessed or who have read of his excellent work in this condition. Undoubtedly, many looked with profit upon it, and in the future will do as good work as Lorenz, but we cannot refrain from sounding a warning against the indiscriminate practice of this method. It is accompanied with dangers, as the author of it acknowledges. Accidents have occurred to him at home; they have occurred to him in this country, and in wisely selected cases. Any one attempting this treatment must look well into the character of the parts to be manipulated, and must not expect at first to accomplish the results as easily as does Lorenz, but must remember that the latter's deftness comes with long experience and has been obtained after serious mishaps.

Lorenz reports more deaths from chloroform than occur from its use in any other operation in surgery—three deaths in 360 cases. It would seem, then, that the manipulation necessary to a proper replacement of the bone is accompanied with an enormous shock. A death on the table was barely averted in New York last week, while Lorenz was performing his operation. Aside from this danger

must be mentioned fracture of the femur, which occurred in one of Lorenz's cases in this country, and which has frequently resulted from the application of the method. Again, ruptures of the perineum and bloodvessels have resulted from its use in the hands even of Lorenz. If these unfortunate accidents have befallen an expert like Lorenz, what must not be the aftermath in the hands of the overzealous, the unskilled and the inexperienced? The method is fraught with dangers, and should only be undertaken by one who is prepared to combat them.

Hematemesis and Gastric Ulcer.—There are few symptoms more startling than sudden profuse internal hemorrhage. Physicians are not less susceptible to the dramatic element in disease than are the laity, and, consequently, all such forms of hemorrhage have received pretty thorough attention. One of the most severe, and, at the same time, the most dangerous, forms of hemorrhage is hematemesis. For a long time this was considered practically pathognomonic of ulcer; then a series of contributions reporting cases in which fatal hematemesis had occurred and no ulcer had been found at autopsy appeared, and to this group the term "parenchymatous hemorrhage" was given. Among the most notable contributions were those of Osler, who reported a series of cases of hemorrhage of this type associated with enlargement of the spleen, and he believed that, in some rather indefinite manner, the spleen was responsible for the hemorrhage.

More recently Tiegel has reported three cases apparently of parenchymatous hemorrhage, in all of which a minute ulcer was found that, upon microscopical examination, proved to have eroded a bloodvessel. In view of this he is rather skeptical about the existence of parenchymatous hemorrhage, and inclines to the belief that in one case, at least, of this condition the existence of a minute ulcer has been overlooked by the pathologist at autopsy. There can be no doubt that the early post mortem changes in the gastric mucous membrane, the mucus that often overlies it, and the rugæ into which it may be thrown by post mortem or ante mortem contraction, render this often only too possible. A discussion was recently held before the Medical Association of London upon the general subject of hematemesis, in the course of which Hale White declared that in many young women an oozing through the mucous membranes occurred, giving rise to hemorrhage, although ulcer was not present. This condition bore some relation to chlorosis and was benefited by iron. Wynter concurred with the opinion that many cases of hematemesis in young women were not due to ulcer,

basing his views largely upon the fact that so few cases die and that at subsequent autopsies scars were not found. Much learning may or may not be today a weariness to the flesh, but there is no doubt that it is confusing to the intelligence. There seems to be no satisfactory proof that parenchymatous hemorrhage does not occur, for the three cases reported by Tiegel, unless supported by considerable other testimony, cannot be sufficient to controvert the evidence of other clinical observers and pathological anatomists. Nevertheless, they will, at least, serve to make us much more careful in examining the mucous membrane in these so-called parenchymatous cases than we have hitherto been, and the mere absence of a distinct macroscopical lesion will not be sufficient to convince us that erosion of a vessel has not actually occurred.

The Treatment of Hematemesis.—The treatment of hematemesis has been a subject of much dispute. There are two reasons why a variety of therapeutic agents may be used in any particular case; one is that the disease is incurable, or not amenable to treatment, and, therefore, everything is tried in the course of time. The other is because the disease rapidly disappears of itself, and, with the usual fatuity of mankind, physicians ascribe to their own endeavors the results obtained by nature. To the latter class probably belong the majority of cases of gastric ulcer, particularly in young women. The disease is rarely fatal, indeed, rarely, severe, and, given rest, which is practically the essential feature to all forms of treatment, they rapidly recover.

Now the doctor must do something more than put his patient to bed, that is, unless he have the enthusiasm and courage of a Hilton, and, therefore, a variety of methods have been suggested, each lauded by its discoverer, and all apparently nearly of equal value, possibly because they are all very similar; that is to say, we put the patient to bed, we give the stomach rest, either by the employment exclusively of rectal feeding or by the use of an exclusive milk diet, possibly peptonized and given in small quantities, and then we administer various forms of styptics. There is, of course, some dispute as to whether rectal feeding should be employed or not. In the recent discussion of this subject before the Medical Society of London, there seemed to be considerable difference of opinion. Wynter believes that rectal feeding probably rather satisfies the mind than the body of the patient, and has discontinued its use. Dawson considered that it was only needed in exhausted patients. White and Halston, however, have found nutrient enemata of some value, although they are not enthusiastic. All believed in stopping

feeding by the mouth for at least a few days after the hemorrhage.

In regard to the styptics, there has been a great change of opinion since the early days. Iron and silver are still employed to some extent, but have been largely replaced by the newer styptics, suprarenal extract and gelatine. Either of these is supposed to be more efficient when applied directly to the mucous membrane of the stomach, and, therefore, may be given by the mouth. Ergot is still recommended by a few, and Fleiner claims excellent results for subnitrate of bismuth, although, as this requires the use of a stomach tube, there will be some hesitation in its employment in severe cases. Practically everyone is agreed regarding the utility of opium and its derivatives, the question being merely one of its administration. In the discussion above referred to Dawson advocated hypodermic administration. Yeo, premising that morphine injected beneath the skin might have a bad effect on a weak heart, preferred to give opium either by the stomach or rectum. Apparently there is good authority for many things.

The Present Status of the Pneumococcus and Antipneumococcic Serum.—The question of the recognition of pneumonia by the agglutination of the pneumococci, that is to say, a reaction similar to the Widal reaction in typhoid fever, is one that seems to have been settled in the negative, so far and its practical clinical value is concerned. There is no doubt that there are many things that would be useful to us if we could only perform them upon all our patients; if, for example, we had some satisfactory method of measuring the nitrogenous intake and excretion, it would probably prove of the greatest value to us in the treatment of our patients, especially those suffering from cachexia. If we could conveniently study some of the finer physical, chemical or vital reactions of the blood, of which agglutination is certainly one, in all cases of infectious disease, it would probably be of the greatest advantage, not merely in reference to diagnosis, but also in reference to prognosis and treatment. But the practical difficulties in the way in many cases (for example, plague) are very great, and the utility of the known methods is therefore limited.

Possibly one of the best illustrations of these conditions is pneumonia. The question of the agglutinability of the pneumococci is discussed by Washbourn in the *British Medical Journal*, November 29, 1902, p. 1704. Partly as a result of his own experiments, he reaches the usual conclusion that the amount of agglutinin formed is comparatively small, and that the susceptibility of different species of pneumococci varies very greatly. This only con-

firms the general opinion as to the uselessness of this test for clinical purposes. Washbourn reviews also the bactericidal action of various serums and has done a number of experiments himself upon this subject. This action varies greatly and, in some respects, entirely unaccountably. At any rate, it is too uncertain to enable us to use it with any hope of definite results in ordinary clinical practice, and we are reluctantly compelled to return to the expectant or alleged specific drug treatments still in general use.

Senatorial Ideas About Blood-Clots.—It is only because Senator Gallinger is in a public position to do some injury to the cause of scientific medicine, that he is entitled to the instructive second letter which Dr. Keen has sent to him. His position in the medical world would hardly entitle him to such grave consideration, because, by his own showing, Senator Gallinger, although he is an M. D., cannot have much of a place in the world of scientific medicine.

Dr. Keen's second letter to the senator from New Hampshire, which has already received wide distribution in the daily press, is properly devoted, not so much to a defence of vivisection, as to an exposition of the senator's ignorance of medical and surgical science. This state of Senator Gallinger's mind was in no wise so fully displayed as in what he said about the absorption of blood-clots on the brain. It seems a small matter to Senator Gallinger to have a blood-clot absorbed. Such a trifle as absorbing a blood-clot measuring nine tablespoonfuls, would not worry a legislative pathologist like Senator Gallinger. The thing to do, evidently, with such clots on the brain is to let them alone, and they will absorb themselves. It is needless to point out to the average medical reader the scientific acumen of a man who announces such a doctrine.

We have always been an advocate of the "doctor in politics," but our advocacy has been with the distinct understanding that the doctor in politics should try faithfully to represent his own profession and the claims of scientific medicine. In order to do this, it is needless to say, he should at least keep himself informed about some of the more important phases of medical progress.

A Criticism of Loeb.—In the *American Journal of Physiology*, Messrs. F. P. Gorham and R. W. Tower publish a very destructive criticism of Professor Loeb's recent work on the eggs of the sea urchin. It may be recalled that Loeb created something of a sensation by announcing that he could prolong the life of the sea urchin's eggs by the addition of a small quantity of cyanide of potassium to the water,

and, also, that he had succeeded in hatching these eggs, even though they had not been fertilized. Of course, biologists have long been familiar with the doctrine of parthenogenesis, according to which the apparently unfertilized eggs in certain species of the hymenoptera (bees and ants) are hatched out, but Loeb's alleged demonstration was even more astounding, for the impression sought to be conveyed was that the sea urchin's unfertilized egg could be made to hatch by merely acting upon it with a chemical substance. The whole thing was mysterious, unintelligible and expressed in language none too lucid and convincing.

Messrs. Gorham and Tower say that, in their experiments at Woods Holl, they have prolonged the life of the sea urchin's egg even longer than Loeb had done, and merely by using sterile sea water; and they conclude that Loeb's cyanide of potassium had merely acted as a germicide, and had destroyed the bacterial bodies that otherwise would have destroyed the eggs.

Doubt is freely expressed in some quarters about Loeb's having hatched unfertilized eggs, and the belief is expressed that he had not excluded the fertilizing principle from the water. Loeb, in fact, is in the position formerly occupied by Bastian and other supporters of the doctrine of spontaneous generation. Pasteur demolished their argument by showing that their test-tubes had not been sterilized, and that bacteria developed in them in the ordinary course of nature.

If Professor Loeb's claims shall be proved erroneous, it will be only another instance of defective observation leading to premature conclusions on the part of a somewhat too enthusiastic experimenter.

Is Adverse Criticism a Libel?—According to the *Chicago Evening Post*, an English jury recently awarded damages to the manager of a theater against a newspaper for a severe criticism which the latter had published of a play. The criticism had evidently been one of the kind that "rips a book up the back," and the manager rebelled and brought suit. The jury, with Dogberry sense of justice, thought that the manager had suffered in his business, and gave him money for it.

Here is food for thought. If a theatrical manager can recover damages for an adverse criticism, why cannot an aggrieved author do so, too? And if an author can do so, why cannot a scientist or an investigator or, in fact, anybody who attempts to palm off the product of his brain on an unsuspecting public? In the case of scientific books (especially medical books), we imagine it would not be the author whose feelings would be so much wounded

in his pocket as it would be the publisher; and some wrathful publisher might so far forget himself as to bring a suit for libel. We almost tremble to suggest such a thing, and hope sincerely that no publisher will read this paragraph.

The inquiry naturally arises, where would such a thing stop? It is a well-known fact that scientific men pitch into one another's opinions with the freedom of a Donnybrook fair. The slogan appears to be—when you see a head, hit it! Absolute freedom of criticism is the guardian of science, just as it always has been the guardian of letters and of art. Is some law of libel, conceived in the modern utilitarian commercial spirit, to step in and destroy this guarantee of free speech? It would be interesting to reflect what the result would be, if all forms of adverse criticism are to be construed by our courts as libellous.

We judge that there is something of a reaction abroad against the license of irresponsible criticism that now abounds in the press. But let us hope that the day is far distant when a book-reviewer cannot have his fling, or a scientist cannot have the right to annihilate his rival, without fear of the law of libel.

Current Comment.

DR. PARDEE'S 'OPPORTUNITY.'

When Dr. Pardee shall be inducted into office, he will find himself confronted with the duty of putting a stop to the policy of falsification and attempted concealment that has disgraced the administration of Governor Gage. Without the governor-elect's co-operation and connivance that policy cannot continue. It will be Dr. Pardee's duty to reverse the course pursued by the State Board of Health, abandoning lying and vilification, and taking prompt and vigorous measures to stamp out plague in San Francisco. That is the only way to get rid of the trouble, and at the same time to inspire confidence in other States and abroad that California is capable of grappling with this dangerous problem, as well as honest and intelligent enough to tell the truth about it. This new departure would involve a stultification of Governor Gage, but his successor is in no way responsible for the sins or blunders of the present administration. The way Dr. Pardee shall treat this plague matter will give the public a pretty good insight into the sort of administration that may be expected from him during the next four years.—*Sacramento Bee*.

KIPLING ON DOCTORS.

Rudyard Kipling, at the annual dinner of the Harveian society of London, replied to the toast of "The Visitors." He said he had been thrown much in the company of medical men in all parts of the world, and he admired them. He had seen them going to certain death, with no hope of reward, because it was "business." He had also seen them handling cholera and smallpox and, when dying therefrom, wiring for a substitute. He had seen them in Vermont manage a practice twenty miles in each direction, driving horses through eight feet of snow to attend an operation ten miles away, and digging their horses out of the snow and proceeding. "It was one of the proudest things of my life," he said, "to have been associated with real fighting men of this class."

—*Medical Age*.

DR. KEEN VERSUS SENATOR GALLINGER.

According to Senator Gallinger and the New England Anti-Vivisection Society, Dr. Keen, of Philadelphia, did not know what he was talking about when he ascribed his success in operating on Midshipman Aiken to the knowledge he had gained from animal experimentation; but Mr. Aiken has now returned to his home, practically as well as ever, and Dr. Keen's opinion is entitled to weight. Whether Mr. Aiken would not have recovered without the operation may be a matter of doubt to the anti-vivisectionists, but Dr. Keen says that if it had not been performed the patient would have died. Impartial people will conclude that he knows at least as much about the case as most other people, and that it would be unfair not to record the case in favor of vivisection.

—*The Providence Journal.*

Correspondence.

CHEMICAL NOMENCLATURE.

By GEORGE RICHTER, of St. Louis, Mo.

To the Editor of the Philadelphia Medical Journal:

It was with great surprise that I read in a purely scientific paper, like the *Philadelphia Medical Journal*, of December 6, the editorial comment headed "A Word About Nomenclature," referring to the terms used in organic chemistry, like: Di-phenetyl-mono-phenylguanidinchlorhydrate,—found in a German periodical. Perhaps it would be better if medical students did learn a little more about organic chemistry, and, at least, understand how such words are built and what their meaning is. A word like the one quoted tells the chemist with great exactness the whole character of that compound, its properties, its relation to other bodies, its origin and the theoretical construction of its molecules; all of which could be explained only by a long narrative accompanied by a diagram. The absolutely unlimited number of organic compounds would make it utterly impossible to coin an arbitrary word for each substance, and it would be a hopeless task to commit them to memory, as such words would be meaningless otherwise. The chemical terms employed now, however, are full of meaning, as they are actually a whole story contracted into one line, perfectly intelligible for those who have studied organic chemistry.

Reviews.

A Text-Book of Pathology and Pathological Anatomy. By Dr. Hans Schmaus, Extraordinary Professor and First Assistant in the Pathological Institute, Munich. Translated from the Sixth German Edition by A. E. Thayer, M. D., Instructor in Pathology in the Cornell University Medical College, New York. Edited, with additions, by James Ewing, M. D., Professor of Pathology in the Cornell University Medical College, New York. Illustrated with 351 Engravings, including 35 Colored Insert Plates. Lea Brothers & Co., Philadelphia and New York.

A text-book for students should meet the following requirements: It should be concise, authoritative, comprehensive and up-to-date. The large, heavy, padded works are not generally favored by students for the simple reason that they have no time to study them, even if they were able to overcome the drowsiness which overtakes one if compelled to peruse long pages of discussion and bibliography on a subject which must be studied for the "exam." For this reason, the well-known text-book of Dr. Schmaus, which has reached its sixth edition in Germany, will no doubt receive a welcome reception in this country, although it will probably have to struggle against odds in overcoming the general favor entertained by students and teachers towards "Green's Pathology," one of those books

which seem destined to live forever. Dr. Schmaus's book, however, has some advantages in the arrangement, inasmuch as the general pathology is treated entirely from the special pathology, an arrangement which is favored by modern teachers and more adapted to the present graded course in pathology. Part I treats of disorders of circulation, retrogressive processes, progressive processes, congenital anomalies and deformities, parasites and general diseases from disturbed functions. Part II treats of diseases of the circulatory apparatus, spleen, lymphatics and marrow, the digestive organs, the urinary system, the nervous system, organs of locomotion, the genital organs and the skin. The arrangement of chapter III, in which the discussion of repair in general is followed successively by a consideration of hypertrophy, inflammation, infectious granulomata and tumors, has much to recommend it, as it forms a continuous and comprehensive presentation of the subject on progressive tissue changes. The classification of tumors into homologous and heterologous is perhaps too simple to satisfy the taste of some of our pathologists, but, in view of our meager knowledge concerning the nature of these growths, it is after all as good as any and is much more readily grasped and retained by the student. The illustrations, of which there are many, are of German make and surpass as usual our domestic product. However, the chapter on bacteria is illustrated by microphotographs taken from Park's text-book on bacteriology, this adding greatly to the value of the chapter.

The only fault to be found with the book is the translation, which does not quite come up to the high standard of the text. The diction is often too heavy, the translation in places too literal and the idiomatic expressions not handled with sufficient skill. Here is one of the many instances of German-English: "The infarct itself remains wholly anemic (see Ischemia), and its nutrition ceases, its death is inevitable, and the name infarct, originally meaning hemorrhagic infiltration, is coupled with the adjective anemic to distinguish this variety, the embolic anemic or white infarct." Again, the headings to the chapter divisions are given sometimes in English as "Chronic Fibrous Endocarditis," and sometimes in Latin, as "Endocarditis Ulcerosa, seu Diphtheritica." A flaw of minor importance is the spelling of such words as hyaline in some places with, and in other without, the final *e*. These shortcomings, however, detract but little from the intrinsic value of the book and will no doubt be remedied in future English editions. [A. R.]

Grundriss der pathologischen Anatomie für Studierende und Aerzte. Von Professor Dr. Langerhaus, Prosector am Städtischen Krankenhaus Moabit in Berlin. Dritte vermehrte und verbesserte Auflage mit 231 Abbildungen. Berlin, 1902. Verlag von S. Karger.

The impetus given to the study of cellular pathology by Virchow has continued to receive its profoundest response in Germany. Not only is Germany the natural Mecca for instruction in pathology, but it is also the country in which text-books of pathology have the greatest circulation. The increase in text-books upon pathology has come especially within the last decade, and the hold that the subject has upon students and practitioners of medicine is shown by the variety of published works upon pathology and the number of new editions that have appeared.

The volume before us is one of the favored text-books, having gone through three editions in ten years. In scope it is intermediate between such exhaustive treatises as Orth's or Ziegler's text-books and the compendia of pathology, and yet it is designed to cover the field of general and special pathology. Prof. Langerhaus is a teacher of international reputation, and a book from his pen is therefore assured of an authoritative position. In the present instance he has endeavored to keep within definite limits of size and treatment which, while well adapted for the students, is less satisfactory for use as a work of reference. The absence of all bibliography further limits its usefulness except as a preparation for lectures and examinations and for immediate reference to the essence of pathological phenomena.

The arrangement of the matter is excellent. The sections are carefully compiled, and the marginal headings are

of great assistance in facilitating ready reference. The illustrations are fairly executed only, but their choice, on the other hand, indicates careful and incisive discrimination.

Taken altogether, therefore, the volume may be judged as one of the best of its class and deserving of a continuance of the favor with which the earlier editions have been received. [S. F.]

The Principles and Practice of Gynecology for Students and Practitioners. By E. C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School, etc. Third Edition, revised and enlarged, with 474 illustrations. Lea Brothers & Company, Philadelphia and New York. 1902. Pages, 761.

Dr. Dudley has brought his excellent work up to the third edition. The present volume, while maintaining the original arrangement of subject matter, has been largely rewritten, and much that is new and modern is introduced. A large number of minor manipulations and most of the major and minor operations have been illustrated with a new series of drawings, to show the successive stages of the procedures. Especially is this true of the operations of abdominal and vaginal hysterectomy, hysteromyomectomy and ovariectomy. A pathological basis has been adopted in the classification of the various subjects, so that the reader does not find the entire pathology of an organ in one portion of the book. It is a matter of opinion whether such an arrangement is more to be desired than a classification anatomically. The illustrations are numerous and well selected, and the text clear and as concise as the numerous important subjects will permit. It is questionable whether peritoneal irrigation with drainage through the lymphatics of the diaphragm—the method advocated by a limited number of operators within recent years—has attained sufficient status to warrant its recommendation in general abdominal surgery. As Dr. Dudley states, the majority of abdominal sections require no drainage, and in those cases in which a pelvic infection is demonstrated, the abdominal method of drainage through the diaphragm exposes the patient to the danger of general peritoneal infection. This was the view adopted a few years ago in the gynecological section of the American Medical Association. Dr. Dudley has shown commendable discretion in his selection of the numerous plastic operations that have been recently proposed. The book is an excellent presentation of modern gynecological science. [W. A. N. D.]

Diseases of the Rectum and Anus, Designed for Students and Practitioners of Medicine. By Samuel G. Grant, M. D., LL. D., Professor of Rectal and Anal Surgery, New York Post-Graduate Medical School and Hospital, etc., etc. Second edition, rewritten and enlarged. F. A. Davis & Co., Philadelphia, 1902.

The second edition of Grant's work on Diseases of the Rectum and Anus shows a number of improvements and changes. The chapters on Cancer and Colostomy, which were written by Allingham in the first edition, have been rewritten and extended by the author. Three new chapters have also been added, namely: "Diseases, Injuries and Tumors of the Coccyx," "Venereal Diseases of the Anorectal Region" and "Rectocolonic Enteroliths and Concretions." Reference to the subject under discussion is greatly facilitated by an excellent context and index.

Appended to each chapter is a list of references to the literature of the subject discussed. A most casual glance at the pages and arrangement shows that the author has devoted much time and thought to his work.

The illustrations are numerous, particularly well chosen and add much to the value of the book. In respect to the illustrations it can be said that nothing more could be desired.

In discussing the anatomy of the rectum and anus Grant quotes extensively from the literature on "rectal valves," giving the views of all workers in this regard, but expresses a personal conviction strengthened by a number of experiments that such valves do exist and do produce obstinate constipation. The results of his researches confirm the experiments of Houston, Otis, Martin and Pennington.

Numerous illustrations are presented which represent these valves both as to their macroscopical and microscopical appearance.

The only criticism of this book we can offer in a general way is to say that the author has probably included too much unnecessary material, such as reports of cases, extracts from the writings of others, etc., but this is, of course, a matter of individual opinion. The work is a good one, and the author shows great fairness in the presentation of the literature of the subject. Probably no subject is as much neglected by the general practitioner as that of rectal diseases. The numerous neglected conditions of this kind which come before the surgeon are sufficient proof of this statement. We heartily commend this book to the consideration, not only of surgeons, but particularly to that of general practitioners.

The printing, the paper and the illustrations are good, but the binding, we feel, is hardly in keeping with these. [J. H. G.]

Die Röntgenstrahlen im Dienste der Chirurgie. By Dr. Carl Beck, Professor of Surgery, New York, N. Y. München, 1902. Seitz & Schauer.

This work consists of two volumes, the first of which is made up entirely of text, and the second of unbound illustrations. The first part of the text consists of a description of the Röntgen ray and the armamentarium necessary for its use in surgery. The technique is then described. Between this portion of the book and the chapters which follow and which deal with the use of the Röntgen ray in different portions of the body, is placed an alphabetical list of authors and references. It is notable that under the author's own name appear 54 references, whereas under no other name, excepting that of Röntgen, who is credited with 4, are there more than 2 references given.

Beck's work in this line is well known to the medical profession, and we are glad to see the result of his work put before the German reading world.

In our opinion it is a mistake to have separated the illustrations from the text and particularly to have placed these in a separate cover and unbound. They consist, excepting a few photographs, of radiographs presenting the use of the X-ray in diagnosing various pathological conditions. The reviewer is disappointed to find among these illustrations none representing the effect of the X-ray upon new growth. [J. H. G.]

Operations-Vademecum für den praktischen Arzt. Von Dr. Edmund Leser, Professor an der Universität Halle a. S.: Mitglied der Kaiserlichen Leopoldino-Carolinischen Deutschen Akademie der Naturforscher. Berlin: S. Karger, 1902.

The volume before us is a second edition, in which the author states he has made considerable changes in the illustrations, which are all particularly good. The book deals with operations of particular interest to the practising physician, for whose benefit the book was primarily written. Such subjects as anesthesia, both local and general, dressing of wounds, and arrest of hemorrhage, as well as many of the operations of emergency, are well presented. A list of the various instruments needed for each operation is given. The book is somewhat on the style of the American minor surgeries, excepting that only operations are dealt with. We feel that the work well meets the object of the author, that of supplying the practising physician, particularly in the country and small towns, with an immediate, practical help. Although hardly calling for a translation into English, we feel that the work must fulfill a demand among German-speaking practitioners. [J. H. G.]

Clinical Methods. By Hutchinson and Raing. Published by W. T. Keener & Company, Chicago, Ill.

This small volume of 612 pages is a very practical work, especially for the beginner in medicine. The language is clean and terse and will appeal to every student. The illustrations are useful and very well executed. We can safely recommend this book as a guide to those wishing a brief outline in clinical methods. [J. L. S.]

Laboratory of the Philadelphia Medical Journal.

In Charge of HENRY LEFFMANN, M. D.,
of Philadelphia.

Chlorine Disinfectants.

For many purposes of household disinfection, the loose combinations of chlorine, known commonly as chloride of lime and chloride of soda, respectively, are much used and are satisfactory. Chemists regard these substances as hypochlorites, but the exact formulæ are not established, and the official terms "chlorinated lime" and "chlorinated soda" are probably best for medical use. Chlorinated lime is manufactured in great quantity for industrial purposes, and is valued by the amount of available chlorine it contains, which, in a good article, will be not less than 35 per cent. For retail sales by druggists this material is put up in pasteboard packages, sealed with pitch. This restrains deterioration, but cannot wholly prevent it, as the compound is unstable. Chlorinated soda is sold in solution only, and is prepared by mixing solutions of chlorinated lime and sodium carbonate. Some difference exists in the proportions used. The present U. S. Pharmacopeia requires the use of excess of sodium carbonate, so that the resulting solution shall be free from calcium. This condition gives the highest efficiency and keeping qualities. In spite of the fact that the official method has been in vogue for several years, some manufacturers still use an insufficient amount of sodium carbonate and thus furnish a solution containing notable amounts of calcium. The official (U. S. P.) requirements are that chlorinated lime shall contain not less than 35 per cent. available chlorine, and chlorinated soda not less than 2.6 per cent.

As it is interesting to determine how far the Pharmacopeia requirements are maintained in an article not under public supervision, the following results of examination of samples obtained in original packages from druggists of this city are presented:

No.	Substance.	Available Chlorine.
1	Chlorinated lime	13.5
2	"	17.0
3	"	30.5
4	"	35.0
5	"	34.0
6	Chlorinated soda	1.2
7	"	2.8 (contains calcium.)
8	"	2.0
9	"	2.5

Nos. 4 and 5 were from commercial wholesale consignments, the latter having been imported from Europe. It will be seen that only one of the retail packages yielded results anywhere near the Pharmacopeia requirement. This brand is known as "Red Riding Hood." Although it is also below the standard, it must be borne in mind that the original material may not be very good and deterioration is unavoidable. Nos. 6 and 7 represent the product of 2 of the most prominent manufacturers of drugs in this part of the country. It will be seen that the quality differs very much and that each fails to meet all requirements. No. 6 is much below strength and No. 7 contains a notable amount of calcium, (about one per cent.) The retail price of each per bottle is the same, 25 cents, but the amount of No. 6 is one quart, and of No. 7 one pint. The cost per unit of available chlorine is, therefore, about the same.

As these disinfectants are of service when of good quality and are much used by physicians and nurses, it is a matter

of regret that so large a portion of the commercial samples fall far short in quality. The process of making chlorinated soda is simple. Laboratory experiment has shown that it is possible always to obtain a solution free from calcium and containing nearly 3 per cent. of available chlorine. It would be better if retail druggists would either prepare the solution for themselves in moderate amounts or insist that the supply houses should furnish a product that conforms strictly to the official requirements.

Headache Powders.

The use of these drugs seems to have become a prominent feature of American life. Nearly every druggist has a formula either based on some physician's prescription or collated from current literature. The preparations are dispensed without hesitation or knowledge of the cause of the headache, and without regard to possible idiosyncrasy to the powerful drugs used. Information obtained in a recent inquiry and analytical examination of these powders give the following data, which show that, while many different formulæ are used, the powerful acetanilid is the most common. Antipyrine and phenacetine are but little used. The sole reason for the employment of acetanilid is its cheapness. Antipyrine costs about 35 cents per ounce, phenacetine somewhat more, while acetanilid costs only 28 cents per pound.

The following are some of the formulæ:

- (1) Phenacetine, 5 grains; caffeine, 1 grain.
- (2) Acetanilid, 3.5 grains; baking soda, 5 grains; caffeine, 0.5 grains; tartaric acid, 0.5.
- (3) Acetanilid, 2 grains; caffeine citrate and camphor monobromate, each 0.5 grain.

No. 1 is sold at a drug store in the business quarter of the city, and will represent what the banker or broker will be likely to get when the stock market has a disquieting action on the brain. No. 2 is an attempt to imitate a well-known proprietary "pain-killer." No. 3 is a formula used by manufacturers of the "migraine tablet."

The Etiology of Pneumococcic Peritonitis.—In the *Correspondenzblatt für Schweizer Aerzte* (August 1, 1902), de Quervain reports 2 cases of peritonitis in children, caused by pneumococci, as was shown by bacteriological examination. In one there was true pneumococcic appendicitis. When meningitis follows, it is the result of the peritonitis. Pneumococcic peritonitis may be secondary or primary. In the clinically secondary form the mode of infection may be through the upper respiratory and digestive tract, the lungs and pleura, the gastro-intestinal canal (with ulcer, traumatism, appendicitis or enteritis), or the female genitalia. Those cases in which no previous localization of the infection can be found are considered primary. The literature shows but 40 cases of pneumococcic peritonitis, 29 of them in children. In many cases called primary, pneumococcic appendicitis is the first localization of the infectious process. [M. O.]

The Gelatinous Urine of Rabbits.—In experimenting on rabbits one frequently notices that the urine turns into a jelly-like mass as soon as voided. The nature of this change has never been definitely established, although it is assumed that it is due to a coagulation of mucin or other albuminoid body. Recently, Kravkoff (*Russki Vrach*, No. 19, 1902) made the very interesting discovery that the gelatinization of the urine is due to a precipitation of calcium phosphates. He was able to dissolve the jelly-like mass in acetic acid, precipitate it with alkalis and obtain all other reactions for the above salt. This observation is of considerable importance to workers on metabolism who depend largely on the experimental animals (rabbits). It shows that in all such cases it is necessary to dissolve the gelatinous mass before a determination of the phosphate is made. [A. R.]

American News and Notes.

PHILADELPHIA AND PENNSYLVANIA.

Dr. Keen Defends Vivisection Again.—Dr. Keen has written a second letter to Senator Gallinger, in response to his reply to the communication of Dr. Keen, published in the *Philadelphia Medical Journal*, December 13, page 902, in opposition to bills to restrict the practice of vivisection. Dr. Keen states that, while he has seen Senator Gallinger's letter to him in the newspapers, he never received the letter. He repeats that the case of the midshipman who was saved by his recent operation was an illustration of the benefits of vivisection. While Dr. Keen has performed but few experiments himself, he is using the result of such experiments daily, to the great benefit of his patients. He denies the insinuation that his letter was to advertise himself, and closes with an argument demonstrating the lack of wisdom in the legislation proposed.

Medical Education.—The report of the Medical Council of Pennsylvania, for the year ending March 1, 1902, has just appeared. This shows the gratifying progress made in medical education since the passing of the act of 1893, regulating the practice of medicine in Pennsylvania, extending the course of study to 4 terms, of over 6 months each. There has also been an advance in the standard of preliminary education, the minimum requirement now being a High School diploma. Since the first examinations, held in June, 1894, 4,202 physicians have come up for examination, 3,454 of them passing successfully. Licenses have also been issued to 65 physicians holding New York licenses and to 122 holding New Jersey licenses.

Infectious Diseases in Johnstown, Pa.—Four new cases of smallpox developed December 20, making 24 cases in the Emergency Hospital. An epidemic of diphtheria is also reported in Conemaugh, where the public schools have been closed.

Smallpox in Philadelphia.—During the week ending December 20, 15 new cases of smallpox were reported, 3 in the 14th. and 28th. wards, 2 in the 7th. and 15th. wards and one in the 4th., 10th., 16th., 20th. and 33rd. wards. There were, however, no deaths from smallpox reported. There was some decrease in the number of typhoid fever cases reported, a marked decrease in the number of diphtheria cases reported and a slight increase in the number of scarlet fever cases reported. On account of the smallpox epidemic, most of the prisons have been closed to visitors. For the year ending December 1, 5,867 cases of smallpox, with 446 deaths, occurred in the State of Pennsylvania. Eight more cases of smallpox have been discovered between December 20 and 22.

Philadelphia Hospital.—In the announcement made in these columns, December 20, several errors occurred. The contract for the erection of 6 glass pavilions for consumptive patients was awarded December 18, the total cost to be \$108,894. The award is subject to Councils making the required appropriation for the work. As we announced, the original intention was to build 8 pavilions.

Oil City Hospital.—A patient entered the hospital with appendicitis last spring. After having been successfully operated upon, he returned to his home in Franklin. Soon after his arrival home, he developed typhoid fever and was seriously ill for several weeks. He has now brought suit against the Oil City Hospital for \$25,000 damages, claiming that he was placed in a room at the hospital, just vacated by a typhoid fever patient; that he used the bed clothing already used by the typhoid fever patient; and that the negligence of the hospital in not disinfecting the room and changing the bed clothing, was responsible for his having contracted typhoid fever.

Bacteriological Laboratory in New Castle.—The Municipal Bacteriological Laboratory, to be erected by the city of New Castle, is said to be the first of the kind in the country. It is expected that all food stuffs on the market will be examined and these not proving satisfactory will be excluded.

Home for Convalescent Children, Gwynedd.—This institution, with accommodations for 25 children, will be opened about February 15. The 2-story stone and frame building is already completed. Children ranging from 3 to 10 years of age will be removed from the larger hospitals of

the city for convalescence from hip disease, typhoid fever, etc.

Rush Hospital for Consumptives.—At the annual meeting, held December 15, it was announced that this institution was greatly in need of funds for enlarging the present building. Of the 193 patients admitted during the year, more than three quarters showed marked improvement. The same result was reported from the country branch at Malvern.

Bequests.—By the will of the late Caroline J. Freudenberger, of Tamaqua, \$2,500 were left to the German Hospital, Philadelphia; \$1,000 to the Pottsville Hospital, and \$500 to the Southern Home for Aged Women, Philadelphia.

NEW YORK AND NEW JERSEY.

Lying-in Hospital, New York City.—In the annual report of the Society of the Lying-in Hospital attention is called to the need of an endowment fund to permit the accommodation of more patients. Thus far there have been 160 a month, while the ward in use only contains 62 beds. Statistics of the Health Department show 51,688 births in Manhattan in one year, an average of one child born every 10 minutes. The total births among patients in the house and the out-door department were 3344. In order to open more wards, a larger endowment fund is absolutely necessary.

Smallpox in Camden, N. J.—The Municipal Hospital was re-opened December 19, to admit another patient with smallpox. This was the first case found in several months. Two more cases were discovered December 20, and were also removed to the hospital.

Eastern Medical Society, New York City.—At the meeting held December 12, the following officers were elected for the ensuing year: President, Dr. L. J. Ladinski; vice-presidents, Drs. E. K. Browd and A. Hymanson; secretary, Dr. Albert Miller, and treasurer, Dr. Bernard Gordon.

New York Academy of Medicine.—Dr. J. C. Hemmeter, professor of medicine in the University of Maryland, Baltimore, delivered an address upon intestinal indigestion before the New York Academy of Medicine, December 16.

NEW ENGLAND.

New Haven Medical Association.—The one hundredth anniversary of this organization will be celebrated at New Haven, Conn., January 5 and 6, 1903. Addresses will be delivered by Dr. William Osler, of Baltimore, and Dr. Francis Bacon, of New Haven. A reception will be given in their honor, January 5, and the annual dinner of the association will occur January 6. The committee of arrangements consists of Dr. Eliot, Dr. H. L. Swain and Dr. R. S. Goodwin, Jr.

Dr. Lorenz in Boston.—Dr. Adolf Lorenz, of Vienna, arrived in Boston, December 22, after having spent over a week in New York. He held clinics at the Children's Hospital, December 22 and 23, visited most of the hospitals in Boston, and left December 24, to spend Christmas in New York.

New Haven County Anti-Tuberculosis Association.—This association proposes to build a modern tuberculosis hospital on Woodbridge Heights, several miles north of New Haven, on some of the highest ground in Connecticut. Three 8-room cottages will be built shortly. It is hoped that the institution will be completed in less than a year.

Tuberculosis Wing, Long Island Hospital, Boston.—The new tuberculosis wing of the Boston Pauper Institutions Department on Long Island has just been opened. It contains 51 beds for men, and cost \$40,000.

Bequests.—By the will of the late Mrs. M. L. Greenleaf, of Cambridge, \$5000 were left to St. Luke's Home for Convalescents, Roxbury; to the Kindergarten of the Perkins Institute for the Blind; to the Cambridge Hospital; to the Main General Hospital, and to the Cambridge Home for Aged People. Two thousand dollars were left to each of several other charities.

WESTERN STATES.

Push Medical College.—The new building, called Senn Hall, was dedicated, December 17, Sir William Hingston, of Laval University, Montreal, delivering the dedicatory address. An address was also made by President Harper, of the University of Chicago.

Smallpox in the West.—Six mail clerks on trains running

between New York and Chicago have been attacked by smallpox, one of them having died in Cleveland.—A car-load of passengers on a train from Ripon, which reached Milwaukee December 13, was vaccinated by officials of the Milwaukee Health Department before being allowed to leave the train, because a passenger from Oshkosh was found suffering from smallpox. The smoking car and baggage car were thoroughly fumigated.—On account of the widespread epidemic of smallpox in and near Cascade, Mont., all public meetings have been prohibited by the Board of Health of Cascade county.

Scurvy on Shipboard.—The British ship *Windsor Park*, which left San Francisco, May 19, arrived in England with 3 men dead from scurvy. The disease developed soon after leaving San Francisco, and, on reaching England, 8 men were seriously ill. The trip took 189 days.

A New Method of Preparing Potassium Cyanide.—Dr. Edmund O'Neill, professor of chemistry in the University of California, now makes potassium cyanide from atmospheric air, using a simple apparatus by which gas from petroleum or coal is mixed with atmospheric air, four-fifths of which is nitrogen. Subject to the influence of an electric arc, hydrocyanic acid results; this, when treated with potash, becomes potassium cyanide. The cost of the material is small and the energy necessary to produce the combination is inexpensive. Under present methods it costs 25 cents a pound to produce potassium cyanide; according to Professor O'Neill's, it costs 5 cents a pound.

SOUTHERN STATES.

Pure Food Bill.—The House of Representatives passed the pure food bill December 19. This bill prohibits interstate commerce in any article of food or drug which is adulterated or misbranded. Drugs recognized by the United States Pharmacopoeia must have the standard of strength, quality and purity determined by the tests laid down in the Pharmacopoeia. Confectionery must not contain terra alba, barytes, talc, chrome yellow or other mineral substances which are poisonous, colors or flavors. Food must not have with it any substance which lowers or injuriously affects its quality, it should not be mixed, colored or stained; it must be properly labeled, and it should not contain any filthy, decomposed, putrid animal or vegetable substance, any portion of an animal unfit for food or of an animal that has died otherwise than by slaughter. All such articles will be confiscated by law. Besides, it is also provided that such goods shall not be sold in any State contrary to the laws thereof.

To Fight Tuberculosis in Cattle.—A petition was filed in the Superior Court at Atlanta, Ga., December 17, asking for a charter, incorporating the American Congress on Tuberculosis. The purpose of the congress is to promote discussion in order that means may be devised to better the conditions of cows suffering from tuberculosis. Another object of the congress is to assist in organizing a world's congress on tuberculosis. Among the petitioners are Drs. G. Brown, Georgia; H. D. Holton, Vermont; D. Lewis, New York; J. A. Eagan, Illinois; F. Paschal, Texas; I. A. Watson, New Hampshire, and E. J. Barrack and P. H. Bryce, Canada.

Baltimore County Medical Association.—At the meeting, held December 18, a paper on recent work on rheumatism was read by Dr. J. E. Gichner. Cases of eclampsia were reported by Drs. Naylor, Smart, Gichner, Massenburg, Jarrett and Todd.

Uncinariasis.—A patient with this disease is now under treatment at the Johns Hopkins Hospital, Baltimore. Dr. C. W. Stiles, the discoverer of the disease, head of the Government Bureau of Zoology, Washington, came to Baltimore last week, to discuss this case with Dr. Osler. The only other case reported was found at the Johns Hopkins Hospital, December, 1901. Dr. Stiles has asked the Geological Survey Department to prepare a map of the sand belt districts of the Southern States, where this disease flourishes. Literature bearing upon the disease, its origin, cause, symptoms, prevention and treatment will be sent to all physicians in those districts. As the disease is easily cured, it is believed that the number of cases may be greatly decreased in this manner.

Cave Air for Consumption.—The air of the limestone caves at Luray, Va., is said to be so remarkably free from

germs and dust that it is almost equal to mountain air in its effect on consumptives, and a sanatorium has been built at Luray, where each tenant receives the supply of air direct from the caves.

Hospital at Elkton, Md.—A public meeting was held December 17 in the interest of establishing the Cecil County Hospital at Elkton. Resolutions were adopted stating that the hospital was a public necessity, and a board of incorporators was appointed. It is hoped that a hospital will be erected at Elkton for treating patients in Cecil county, just as one was erected recently at Cambridge for patients from Dorchester county, and at Frederick for patients from Frederick county.

MISCELLANY.

American Medical Association.—The Committee on Scientific Research is prepared to receive applications from gentlemen engaged in scientific research bearing upon practical medicine or surgery. Five grants of \$100 each will be given in support of such investigation. The results of the work in each case must be presented, either in abstract or complete, before one of the sections of the American Medical Association, preferably the Section on Pathology, at the next annual meeting to be held in New Orleans, May, 1903. All applications should be accompanied by a full statement of the applicant's previous work and training and his present facilities, as well as by a sufficient indication of the proposed or partly completed work, to enable the Committee to decide upon the advisability of making a grant. The committee consists of Dr. Alfred Stengel, Philadelphia, chairman; Dr. William Osler, Baltimore, and Dr. Ludwig Hektoen, Chicago.

Bubonic Plague in Honolulu.—Recent investigations show that food shipped to Honolulu from Japan and China via San Francisco, was responsible for the cases of plague which recently appeared there. The constant recurrence of cases at irregular intervals has given much concern, and the discovery of the cause of the disease has been the source of much satisfaction. While Honolulu is seldom free from plague more than 5 or 6 months of the year, the disease never becomes epidemic. It is confined entirely to the Chinese, Japanese and, in a few cases, the native Hawaiians. No white man has been affected by plague for many years, since the disease spreads only when proper precautions have not been taken. All incoming vessels from Oriental ports are closely watched and placed in quarantine until the examination is completed. On this account medical men believe that the disease was not introduced by steamers or passengers from the Orient. Only recently, however, has the true cause of infection been found. The disease affected a number of Japanese on nearby plantations, who died in the hospital at Honolulu. Japanese groceries found in the house of one of these patients showed germs of the plague upon microscopical examination. Further examination of other Oriental food stuffs also showed plague germs. This food, it was learned, had been imported at San Francisco and reshipped to Honolulu. It is now to be hoped that the disease may be thoroughly stamped out, since the cause has, at last, been discovered.

Music in the Treatment of Hemorrhage.—An army doctor has noticed that, when a wounded soldier was taken to within easy hearing of music, hemorrhage was either greatly reduced or actually stopped. Neither he nor others who confirmed his observations could understand how this phenomenon was brought about, but it is now believed that the vibrations of the air produced by the music cause the patient to become faint, in which case the action of the heart is so considerably lessened that the overflow of blood is reduced.

Goats' Milk as Food.—The population of the island of Malta, in the Mediterranean Sea, amounting to some 200,000 people, derives its entire milk supply from the goat herds that abound on that little speck of rock. It is estimated that there are about 20,000 goats on the island. There are no regular grazing fields for goats, but every morning the herds are driven out along the roads and hillsides, where they pick up whatever they can find in the way of weeds or any other edible matter, which, however, seldom includes grass. This is supplemented by carob beans when the herd is driven back to shelter at night. How the Mal-

tese goat can give the quantity and quality of milk which it does upon this food is a matter of frequent conjecture, and it is out of the question to get anything but thin and watery milk from cows under the same conditions. An average goat produces $4\frac{1}{2}$ pints of milk per day and the animals cost from \$10 to \$25 each. No special effort seems to be made by the natives to preserve strains, but, nevertheless, the Maltese goat manages to keep up its reputation for looks and productiveness.

The Birth of Japanese Children.—Dr. Masanaka Kinoshita, a professor of the Imperial University of Tokyo, has made an interesting discovery in his scientific researches. He has long made a careful study of the hour of birth of children, and he has found, that in 691 cases, more Japanese children were born between 12 and 3 A. M., and less between 12 and 3 P. M., than at any other hours of the twenty-four. More Japanese babies are born in the day than in the night, as the proportion is 55 in the day to 45 in the night.

Obituary.—Dr. Henry C. Pearce, at Urbana, Ohio, December 2, aged 69 years.—Dr. Robert Terrill, at Darksville, Mo., December 2.—Dr. Stanley S. Cornell, at Athens, Ont., December 2, aged 37 years.—Dr. Lucien McDowell, at Flemingsburg, Ky., December 4, aged 78 years.—Dr. Edwin C. Evans, at Sedalia, Mo., December 4, aged 74 years.—Dr. Alonzo W. Daum, at Connersville, Ind., December 3, aged 34 years.—Dr. Robert E. L. Kincaid, at Bonham, Texas, December 7.—Dr. Louis E. Krombein, at Buffalo, N. Y., December 7, aged 76 years.—Dr. Wm. Mason, at Sussex county, Va., December 16, aged 80 years.—Dr. J. S. Lewis, at Weston, W. Va., December 16, aged 45 years.—Dr. Mary Willits, at Norristown, Pa., December 16.—Dr. Robert W. Armstrong, at Baltimore, Md., December 12.—Dr. P. M. Henderson, at Boston, Mass., December 12, aged 33 years.—Dr. Samuel Daggy, at Philadelphia, Pa., December 15, aged 79 years.—Dr. Josiah W. Lash, at Chillicothe, Ohio, December 12.—Dr. Joseph R. Laine, at San Francisco, Cal., December 15, aged 56 years.—Dr. Alexander Demby, at New York City, December 18, aged 24 years.—Dr. Henry Bauer, at Brooklyn, N. Y., December 18, aged 28 years.—Dr. James F. Doolittle, at Beeston, N. Y., December 19, aged 77 years.

GREAT BRITAIN.

A Lister Jubilee Number.—The *British Medical Journal* of December 13 is a jubilee number, in honor of Lord Lister, containing articles by Bergmann, of Berlin; Lucas-Championnière, of Paris; Durante, of Rome; Bloch, of Copenhagen, and Mikulicz, of Breslau, upon the influence of Lord Lister in surgery. There are also a number of articles by English and Scotch physicians, with several portraits.

London Hospital.—The new out-patient department, which has cost over \$350,000, was used for the treatment of patients for the first time, December 11. It will be formally opened by the King and Queen next year. The main building contains a large central hall, capable of seating over 800 people, off which open 4 sets of consulting rooms. The upper floors contain rooms for every special treatment, including the Finsen light treatment and the Röntgen rays.

University College, Liverpool.—Major Ronald Ross has recently been appointed professor of tropical medicine and parasitology, called the Sir Alfred Jones chair, because \$25,000 were contributed by Sir Alfred Jones toward endowing the chair.

Alcohol in England.—In the past 15 years the death-rate from alcohol in England has increased almost 42% in men and 100% in women. In some of the larger cities it is not only greater than that from scarlet fever, but exceeds the death-rate of all the other contagious diseases taken together.

CONTINENTAL EUROPE.

Death of Dr. Richard von Krafft-Ebing.—Richard, Freiherr von Krafft-Ebing, the well-known specialist on mental and nervous diseases, died at Graz, Styria, Austria, December 22, aged 62 years. He was not an Austrian, having been born in Mannheim, Germany, August 14, 1840. His medical studies were pursued at the Universities of Heidelberg (under Friedrich), Zurich (under Griesinger), Vienna and Prague, where he was graduated in 1863. In 1864 he became assistant physician in the Illenau Insane Asylum. He studied neuropathology at Baden-Baden from 1869 to 1871 and was appointed professor of psychiatry in Strassburg in

1872. In 1873 he became director of the Styrian Insane Asylum at Graz, Austria, and was appointed professor of psychiatry in the University of Graz, being the first to hold that chair. He was also made director of the Neuropathological Clinic in Graz when this was opened in 1885. In 1889 he was called to Vienna, being appointed professor of psychiatry and director of the clinic on nervous and mental diseases, which positions he held until his retirement, April 1 last. On March 11, 1902, he celebrated the thirtieth anniversary of his professorship, when a "Festschrift," prepared by his former pupils, was presented to him. He removed to Graz upon his retirement, living there until the time of his death. His many monographs upon subjects connected with psychiatry and neuropathology are well known. He was also the author of several text-books on criminal psychology, psychiatry and medicolegal psychopathology, several editions of which have been published. He was an excellent lecturer, never descending from his high German diction, always a polished gentleman. His clinics were most interesting and were always crowded. Not only was he admired by the students, but he was almost venerated by his patients.

A Russian Lake.—The State Department has received the report that a small lake, about 15 miles from Ujoora, in the Atchinsk district, called Lake Utchoom, has been found to contain water possessing great curative properties, especially efficacious in the treatment of wounds, rheumatism, catarrhal, skin and nervous diseases. The water is said to be of a bitter, salty taste.

Smallpox at Roubaix, France.—Not only has Lille had an epidemic of smallpox during the months of October and November, but many isolated cases have appeared at Roubaix, and the condition is fast becoming epidemic. Free vaccination has not given satisfactory results in either city and a medical committee has been appointed by the municipality to decide upon stringent measures to overcome the epidemic in Roubaix. In Lille as many as 133 new cases, with 38 deaths, have occurred in one week. Outside of gratuitous vaccination, nothing has been done in Lille to overcome the epidemic.

University Notes.—Amiens: Dr. Labarrière has just been appointed professor of anatomy, and Dr. Dhourdin has been appointed honorary professor of anatomy.—Athens: Dr. Theodor Zaimis has been appointed professor of surgery in charge of the second surgical clinic.—Berlin: Dr. Georg Frank has received the honorary title of professor of bacteriology.—Bordeaux: Dr. A. Demons, professor of clinical surgery, has been appointed dean of the medical faculty.—Caen: Dr. Gosselin has just been appointed professor of physiology, replacing Dr. Fayel Deslongrais.—Charkow: Dr. Alexis Bjeloussow, professor of anatomy, celebrated the completion of 25 years as a teacher, November 10.—Clermont: Dr. Cavalié, of Bordeaux, has been appointed professor of anatomy.—Copenhagen: Dr. V. Heckscher has received the title of professor of otology.—Cracow: Dr. Przemyslaw Pieniazek has been appointed professor of laryngology.—Dijon: Dr. M. Vincent has been appointed professor of pharmacy and materia medica.—Grenoble: Dr. Cibert has been appointed professor of obstetrics.—Munich: Dr. A. Wertheimer celebrated his seventieth birthday, December 6.—Vienna: Dr. Alexander Fraenkel has been appointed professor of surgery, with especial reference to surgery in war; Dr. Hubert Peters, professor of obstetrics and gynecology; Dr. Richard R. von Zeynek, professor of medical chemistry; Dr. Anton Ghon, professor of pathological anatomy; Dr. Albert Bing, professor of otology; Dr. Salomon Klein, professor of ophthalmology; Dr. Richard Braun von Fernwald, professor of gynecology, and Dr. Hermann Schlesinger, professor of medicine.

Obituary.—Dr. Nicoladoni, one of the best-known Austrian surgeons, a pupil of Dumreicher's, professor of surgery at Graz, died in Graz, December 4, aged 55 years. He was graduated in 1871 from the University of Innsbruck, and has been professor since 1881. He performed the first operation for esophageal diverticulum and was the theoretical founder of gastro-enterostomy.—Dr. Eugene D'Heilly, physician to the Paris Hospitals, for many years visiting physician to the Hôpital des Enfants Malades, Paris, died recently, aged 70 years.

The Latest Literature.

BRITISH MEDICAL JOURNAL.

December 6, 1902.

1. An Address on Acute Manifestations of Chronic Disease. J. MITCHELL BRUCE.
2. An Address on the Coroner and His Relations with the Medical Practitioner and Death Certification. WILLIAM WYNN WESTCOTT.
3. On Colon Catarrh. T. STACEY WILSON.
4. Note on a Case of "True" Intestinal Sand. C. H. BEDFORD.
5. The Croonian Lectures on the Natural History and Pathology of Pneumonia. (Lecture IV.) J. W. WASHBOURN.

1.—Bruce points out that what we commonly call **acute disease** is, in many instances, an acute illness in the course of a chronic disease. Failure to appreciate the chronic element may be due to want of evidence furnished by the history, the symptoms and the physical signs, to the baffling circumstances attending the acute illness, to the similarity to a definite disease presented by the acute symptoms, to haste, thoughtlessness and clinical inattention on the part of the physician, or to lack of appreciation of the indications presented by the symptoms. If, when confronted by a train of acute symptoms, the physician takes time to consider the possibility of the condition being an acute manifestation of a chronic disease, he will have the advantages of making an early diagnosis, of instituting immediate treatment, of giving a more accurate immediate and remote prognosis, and of striking at and partly arresting the primary disease in its course. A consideration of the possibility of an acute attack indicating an underlying chronic complaint furnishes a clinical key to the true pathology of the disease in question. [J. M. S.]

3.—Wilson divides **colon catarrh** into: (1) Simple acute catarrhal colitis; (2) subacute and chronic simple catarrhal colitis; (3) mucomembranous colitis or membranous colitis; (4) mucous colic and (5) true catarrhal typhlitis. These various types pass into each other. The catarrhal condition of the colon is indicated by abnormal secretory activity and by abnormal motor activity. The abnormal secretory activity results in an excessive production of mucus, and the abnormal motor activity produces pain and spasmodic dilation of the bowel. The author then describes the pathology of the disease. The etiological factors are irritating drugs, especially purgatives and enemata, errors in diet, the effects of chill, gout and micro-organisms. The symptoms of the condition are excessive secretion of mucus, excessive irritability of the muscular coat of the colon, causing it to harden and become palpable, constipation, pain and tenderness, and such nervous phenomena as mental depression, hypochondriasis and neurasthenia. In the treatment, the author advises the use of salicylates alone or combined with carbolic acid and combinations of mercury perchloride and iron, the elimination of all irritating articles from the diet, enemata of salt solution with or without boric acid, and, in extreme cases, right inguinal colotomy in order to give the colon a rest. [J. M. S.]

4.—Bedford reports a case of **true intestinal sand**. The chemical analysis of the sand gave moisture, 5.20%; calcium phosphate 28.68%; calcium carbonate 5.20%; magnesium phosphate, 0.49%; organic matter, 60.43%. At the time the sand was passed the patient, a lady, aged 44 years, had been on a milk and farinaceous diet for months on account of her gouty diathesis. Bedford, without committing himself, indicates that the inorganic constituents of the sand could be derived from the lime salts of the milk, and that the gouty diathesis could bear an etiological relation to the production of the sand. [J. M. S.]

LANCET.

December 6, 1902.

1. An Address on the Meaning of a Profession. WILLIAM SMART.
2. A Lecture on the Cardiac Muscle From a Clinical Point of View. SEYMOUR J. SHARKEY.
3. The Croonian Lectures on the Natural History and Pathology of Pneumonia. J. W. WASHBOURN.
4. A Note on the Causation and Treatment of Thrombosis

Occurring in Connection with Typhoid Fever.

A. E. WRIGHT and H. H. G. KNAPP.

5. Obturators. T. S. CARTER.
6. A Method of Removing Small Metallic Foreign Bodies From the Stomach Without External Operation. STEPHEN MAYOU.
7. The Clinical Association of Reduplicated First Sound. ARTHUR G. PHEAR.
8. A New Departure in the Treatment of Hypopyon Kerato-Iritis. G. HERBERT BURNHAM.
9. A Case of Concealed Accidental Hemorrhage. J. W. INGLES.
10. Eosinophilia Associated with Bilharzia Disease. A. E. RUSSELL.
11. Report of an Outbreak of Typhoid Fever and Other Illness Due to Oysters. JOHN C. THRESH.

4.—Wright and Knapp contribute a note on the **causation and treatment of thrombosis occurring in connection with typhoid fever**. These observers determined the coagulation time of the blood and its content in lime salts in a series of patients suffering from enteric fever: (1) During the acute stage of the disease and (2) during convalescence, and also in normal persons. They first describe the methods which they followed and then their results, which are arranged in 4 tables. They found that in a normal adult the coagulation time varied from between $3\frac{1}{2}$ to 11 minutes. They also show that the minimum strength of oxalate of ammonium solution, required to prevent coagulation, varied from 1 in 800 to 1 in 2000, and they also found that the blood which contains less calcium salts than a control blood is not always less coagulable, nor is a blood which contains more lime salts necessarily more coagulable than the control. In the acute stage of typhoid fever the most noteworthy change is a general diminution of blood coagulability, and the most important results in connection with the cases during convalescence is a marked increase of blood coagulability. They also determined that the calcium salts are increased to twice the extent of the normal during typhoid convalescence. They point out that increased coagulability of the blood during convalescence plays an important part in thrombosis, and they found that, in the cases in which thrombosis followed, the blood was found to be abnormally coagulable. In a series of 7 cases they administered a decalcifying agent—citric acid. In each of the 7 patients observed the exhibition of citric acid was followed by decalcification of the blood and a corresponding diminution of its coagulability. They suggest, in conclusion, that increased coagulability of the blood during the convalescent stage may be dependent upon an excess of lime salts, and that this excess of lime salts is derived from the milk, which, for the most part, constitutes the diet of the patient. [F. J. K.]

5.—Carter describes the use of **obturators after the removal of the upper jaw**. He exhibits photographs showing the improvement resulting from the use of this mechanical device. [J. H. G.]

6.—Mayou describes a **magnet** which he has devised for **removing small foreign bodies from the stomach**. The magnet is made so as to fit an ordinary stomach tube, the end of which is cut off and encircled by a silver band. The tube with the magnet is inserted into the stomach and brought in contact with the foreign body, this being done with the aid of the X-rays and the fluorescent screen. A case is reported of a boy, two years of age, from whose stomach a hairpin was removed by this instrument. [J. H. G.]

7.—Phear discusses the **clinical associations of reduplicated first sound**. His article is based on the study of 109 cases which have come under the writer's notice. He states that reduplication of the first sound is never perfect in the sense that there are 2 separate sounds divided by an appreciable interval of silence. He defines this condition as an interruption in the uniformity of the sound by 2 points of emphasis. These accentuated parts are alike in quality, but may differ in intensity, the accent falling more usually on the second part than on the first. At the apex the reduplicated character of the sound is generally evident, but with no such distinctness as at a short distance to the right, intermediate between the apex-beat and the sternal margin; and the reduplication is seldom appreciable above the level of the fourth cartilage. From an analysis of the cases on which the present communication was based the reduplication of the first sound may be as-

sociated with the following conditions: (1) Valvular lesions of the heart, particularly mitral regurgitation; (2) arterial degeneration with raised systemic tension; (3) pulmonary emphysema with or without bronchitis; (4) anemia generally of the chlorotic type; (5) in cases the prevailing symptoms of which were those of dyspepsia, and in these there may be reduplication of the first sound without any evidence of cardiac inefficiency; most of these cases occurred in women. Seven of the cases in this series remained unclassified. [F. J. K.]

8.—Burnham points out a new departure in the treatment of hypopyon which consists in dropping into the eye a 4-grain solution of atropine once every other day, or second day, and a casual bathing of the eye with hot water or a little boric acid, combined with the administration of mercury and potassium iodide taken internally, and pilocarpine, given hypodermically. The treatment has given excellent results and has several special features—the rapid relief of pain, the cure of the disordered condition with at least as great or greater certainty than by other methods; the gradual and uniform removal of the corneal opacity, and the absence of any pain immediately associated with this form of treatment. [F. J. K.]

9.—Inglis reports a case of concealed accidental uterine hemorrhage, resulting from straining during the eighth month of pregnancy and which produced separation of the placenta, death of the child and the subsequent death of the mother. [J. H. G.]

10.—Russell reports a case of bilharzia disease associated with absolute eosinophilia. Three examinations were made which showed the following percentages: (1) 33.6%; (2) 31.8%; (3) 23.8%. [F. J. K.]

MEDICAL NEWS.

December 20, 1902. (Vol. 81, No. 25.)

1. The Scientific Aspects of Modern Medicine. FREDERICK S. LEE.
2. Acute Pancreatitis, with the Report of Three Cases. GEORGE WOOLSEY.
3. Rubella Scarlatinosa. FREDERICK C. CURTIS and HENRY L. SHAW.
4. Some Observations in the Children's Hospitals of London and Paris. LINNAEUS LA FETRA.
5. Impressions of the Non-Hereditary of Acquired Characters. LEWIS S. BLACKWELL.

2.—Woolsey reports 3 cases belonging to a distinct group of inflammations of the pancreas, with acute onset and general invasion of the peritoneum, and without gangrene or abscess of the pancreas. In acute cases, in which the termination is sudden death, the presence of hemorrhage is a frequent feature. The gland is more or less infiltrated with small hemorrhages, and more extensive ones may be found in the root of the mesentery, the retroperitoneal tissue or the lesser peritoneal sac. It is generally accepted that the hemorrhage is secondary to the inflammation and results from it. Another feature of some acute cases is the occurrence of fat necrosis in the subperitoneal fat, in the omentum, etc., most frequently found in hemorrhagic and necrotic pancreatitis. Flexner's experience shows that the escape of the pancreatic secretions into the tissues about and near the pancreas is the cause, and that this escape is chiefly due to lesions of the pancreas, including those interfering with the discharge of its secretions, and also to disturbances of its circulation. He thinks that it is highly probable that fat necrosis is due to the presence of the fat-splitting ferment, steapsin, which he could demonstrate to be present. Another variety of acute pancreatitis is characterized by the occurrence of necrosis of the tissue of the pancreas in whole or in part. It is regarded as a late stage of the hemorrhagic lesion. Suppurative or purulent pancreatitis is another variety, or advanced stage, of acute pancreatitis. It is in this variety or stage that most operations for acute and subacute pancreatitis are formed. [T. M. T.]

3.—Curtis and Shaw mention that Dukes contends that there is a fourth disease called rubella scarlatinosa, in which the following differential diagnosis from scarlet fever is made: (1) The pulse in scarlet fever is accelerated, while in rubella scarlatinosa, even with the fullest rash, the pulse is not increased in frequency; (2) in scarlet

fever, with an abundant rash, there is always a marked rise in temperature, while in the above disease, even with the fullest rash, the temperature is not raised over 99° F.; (3) the strawberry tongue is always present in scarlet fever, while it is never observed in the other disease; (4) after a full rash in scarlet fever there is always a copious desquamation, whereas the most intense rashes in rubella scarlatinosa are not necessarily followed by any peeling; (5) persons with rubella scarlatinosa may go out, even when desquamating, and not spread the disease, whereas in scarlet fever a widespread epidemic would invariably result. [T. M. T.]

5.—Blackwell quotes the following: It is not diseases, generally speaking, that are inherited. It is the peculiarities of structure or constitution which serve as predispositions to the disease. As the tendency of spirit drinking is to induce mental, moral and physical deterioration, we would naturally infer and assume that the acquired habit in one generation would induce the same degeneration in the next, and evolve a hereditary condition. As heredity often overleaps one generation or manifests its influences in some psychoneurotic disease, it is difficult to say whether the alcoholic habit is hereditary or acquired. [T. M. T.]

MEDICAL RECORD.

December 20, 1902.

1. The Systemic or Constitutional Character of Gonorrhea; Illustrated by Five Cases of Iridochoroiditis. CHARLES STEDMAN BULL.
2. A Case of Angina Pectoris with Autopsy. BEVERLEY ROBINSON.
3. A Case of Typhoid Spine. LEONARD W. ELY.
4. A Study of the Indication for Nephropexy. AUGUSTIN H. GOELET.
5. Observations on German Therapeutics. SIMON BARUCH.
6. Instructions to Patients Affected with Syphilis and Gonorrhea. FOLLEN CABOT.
7. Congenital Absence of Pectoral Muscles. CHARLES V. BURKE.

1.—Bull states that during 20 years or more a direct connection has been recognized between gonorrhea and endocarditis, and since the investigations of Bumm, in 1887, we have come to admit the part played by the gonococcus in the production of general constitutional complications. Whether the general system is invaded by the gonococci themselves or by the toxins developed from them is difficult of proof. It is admitted that gonorrheal urethritis may be the starting-point of a fatal septicemia, and that endocarditis and arthritis are often complications of this infectious disease. The organism has been obtained in pure culture from the blood, the heart structures and the joints. Bull reports 5 cases of iridochoroiditis due to gonococcal infection. These cases are usually much more severe than the ordinary rheumatic form of the disease, yet, if they are properly and persistently treated, the inflammation eventually rapidly subsides without leaving any marked impairment of vision. [T. L. C.]

2.—Robinson presents detailed notes of a case of angina pectoris with autopsy. The coronary arteries were thickened evenly throughout, their linings were smooth and their lumina were open, except in a small branch of the left coronary situated in the auriculoventricular groove. This vessel contained a small patch of sclerosis which was circumferential and almost occluded the lumen at that point. The heart muscle in relation to this branch was normal on section. There was some mitral incompetency. The only cerebral lesion (beyond arteriosclerosis which did not occlude any vessels) was a moderate leptomeningitis. Robinson regards the repeated attacks of angina from which the patient suffered as of uremic origin. The final maniacal seizure was also probably of this origin, made worse by the repeated doses of morphine which had been given to relieve pain. The kidneys showed only possibly passive congestion. [T. L. C.]

3.—Ely reports a case of typhoid spine. There was a distinct history of trauma of the spine. The patient suffered from pain upon motion of the trunk or lower ex-

tremities and while great weakness was present there was no paralysis. The pains were such as accompany disease of bone, and were evidently "referred" pains. The painful area was never sensitive to pressure. The symptoms came on about 6 weeks after convalescence. Recovery was slow. [T. L. C.]

4.—Goelet presents a study of the indications for nephropexy which he holds should be performed when the kidney is prolapsed to the third degree or beyond, that is, when the whole organ is found prolapsed below the last rib in front. [T. L. C.]

5.—Baruch presents some observations on German therapeutics, a résumé of the methods of treatment in vogue in the greater institutions in Germany. [T. L. C.]

6.—Cabot distributes printed forms to patients under treatment who are afflicted with syphilis or gonorrhea. These directions comprise the proper sanitary precautions to be used. [T. L. C.]

NEW YORK MEDICAL JOURNAL.

December 20, 1902.

1. Endometritis. H. J. BOLDT.

2. Laryngectomy for Malignant Disease.

FRANK HARTLEY.

3. Gynecological Massage. BERNARD S. TALMEY.

4. Alexander's Operation. LE ROY BROUN.

1.—Boldt accepts Ruge's division of endometritis, which consists of the glandular, interstitial and mixed varieties. The glandular variety is characterized by an increase of the adenoid elements, the interstitial variety by an increase in the fibrous tissue, with more or less destruction of the glands; in the mixed form there is an increase of both the interstitial and the glandular structure. He then describes the symptoms of these different varieties, and also the treatment. The latter should consist in both local and general measures. The local measure usually employed is, of course, the curette. This, however, he condemns in septic endometritis, neither does he favor hysterectomy in this latter condition. He says that, in septic uteri, the less local meddling done, the better are the chances for such patient's recovery. [P. B. B.]

2.—In concluding this article, Hartley reviews the literature from the time of the first thyrectomy, performed by Brauers, in 1833, and the first laryngectomy, performed by Watson, in 1878. He then speaks of the improved methods of operative technique and the better results as to cure. This he attributes to those measures adapted to avoid the former frequent causes of death, which, he says, are: (1) Aspiration pneumonia and (2) the infection of cellular planes enclosing the trachea and its extension to the mediastinum. The measures utilized to combat the above dangers are: (1) Local anesthesia; (2) Trendelenburg and Rose's posture; (3) immediately preceding the extirpation of the larynx, division of the trachea at the level of the first or third rings is made, and its lumen turned forward and sutured to the skin. He also describes the operative technique as employed to-day, and gives, in detail, 5 case-histories with the results following this method. [P. B. B.]

3.—Gynecological massage has received too little attention from American gynecologists, though Brandt, of Stockholm, treated his first patient successfully as early as 1861. He says the knife is used entirely too often. He speaks of the indications and contra-indications for the employment of this procedure and described in full the different movements to be employed. [P. B. B.]

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

December 18, 1902. (Vol. CXLVII.)

1. A Method of Staining Sputum for Bacteriological Examination. WILLIAM H. SMITH.

2. Eleven Acute and Eighteen Chronic Cases of Influenza Proved by Bacteriological Examination.

FREDERICK T. LORD.

3. Congenital Anomalies of Phalanges, with Report of Cases Studied by Skiagraphy. F. B. LUND.

4. Ependymal Epithelium as a Constituent of Teratoma. HENRY A. CHRISTIAN.

1.—Smith calls attention to the value of sputum examination in central pneumonia, acute phthisis following an influenzal pneumonia, bronchial asthma occurring in influenza, myocarditis with bronchitis, the latter condition due to a chronic influenza. It is not only necessary to examine the sputum for the tubercle bacillus, but the influenza bacillus must also be looked for. [T. M. T.]

2.—Lord's conclusions are: (1) Infection with influenza bacilli is prevalent apart from an epidemic of influenza. Influenza bacilli have been found in the sputum of 60 of 100 selected patients with cough. In about $\frac{1}{2}$ of these 60 the influenza bacilli were in practically pure culture; (2) there is nothing distinctive in the clinical manifestations of influenza apart from epidemics, and the diagnosis can with certainty be made only by the examination of the sputum for influenza bacilli; (3) the duration of the cough and expectoration after an attack of acute influenza does not usually exceed 6 weeks, but in some cases it lasts for months or years. Many of the cases, formerly classed as chronic bronchitis, are chronic influenza; (5) cases of chronic influenza with paroxysmal dyspnea may closely resemble asthma; (6) chronic influenza is not infrequently mistaken for pulmonary tuberculosis. [T. M. T.]

4.—Christian, in his article on ependymal epithelium as a constituent of teratomata, mentions the structure of various cysts: (1) A few are lined by epidermis, showing the usual keratin transformation, with here and there a hair follicle and sebaceous gland; (2) cysts showing a stratified transitional epithelium; (3) many have a lining of ciliated cylindrical epithelium in which goblet cells are frequent; (4) less frequently the cysts are lined by similar epithelium, but devoid of cilia; (5) some cysts show a low columnar or cuboidal epithelium with cytoplasm thickly studded with rod-shaped granules of brownish pigment, very similar to those found in the retina; (6) other cysts are lined by rather low cuboidal epithelium and have a sharp line of demarcation from the surrounding stroma; (7) there are cysts lined by high cylindrical epithelium, the basal border of which is often irregular and between which are sometimes found neuroglia fibers. These 2 last cysts have in common that the nuclei of their epithelium are situated toward the outer end of the cell, and that, in the cytoplasm of many, near the inner border, are seen very minute dots or rods, which give the same microchemical reactions as do the neuroglia fibers. The relation of these cysts to the neuroglia tissue varies. The high cylindrical type of cells frequently stand in very intimate relation to neuroglia fibers. Cysts lined by the low cuboidal type may be entirely or in part surrounded by neuroglia, or none may be in its immediate vicinity. The latter cannot be considered as against the ependymal character of this epithelium, since the same conditions hold in the choroid plexus in which ependymal epithelium is present and yet no neuroglia is adjacent. [T. M. T.]

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 20, 1902.

1. Typhoid Fever and Water-Supply in Chicago.

EDWIN OAKES JORDAN.

2. Surgical Treatment of Gall-stones. J. F. W. ROSS.

3. Recent Investigations Concerning the Relation of Human and Bovine Tuberculosis. D. E. SALMON.

4. The Intertransmissibility of Human and Bovine Tuberculosis. A Review of the Experimental Evidence. R. R. DINWIDDIE.

5. Dermatitis Repens. M. B. HARTZEL.

6. Dermatitis Hiemalis; a Recurrent Inflammation of the Skin, Associated with Cold Weather.

WILLIAM THOMAS CORLETT.

7. Concerning Morphine Addiction and its Treatment.

C. B. BURR.

8. Cholera Aboard the U. S. Army Transport *Sherman*, etc. WILLIAM C. MABRY and HARRY C. GEMMILL.

1.—Jordan contributes an article on typhoid fever and

water-supply in Chicago. He points out that for years typhoid fever has prevailed excessively in Chicago, and that that city has suffered from this disease more severely than any other large American city. From his remarks it appears quite clear that the majority of cases of enteric fever in Chicago are due to the contaminated water-supply. [F. J. K.]

2.—Ross calls attention to the great improvement in the treatment of gall-stones by surgical measures and refers to the dangers incurred by patients suffering from gall-stones. These dangers are considered sufficient warrant for surgical procedure in practically all cases. Two cases of gangrene of the gall-bladder are referred to which recovered after simple drainage. Cholecystectomy is discussed at some length. This operation should be performed in gangrene unless the local conditions present a contrary indication. In the presence of obstructive jaundice cholecystectomy is not advisable. In such cases drainage should be established. Because stones have been found in the hepatic duct when the cystic duct was obstructed, Ross does not think that the operation of cholecystectomy can be looked upon as a warrant of future immunity from gall-stones. In performing cholecystenterostomy he prefers a small Murphy button, although he has also used the elastic ligature. The colon is chosen as the most suitable portion of the intestine for anastomosis with the gall-bladder. The operation of cholecystenterostomy, however, must be looked upon as a makeshift, only to be used when the patient is in bad condition, since stones in the common duct can, in most cases, be removed by incising the duct. The use of the sandbag underneath the back is a great aid to exposure of the common duct. Ross is a great advocate of posterior as well as anterior drainage in certain case in which leakage is apt to occur after operations upon the gall-passages. He does not believe in opening the intestine for removal of a stone from the common bile-duct. [J. H. G.]

3.—See Philadelphia Medical Journal, June 21, 1902, page 1116.

4.—See Philadelphia Medical Journal, June 21, 1902, page 1116.

5.—Hartzell presents an article on *dermatitis repens*, a peculiar inflammation of the skin, first described by Crocker. The author gives a report of a case, the principal features of which agreed with those reported by the other observer. He is convinced that the condition in his case was one of infection of some sort, but he was unable to form any opinion as to the character of the infecting agent. [F. J. K.]

6.—Corlett discusses *dermatitis hiemalis*, a recurrent inflammation of the skin associated with cold weather. His article includes the report of a number of cases, and he draws the following conclusions: From a careful clinical study he is convinced that the affection is more closely allied to the erythemata than was at first supposed. Not only is the color suggestive of some forms of erythemata being of a dark blue tint, but, like erythemata, it more frequently attacks the distal extremities or parts farthest removed from the center of circulation. Again, like the erythematous group, it is more frequently met in the months in which there is the greatest variability in temperature, which prevails most frequently during the early winter and the early spring months. The histological findings made by Dr. Ely and by Dr. Carter show nothing distinctive, and the extent of changes in the skin seems to be wholly dependent on the amount of circulatory disturbance. That cold may be regarded as a causative factor in the affection seems to him to be well established; that the same influences are causative in the erythematous group is likewise generally accepted. The author, therefore, regards the disease as one allied to eczema, while characterised by some of the clinical features of erythema, presenting

a clinical feature quite distinct, which further observation may show is entitled to be looked on as a disease *sui generis*. Should a distinct name be called for, the most appropriate, it seems to the writer, is the one proposed, *dermatitis hiemalis*. [F. J. K.]

7.—See Philadelphia Medical Journal, June 21, 1902, page 1118.

8.—Mabry and Gemmill present a report of an epidemic of cholera upon the U. S. Army Transport *Sherman*, and they discuss the merits of the Japanese antitoxin and vaccine. [F. J. K.]

AMERICAN MEDICINE.

December 20, 1902.

1. Failures in the Irrigation Treatment of Gonorrhea.
FRED. C. VALENTINE.
2. The Home Modification of Milk for Infant Feeding.
ALFRED HAND, JR.
3. Preliminary Note on Ring-Shaped Bodies (Nuclear Remains?) Occurring in the Red Cells in Cases of Anemia. RICHARD C. CABOT.
4. On the Relation of Obesity to Improcreeance.
HEINRICH STERN.
5. The Practical Side of Electrothermic Hemostasis.
ANDREW J. DOWNES.
6. A Report on Tuberculin as a Means of Diagnosis.
J. D. MADISON.
7. The Business Phase of Our Daily Work.
I. N. PICKETT.
8. Tettenhamer on Eosinophiles.
EDWARD T. WILLIAMS.

1.—Valentine discusses failures in the irrigation treatment of gonorrhea. He divides the causes of the failures into those for which the physician is to blame and those in which the patient is at fault. It is necessary that great importance should be paid to technique and detail in using these irrigations. A number of failures are due to carelessness on the part of the patient in properly following out his physician's orders. A certain number of patients present congenital defects, such as a very tight preputial orifice, a very large meatus or a stenotic meatus. The properly adapted nozzle must be carefully selected for these cases. In addition to these conditions, various intra-urethral abnormalities are often present, such as epispadiæ, hypospadiæ, fistulæ, balanitis, prostatitis, etc. [T. L. C.]

2.—Hand discusses the home modification of milk for infant feeding. Each patient should be considered by itself, and a careful personal history from birth should be obtained. A second essential point is the knowledge of the fact that cow's milk is the best available substitute for human milk, and it should be obtained for the best possible quality. A third point is to direct the preparation of the food according to the percentages of fat, proteid and sugar in the different ingredients. He suggested the formulæ of Baner, Westcott, Coit and others as useful helps. He, himself, has had considerable success with Meig's mixture modified to suit the individual case. In the original Meig's mixture the fat is usually too high and the sugar too low. If the child does not show a weekly gain in weight it is well to have the milk examined to determine whether the child is getting what he should receive. With patients of 3 months and upward Hand aims to have the proteid at least 1.75 per cent., and to increase it as rapidly as the child can digest it. When the digestion is feeble he has had excellent results from the use of a mixture of sodium bicarbonate in compound infusion of gentian before each feeding. [T. L. C.]

4.—Stern studies the etiological connection between improcreeance and subsequent polysarcia as due to the following causative factors: (1) Decline of systemic vivacity and

vigor after castration and change of life. (2) Preservation of bodily resources otherwise utilized in discharging sexual functions. (3) Participation of surplus blood in fat synthesis in the female organism. (4) Diminution of oxygen-carrying factors in the castrated or declining organism. (5) Reduction of intensity of the general catabolic process in the improcreant. [T. L. C.]

6.—Madison summarizes the value of tuberculin as a means of diagnosis as follows: (1) Patients may react to tuberculin and no evidence of tuberculosis be found at autopsy, as shown by one case cited. (2) Six cases detailed seem to demonstrate that completely healed tuberculosis may react. (3) Cases of proved tuberculosis may not react to the maximum doses. (4) The evidence is not conclusive that other diseases than tuberculosis may react to tuberculin. (5) The margin of error of the tuberculin test is considerable, probably not less than 10%. (6) The maximum dose should be higher than 4 mg., and not more than 10 mg. Small increasing doses are not advisable, as the reaction is not so likely to be distinct, on account of the tolerance which may be produced. An initial dose of 3 to 5 mg. followed by the maximum dose is better. (7) The temperature should usually be normal before injections are given. When the temperature is distinctly above normal a negative result is of no value, as these patients will frequently not respond at all, even to large doses. (8) It seems quite certain that the glycerine extract of tuberculin deteriorates, and a fresh bottle should frequently be opened, care being taken to keep it in a cool, dark place. The 5% carbolic acid solution should be made up on the day it is used, if possible. He believes that deterioration of tuberculin is the principal factor in producing delayed reactions. (9) It cannot be said that tuberculin injections are entirely without ill effects, but their use among suitable patients is no more dangerous than the use of chloroform and ether for diagnostic purposes and is quite as justifiable as an early diagnosis of tuberculosis is of the greatest importance. (10) About 40% of all female patients admitted to the Danvers Insane Hospital react to tuberculin. [T. L. C.]

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

October 23, 1902.

1. On Palpation of the Pylorus. W. P. OBRASTZOW.
2. The Importance of the Typhoid Bacillus in Diseases of the Respiratory Apparatus resulting from Typhoid Fever, and the Appearance of the Typhoid Bacillus in the Sputum. F. GLASER.
3. The Course and the Etiology of a Hospital Epidemic of Diphtheria. F. CUNO.
4. The Importance of the Meconium Plug in the New-Born. H. WEIL.
5. Tincture of Green Soap as a Disinfectant for Instruments. H. GERSON.

1.—Obrastzow directs attention to the fact that, about 10 years ago, in discussing palpation of the intestinal tract, he spoke of the readiness with which the pylorus may at times be palpated. He laid little stress upon this, however, as he was inclined to consider it a matter of comparatively little importance, as a rule, and as he believed that it afforded no especially important indications of any kind. In investigating his statistics of cases, he has found that, of 900 patients treated in the year 1900, there were 9 in which it was noted that the pylorus was palpable. This probably does not include all the cases. He gives a brief description of each of these 9 cases. He then insists upon the importance of the fact that the pylorus may be felt to contract and dilate, and that this peristaltic change in the condition of the pylorus is much more marked than is the peristalsis of any other part of the digestive tract. The pylorus can be felt to form a cylinder and then to relax, the con-

traction and the dilatation each taking a few seconds, and the contraction persisting for a few seconds. As a rule, the pylorus feels like a cylinder. Sometimes it feels like a small nodule, about the size of a hazelnut. Frequently one can feel or hear a fine rumbling. This may be heard even at a distance. This contracted pylorus may be taken for a carcinomatous nodule, because the pyloric portion of the stomach, as well as the pylorus, may frequently be felt to be contracted. The colon is excluded by finding a cylindrical mass 4 to 8 cm. above the lower portion of the stomach. As a rule, contraction of the pylorus indicates no special disease. The author notes, however, one case in which a tumor could at times be seen in the right part of the epigastrium. This tumor could also be felt, and gave a sensation of fine rumbling. It would then disappear spontaneously. It was moderately movable, and it gave a shadow that moved with the shadow of the stomach. It was thought to be undoubtedly the pylorus. The gastric contents showed a marked subacidity. The patient was a decided neurasthenic. This was apparently a case of abnormal increase of the motor irritability of the stomach.

[D. L. E.]

2.—Glaser gives a general brief review of the question of specific typhoidal pneumonia; and particularly directs attention to the fact that modern work especially, has shown that, in most such instances, although typhoid bacilli may be found in the exudate and in the sputum, pneumococci also are present in large numbers and may be rationally considered to be the cause of the consolidation, the presence of the typhoid bacilli being merely a part of the general infection of the organism with these bacteria. The author then refers to a case of typhoid fever, fatal in the second week, in which a fibrinous pneumonia of the right lower lobe was found. Pneumococci were discovered in the sputum and microscopically the lung contained large numbers of pneumococci, together with scattered typhoid bacilli. In the latter part of the disease typhoid bacilli were found in the sputum in small numbers; and puncture of the consolidated portion of the lung showed typical typhoid bacilli in the fluid obtained. This Glaser considers to be an absolute indication that, in this case, typhoid bacilli, while present, were of purely secondary importance. He then reports another case, in which the diagnosis of typhoid fever could readily be made. In the fourth week there was a sudden development of signs of pneumonia, the sputum contained large numbers of typhoid bacilli, a pleurisy afterward developed and the fluid contained typhoid bacilli.

The patient recovered. (To be continued.) [D. L. E.]

3.—The epidemic of diphtheria showed the following course: It first developed in ward 3 of the hospital, 2 cases appearing there. These patients were at once isolated. A few days later several cases appeared in ward 1. Some time later a case occurred in ward 2. Later on a case appeared in ward 4. It was impossible to tell why the epidemic continued, because there had been immediate and very careful isolation, and complete bacteriological investigations had been undertaken at the beginning. The cases were all mild. Ultimately, owing to the suggestion obtained from Neisser (abstracted recently from *Deut. med. Woch.*), the sisters in attendance upon the children were all investigated bacteriologically, and it was found that one sister had virulent diphtheria bacilli in her throat, that that sister had been in attendance in ward 3 when the epidemic began and that she had then been helping about wards 1 and 2, and later in ward 4, the epidemic following the course of the sister's service in the wards. She was at once injected with antitoxin, and the bacilli disappeared. There was another case of diphtherial infection of the throat found in a second sister. These women exhibited nothing but a chronic catarrhal condition of the throat. It was almost unquestionable that the first sister had set up the whole epidemic, a further evidence of the import-

ance of examining the attendants, even though they are apparently well. [D. L. E.]

4.—An instance of a meconium plug is reported, the only one in a series of 500 births. The birth was rapid and spontaneous in this case. The plug was a conical, dark-green object, about 2 cm. long, one end being gelatinous and mucoid in appearance. The importance of this meconium plug is discussed, and Weil inclines to the view that it is of relatively little value, because, in the first place, it is so rare and because it is highly improbable that a child would die without passing meconium, whether death occurred spontaneously or as the result of murder. [D. L. E.]

5.—Gerson has made a bacteriological study of a method of preparing instruments, which consists in wrapping them in cotton that has been soaked in the tincture of green soap. They can then be laid aside. The author states that the soap, in drying, envelops the instruments in a bacteria-proof coating, and that bacteriological studies have shown him that this is a satisfactory method of keeping instruments sterile. After they have been used, he merely wipes them off with the soap-tincture, and then wraps them up in the cotton that has been soaked in soap-tincture.

[D. L. E.]

BERLINER KLINISCHE WOCHENSCHRIFT.

November 24, 1902. (39 Jahrgang, No. 47.)

1. About Glycerolates. KARL HERXHEIMER.
2. Intestinal Putrefaction. A. ALBU.
3. The Staining of the So-Called Chromatin Granules of Protists. A. PAPPEHEIM.
4. Assimilation in Chronic Tuberculosis. J. MITULESCU.
5. The Right and the Necessity of Inducing Abortion in the Tubercular Wives of Laborers. C. HAMBURGER.
6. Atonic Dilatation of the Esophagus.

MAX LEWISON.

1.—Herxheimer discusses the good results achieved by the use of unguentum glycerini and aromatic glycerolate in treating skin diseases. With the addition of zinc oxide, it is of great value in eczema and psoriasis; with naphthol and tumenol, in scabies and lupus; with pyrogallol, in psoriasis, etc. Herxheimer reports successful results in pruritus, eczema, etc. [M. O.]

2.—Intestinal putrefaction is due to destruction of albumin in the intestinal contents. This results in the formation of sulphates and indican. It is affected by the quality and quantity of the food, by intestinal absorption and peristalsis. His experiments, an account of which follows in detail, show how varied the process of putrefaction may be in the intestines. It is not yet known whether the phenol or indol excreted in the urine is an exact indicator of the amount of intestinal putrefaction or not. Upon vegetable diet but little putrefaction occurs. Albu concludes that no value can be laid on the indican reaction. The question of intestinal putrefaction has more scientific than practical interest. [M. O.]

3.—Pappenheim adds a few details in the staining of the so-called chromatin granules of protists by the Romanowsky method to the recent article published by Feinberg in this journal. [M. O.]

4.—Mitulescu reports in detail 8 case-histories of chronic tuberculosis, giving tables of the diet and excretions and the relations between the two, showing the assimilation. Assimilation depends upon the condition of the cell nutrition of the organism, and the resisting powers of the cells. In chronic tuberculosis the cells must not only perform their varied functions, but they must also elaborate secretions to combat the infection. When there is fever, great cell destruction occurs, followed by anemia and loss of flesh. With hemoptysis the nitrogen and phosphorus excreted decreases, because of the blood lost. When the disease is stationary, the cells may be able to cover their losses. If mixed infection occurs, the cells must be in a condition of lowered nutrition. There is scanty absorption, the vitality of the cells diminishes, losses cannot be made good again, and death results. These experiments are most interesting. [M. O.]

5.—After reporting in detail the case-histories of 10 women with tuberculosis, wives of laborers, mothers of

many children, living on the top floors of houses, many in one room, in most unsanitary surroundings, Hamburger discusses at considerable length whether abortion should not be induced. For such women pregnancy is a misfortune. Because of the danger to the patient, her family and the world at large, he considers that the earlier pregnancy is terminated, the better. While there are exceptions, as a general rule Hamburger believes abortion justifiable, if not imperative, if tubercle bacilli are found in the sputum. Such women should take care not to become pregnant; if this should occur, it is the place of the family physician, in consultation with another physician, to decide how far the pregnancy may be allowed to run with the least possible danger to the mother. [M. O.]

6.—Lewinson reports a case of atonic dilatation of the esophagus, in a man of 33, just above the cardiac orifice of the stomach. The condition was recognized by esophageal bougies. The dilatation began 20 cm. below the teeth, while the floor of the sac was 40 cm. distant. Röntgen rays gave a shadow to the right of the sternum, continuous with the heart shadow. The main symptoms in this case were cough on lying down and the disturbance of sleep due to it. Hiccough preceded the condition. Gastric conditions must be differentiated from this. The prognosis is good. The treatment consists of irrigation. If there is cardiospasm, it should be treated by electricity. Good tonic general treatment is also of value. [M. O.]

December 1, 1902. (39 Jahrgang, No. 48.)

1. Antistreptococcus Serum in Scarlet Fever. ADOLF BAGINSKY.
2. Redressement in Scoliosis. A. SCHANZ.
3. The Question of Hemolysins in Human Serums. M. HALPERN.
4. Streptococcic Serums. PEIORKOWSKI.
5. Acute Circumscribed Edema. F. MENDEL.
 - 1.—Will be abstracted when concluded.
 - 2.—Redressment, straightening, in the treatment of scoliosis has accomplished marked improvement. The cause of the scoliosis must be removed and the change of form must be overcome. The latter is especially aided by redressement. A full description of the preparation for operation, redressement itself, the apparatus, plaster of Paris dressing, later dressings, etc., follows. When correctly applied, the result is good and permanent. This is shown in several photographs. The prognosis is much better when scoliosis can be treated by redressement. [M. O.]
 - 3.—Will be abstracted when concluded.
 - 4.—Peiorkowski describes a glandular streptococcus serum prepared by him, which has been used to immunize animals. It is of especial value against streptococci infecting glands. Peiorkowski believes in the multiplicity of streptococci, and that different serums will only immunize against the one particular kind of streptococcus infection. [M. O.]
 - 5.—Mendel reports an exceedingly interesting case of acute circumscribed edema, called Quincke's disease, because discovered by him in 1882, in a girl of 18, affecting the left arm from the fingers to the elbow. Attacks had appeared at different times in different parts of her body, since early childhood. The swelling develops in a few hours, and lasts from some hours to over a week, disappearing rapidly. It appears without known cause, often localized by trauma, etc. The condition existed in many members of the family, several of them having died from sudden asphyxia. She remained free from attacks while taking aspirin, but they returned when she stopped taking it. The condition is probably a toxi-infection, perhaps from the intestines, and is not a neurosis. It may be an auto-intoxication. [M. O.]

NEUROLOGISCHES CENTRALBLATT.

October 16, 1902. (No. 20.)

1. A Case of Arsenical Paralysis. J. KRON.
2. A Case of Katatonia Following the First Menstruation. H. MUCHA.
3. The Paradoxical Pupillary Reaction and a Personal Observation of Narrowing of the Pupils When the Eyes Were Shaded. J. PILTZ.
 - 1.—Kron reports the case of a woman, 21 years of age, who had had headaches once or twice a week since her fifth

year. These were often associated with vomiting. On one occasion, at the age of 18, she had had an attack which resembled epilepsy. She was nervous, but otherwise healthy. A physician prescribed arsenic pills, and as on one occasion the headache was severe and persistent, she took a great many of them. In the course of 2 days she noticed paresthesiæ in the back and legs. These became painful, there was some paresis, and by night the left leg was completely paralyzed. The next day both arms were also paralyzed, and she was unable to sit up or to cough. There was no dyspnea. The condition remained about the same for a long time, the legs in particular being completely paralyzed. There were reactions of degeneration in many of the muscles of the legs which gradually improved, and finally the patient was able to walk with support. There were no gastro-intestinal symptoms. The peculiar taste and dryness of the throat were absent, and at first Landry's paralysis was suspected. Among the other symptoms that were noted in the course of the disease was some disturbance of sensation, hyperidrosis of the feet and, curiously enough, paralysis of the sphincters of the bladder and rectum, which lasted for the first few days. Subsequent investigation showed that altogether the patient had taken in the course of 24 hours 55 pills of 0.005 gm. each, that is to say, about 4 grains of arsenic. [J. S.]

2.—Mucha reports the case of a girl of 15 years of age, without hereditary taint, who the day after the first menstruation had general paresthesia, became excited, had delusions of persecution that passed into a state of mania, then became more quiet, refused nourishment and gradually developed a cramp-like condition. There was a spastic condition of the legs and arms, her habits were filthy, and later she became completely *katatonic* and had from time to time spasms in which she became cyanosed and foamed at the mouth. The case is remarkable on account of the youth of the patient. [J. S.]

3.—Piltz gives a careful analysis of the literature of the **paradoxical pupillary reaction** described by himself and Westphal. (The paper is still unfinished). [J. S.]

November 1, 1902. (No. 21.)

1. The Psychology of Motor Apraxia. A. PICK.
2. The So-Called Myotonic Sluggish Convergence of Pupils Immobile to Light. NONNE.
3. Contribution to the Localization of Cerebral Hemianesthesia. K. SCHAFFER.
4. The Paradoxical Pupillary Reaction and a Personal Observation of Narrowing of the Pupils When the Eyes Were Shaded. J. PILTZ.

1.—A man of 62 years had had numerous attacks which were characterized by the fact that he was unable to find words he wanted to speak. He was unable to write, there were no paralyses; he could hear what was said; and in the course of 3 days he returned to his normal condition. These attacks occurred about every 2 weeks and usually commenced with slight spasm of the mastoid. Sometimes there were peculiar visual phenomena. There were also certain changes in the psychical condition apparently resembling mental confusion. The patient showed signs of senility. There were no physical signs of a focal lesion, and Pick believes the condition was wholly one of **motor apraxia**. He discusses the literature on this condition, particularly calling attention to a case reported by Liepmann. The disease is probably produced by transitory disturbance in certain regions of the brain, to the existence of which Liepmann has called especial attention. [J. S.]

2.—Nonne mentions a case of diabetes and chronic ankylosis of the spinal column in which the right pupil was abnormally wide. There were no adhesions; the pupil failed to react to light and accommodation, but under convergence gradually contracted until it was of pin-point size, and then gradually dilated, requiring 5 minutes to reach its original diameter. The left pupil was absolutely normal. The right pupil did not react when the patient energetically closed the eye. The author also observed the same condition in a second patient suffering from chronic alcoholism. The disturbance is evidently some impairment of function in the centrifugal limb of the reflex arc. [J. S.]

3.—Schaffer summarizes the knowledge concerning the localization of the lesion that produces cerebromianes-

thesia, quoting particularly the conclusion of Dejerine and Long, who believe that the motor region is also the region for cutaneous sensibility. He then describes the case of a boy, 18 years of age, who had had a chill, severe headache and vomiting. When admitted to the hospital it was found that his mental condition was considerably impaired, although he complained only of headache. There were some symptoms of meningitis, and finally the patient awoke one morning with complete motor and sensory paralysis of the left side of the body. It was found that, in addition to loss of tactile sense, there was also loss of pain and position senses. The line of division was in the neighborhood of the median line of the body. It was also observed that the patient had extreme aortic insufficiency. He died of heart failure, and an examination of the brain showed a lesion of the anterior and posterior central convolutions extending some distance into the hemisphere. There is a careful description with illustrations of the lesions in the brain which show that it involved the anterior limb, the knee and the anterior portion of the posterior limb of the internal capsule. The posterior portion of the internal capsule, however, was not affected. The conclusion seems inevitable that it is not necessary for the thalamus to be involved in order to have complete **hemianesthesia**, and probably the motor region of the cortex also receives sensory impressions. [J. S.]

4.—Piltz continues his analysis of the literature of the **paradoxical pupillary reaction**, discussing particularly the papers of Hirschal and Silitz. (The article is still unfinished). [J. S.]

THE JOURNAL OF NERVOUS AND MENTAL DISEASE.

November, 1902. (Vol. 29, No. 11.)

1. Paradoxical Pseudo-Hypertrophy following Infantile Cerebral Hemiplegia. L. PIERCE CLARK.
2. Treatment by the Tourniquet to Counteract the Vasomotor Spasm of Raynaud's Disease. HARVEY CUSHING.
3. The History of Three Cases of Peculiar Motor Manifestations in the Insane. H. A. TOMLINSON.
4. A Case of Unusual Cerebral Hemorrhage. O. T. OSBORNE.

1.—Clark says that the **hypertrophic form of infantile cerebral palsy** presents no marked neuropathy, although in the author's patients convulsive disorders, such as epilepsy, tic disease and chorea, were found in the collateral family stock. Intra-uterine life of the patient has proven uneventful, and the children are healthy until the onset of the stroke, which is usually ushered in with more or less severe convulsions, vomiting, fever and physical prostration. The preferment of the hemiplegia for the right or left side is relatively the same as that of ordinary palsy. The legs and face recover more rapidly and completely. Athetosis was present in 8 cases; its onset occurred on or before the patient recovered from the prostration of the stroke. The character of the spontaneous movements are generally described as posthemiplegic athetosis or chorea, but frequently it resembles choreic paresis (fibrillary chorea): the association of the 2 forms is often seen in the same patient. Movements are more marked in the forearm and shoulder. In about one-half, the lower extremity engages in the athetosis in a minor degree. Athetosis ceases usually in a position of rest, or while asleep, and voluntary efforts at control may decrease the movements, rarely increase. The mental state is usually better than in ordinary palsy. The length of time necessary to produce the hypertrophy varies from 8 to 29 years, average 16 years. The age varies from 12 to 36 years, average 22 years. Hypertrophy may involve any or all parts. The skin, muscles and fat may also hypertrophy in a single case, although some degree of muscle hypertrophy is uniformly present in every case. The enlargement is most frequent in the upper extremities. The muscles most frequently hypertrophied are the biceps, deltoid and triceps. [T. M. T.]

2.—Cushing reports a case in which the symptoms were severe, the arterial spasm was pronounced and was associated with pain. For several months a condition of local asphyxia of all the digits had been present with exacerbations of almost daily occurrence. On several occasions these attacks were so severe that slight superficial patches of terminal gangrene had affected the pads on one

or more of the fingers or toes. The tourniquet was used and gave very satisfactory results. [T. M. T.]

3.—Tomlinson believes that **motor disturbances** associated with insanity suggest the possibility that nervous diseases, independent of insanity, may be due to like causes operating in a more limited field, and resulting from a more definite reduction of potentiality, or exhaustion of capacity. In other words, that the diseases of the bulbospinal nervous system are not so much specific conditions as they are the sequence of slowly or rapidly developed degenerative change in certain parts of a congenitally defective structure in which the capacity of these parts is limited, so that sufficient strain, overuse or disease, would set up a process of decay which would be progressive. [T. M. T.]

THE AMERICAN JOURNAL OF OBSTETRICS.

October, 1902.

1. Report of Two Cases of Gastrectomy. With Remarks. ALBERT VANDER VEER.
2. Normal Involution of the Appendix as a Matter of Surgical Interest. ROBERT T. MORRIS.
3. Normal Saline Solution Before, During and After Abdominal Operations. WILLIAM H. HUMISTON.
4. The Management of Cases of Emergency Arising from Rupture in Ectopic Pregnancy. AUGUSTUS P. CLARKE.
5. So-Called Neurasthenia and Hysteria in their Relation to Abdominal Section. A Clinical Study. J. STEWART NAIRNE.
6. An Operation for Stricture of the Rectum in Women. Preliminary Report of a Case. THOMAS J. WATKINS.
7. Plastic Surgery of the Female Urethra. With Report of a Unique Case. HENRY P. NEWMAN.
8. Some Recent Surgery for Biliary Obstruction. I. S. STONE.
9. Secondary Puerperal Hemorrhage. L. W. ATLEE.
10. The Time of Occurrence of Ovulation as Deduced from some Clinical Observations. JENNIE G. DRENNAN.
11. Hydrorrhea Gravidarum. W. SINCLAIR BOWEN.
12. The Degeneration of Gynecology. W. P. CARR.

1.—Vander Veer reports 2 cases of **gastrectomy**, a very rare operation in abdominal surgery. Very few patients are seen on whom the operation of gastrectomy can be performed. His first case presented a most serious complication, involvement of the diaphragm. Vander Veer remarks that, were he to meet another such case, he would bring up a fold of the jejunum and attach it to the under surface of the diaphragm, including the esophagus, and not attempt the use of the Murphy button, thus relieving the parts from any strain. [W. A. N. D.]

2.—Morris remarks that Senn and Ribbert first called attention to the fact that the vermiform appendix normally undergoes an involution process which is marked by a gradual disappearance of the mucous coat with obliteration of its lumen. Morris has met with a number of patients who have complained of obscure symptoms in the region of the appendix, but with no history of acute attacks. These symptoms, he believes, may be classified distinctly as belonging to normal **involution of the appendix**. The first case of this condition that he noticed was in 1895. The appendix, when removed, presented no external evidence of the infection changes, but the longitudinal section showed that nearly all the distal half of the appendix had undergone a normal involution process, with obliteration of the lumen and replacement of the lymphoid and mucous layers by connective tissue. The symptoms accompanying normal involution of the appendix belong particularly to middle life, although they sometimes become marked as early as the twentieth year. They persist over a series of years, and probably disappear in later

life, when the appendix has become transformed into a string of loose connective tissue. [W. A. N. D.]

3.—Humiston, in 1895, first published his method of allaying **thirst following celiotomy** by the use of normal saline solution. In 1898 he noted the effect of this method upon the excretion of the kidneys, showing an average of 31½ ounces of urine and 90% of the normal quantity of total solids passed during the first 24 hours. In June, of 1897, he began to use the peritoneal cavity as the inlet to large quantities of salt solution. After partially closing the wound he pours into the cavity through a glass funnel not less than 2 quarts of normal saline solution at a temperature of 112° F. Usually the patients have little or no thirst for the first 18 hours, have less pain, and require no enemata of any kind. In vaginal celiotomies the saline is first administered subcutaneously, and in nonsterile emergency work he employs the sigmoid and colon. [W. A. N. D.]

4.—Clarke is satisfied that no hard-and-fast rule should be established for the management of all cases of **shock or collapse from rupture occurring in ectopic gestation**. In some cases, even when the shock is quite profound, the amount of hemorrhage may not be great. In such cases much can be successfully effected by the way of stimulants and opiates, and by the employment of salt solution. This is preliminary to operative interference. If it becomes manifest that serious hemorrhage is still going on and that it is not likely to cease, an abdominal section should be resorted to at the earliest moment after other measures appear unavailing. [W. A. N. D.]

5.—Nairne, in considering **neurasthenia and hysteria in relation to abdominal section**, does not believe that any psychological phenomenon can occur without a corresponding physiological condition to which the relationship is absolutely direct, as to effect and cause. He uses the terms hysteria and neurasthenia to indicate conditions of mind and body and exhibitions of vital phenomena for which no apparently organic condition is openly responsible. He marks down as 2 special points for consideration: (1) The nonpossibility of neurotic condition without organic lesion or disturbance of physiological phenomena. (2) The possibility of direct nerve stimulation leading to neurotic conditions without apparent or appreciable organic affection. He describes a condition of the uterus, which he terms "rigid uterus," which occurs without exception, in all cases in which neurosis had been a prominent clinical symptom. It is not necessarily, but frequently, associated with fibroid degeneration of the *corpus uteri*. This condition can readily be accounted for by some lesion in the cord, usually in the region controlling the nerve supply to the uterus. Such a condition cannot be cured by the moral-suasion methods. He does not advocate abdominal section in all cases of neurasthenia and hysteria, but whenever this neurotic condition of the uterus can be detected abdominal section may be of service. [W. A. N. D.]

6.—Watkins describes an operation for **stricture of the rectum in women**. The operation consisted in: (1) Division of the rectovaginal septum along the median line through the perineum and to a point above the stricture; (2) suture of the rectal to the vaginal mucosa on either side with catgut. This completes the first step of the operation. The second part of the operation is not performed until the healing becomes firm and the snuffing surface of the rectum recovers. The second portion of the operation, which may be done 4 months or more after the first, consists in: (1) Section of the vagina on both sides with the formation by blunt dissection of 2 flaps on either side. The 2 posterior flaps are turned into the rectum to form the anterior portion of the rectum, and the 2 anterior flaps are united to form the posterior wall of the vagina. (2) Suture of the vaginal flaps, the pos-

terior by continuous silk-worm gut suture, and the anterior by the figure-of-eight suture. [W. A. N. D.]

7.—Newman reports a unique case of **plastic surgery of the female urethra**. A semilunar incision was made through the mucous membrane of the vaginal wall, behind the cervix. The tubes and ovaries were ligated with catgut and severed with as much of a broad ligament as was necessary to allow of the uterus being turned downward through the posterior vaginal opening and sufficiently inverted to close the gap in the floor of the bladder. The mucous and serous surfaces coming in contact with each other, and intended for approximation, were denuded and sutured together with interrupted silk-worm gut stitches. An opening was then made into the uterine cavity at a point corresponding to the location of the external meatus, and a retention catheter was inserted through the dilated cervical canal into the bladder. [W. A. N. D.]

8.—Stone remarks that gall-stones do not always give rise to pain or obstruction. It is estimated that perhaps 5% of gall-stone subjects feel the presence of calculi, while 95% are totally unaware of their presence. There are many cases of gall-bladder and cystic duct obstruction or inflammation which rarely cause jaundice, and there are often calculi present, and, possibly, doing mischief, without great pain. In making a diagnosis of **biliary obstruction** it must be remembered that other causes exist besides stones in the ducts and cancer. Occasionally disease of the pancreas or its ducts may exactly simulate the symptoms. A stone in the pancreatic duct may press upon the common duct, or a pancreatic stone may enter the common duct through an anomalous connection. The most important and, probably, the most frequently observed disease of the pancreas is chronic inflammation resulting in induration and hypertrophy with obstruction. Obstruction of the cystic duct occasionally produces jaundice, especially when the stone is a large one and presses upon the common duct. Stone reports a series of cases of biliary obstruction.

[W. A. N. D.]

9.—Atlee records a case of **secondary puerperal hemorrhage**. According to Parvin, the causes of such hemorrhages are alteration of the blood, as in albuminuria, purpura and malaria; psychic causes and direct causes belonging to the uterus, such as the presence of clots or subinvolution. Among the unusual causes may be mentioned the presence of a rapidly growing cyst, crowding the uterus upward, koprostasis, distension of the bladder, coughing, aneurysm of the uterine artery, and thrombosis of the cervix. [W. A. N. D.]

10.—Drennan concludes that **ovulation** occurs in the middle of the intermenstrual period. She bases her conclusions upon 3 so-called typical cases. [W. A. N. D.]

11.—Bowen remarks that a sudden discharge of watery fluid from the vagina during pregnancy naturally suggests the commencement of labor, and it is of practical importance to determine in a given case the source of the flow. The fluid may not have come from the amniotic sac, but from some portion of the decidua, owing to a deciduitis. Chronic deciduitis is a very common complication of pregnancy, and is the predisposing cause of a majority of early abortions. There is an uncertainty as to the exact etiology and pathology of **hydrorrhea gravidarum**. It is more than likely that all the constituent elements of the decidua contribute to the formation of the fluid.

[W. A. N. D.]

12.—Carr emphasizes the importance of several points in the **treatment of gynecological cases**. These are rest, nursing, food, general medicine and local treatment. He thinks that surgical measures are too frequently resorted to.

[W. A. N. D.]

MEDICINSKOJE OBOSRENIE.

Vol. LVII, No. 11.

1. Syphilis and Elephantiasis of the Vulva. M. A. TCHLENOFF.
2. Two Cases of Extragenital Infection with Hard Chancre. A. V. BLANSCHÉ-DE-LA-ROSCH.
3. On the Question of Prophylaxis of Extragenital Infection with Syphilis Among the Soldiers of the Moscow Military District. P. A. PAVLOFF.
4. On the Extract of Suprarenal Glands in Therapeutics in General and Otorhinology in Particular. ALEXANDER IVANOFF.

1.—Tchlenoff reports a case of **elephantiasis of the vulva** in a woman, 38 years old, who has given birth to several children, all syphilitic, having herself suffered for a number of years from syphilis, accompanied by obstinate syphiloderma. The patient was benefited by specific treatment. From this observation and the literature on the subject, the author concludes that, while syphilis undoubtedly plays an important role in the etiology elephantiasis of the vulva, it is not the only factor. He also believes that calomel should be used, even in cases which are not syphilitic in origin. [A. R.]

2.—Blansche-de-la-Rosch reports 2 cases of **extragenital infection with syphilis**. In one, a man, 26 years of age, developed a hard chancre on the right shoulder as the result of a slight bite inflicted by his partner during connection. In the other, a refined girl, 18 years old, contracted a hard chancre on her neck as a result of a rather ardent kiss given her by her intended, the latter having acquired syphilis through smoking a cigar which his syphilitic friend had in his mouth before he offered it to him. The primary sore in his case developed on the upper lip. [A. R.]

3.—Pavloff reports 29 cases of **extragenital syphilis among soldiers, innocently acquired** through intimate contact with syphilitic comrades. This high rate of extragenital infection shows the inefficiency of the present method of inspection and isolation employed in the army. The author recommends that the soldiers affected with syphilis should be separated into distinct companies. [A. R.]

4.—Ivanoff draws the following conclusions from his observations on **suprarenal extract and adrenalin**: (1) Suprarenal extract is an exceedingly energetic vasoconstrictor and may, therefore, be successfully employed as an hemostatic in case of hemorrhage in internal organs (lungs, stomach, intestines, kidneys and uterus), as well as in external mucous membranes; also to prevent hemorrhage during operation on mucous membranes. (2) Suprarenal extract is useful in acute, and will probably prove useful also in chronic, inflammations of mucous membranes. (3) The employment of the extract is not accompanied by any harmful or unpleasant effects. [A. R.]

LA SEMAINE MEDICALE.

September 3, 1902.

Melanotic Cancer of the Face. JABOULAY.

Jaboulay emphasizes the importance of noninterference with moles. The presence of a mole from its contained pigment should always warn a physician of the danger of melanosis. In his paper he mentions 2 cases in which a mole, after being picked and squeezed, developed into a malignant growth. One of these patients, a medical student, excised a mole of the hand and died a short time afterward from melanosis. The malignant neoplasm which developed at the site of the mole in his second patient was situated in the region of the right temple and was regarded as inoperable from its extent. He has administered quinine lactate with some temporary benefit. [T. L. C.]

September 10, 1902.

The Increase in Frequency of Cancer; Its Predominance in Cities and Its Predilection. Are these Real or Apparent? R. de BOVIS.

De Bovis has made an exhaustive inquiry into the frequency of cancer, its predominance in cities and the fact that it has been claimed to affect women more frequently than men. His paper contains an admirable bibliography of this subject. He has carefully analyzed the mortality-rate of cancer and includes in his paper a table of this mortality in most of the civilized countries of the world. His conclusions based upon this analysis are: (1) Cancer of the rectum appears about stationary; (2) uterine cancer has undergone an appreciable diminution; (3) there is also an even more marked decrease in mammary cancer; (4) cancer of the mouth and upper air passage seems to be increasing slightly; (5) cancer of the extremities has decreased; (6) the chief increase in the number of cases of cancer appears to be due to the increase of cancerous visceral affections. He does not believe that there has been a great increase in cancer in the last few years, and he states, with emphasis, that cases of cancer affecting the external parts of the body are stationary; that, while visceral cancer seems to be increasing in frequency and it is probable that certain social facts of the day are accountable for this increase, it is also presumable that this increase, as shown by the statistics, is more apparent than real. He is of the opinion that, were statistics of the rural districts compiled with as much care as those in cities, it would be found that cancer was no more frequent in cities. A point which must not be forgotten is that many patients from the country go to cities to be operated upon and, in many instances, die there, thus swelling the mortality rate from cancer in cities. He believes that when the various periods of life are considered the sexes are affected equally. The prevalent opinion that more women are affected than men is due to the fact that the female genital organs are most commonly affected, and that disease appears in these parts at a much earlier age than elsewhere, either in women or in men. (See also editorial, *Philadelphia Medical Journal*, October 18, 1902.) [T. L. C.]

September 17, 1902.

Multiple Hydatid Cysts of the Abdominal Cavity of Echinococcal Origin. L. CHEINISSEE.

This writer presents a critical summary of the literature of echinococcus cysts of the abdominal cavity. [T. L. T.]

September 24, 1902.

The Role of the Principal Contributing Factors in the Etiology of Cancer. R. de BOVIS.

De Bovis reviews the various accessory causes in the etiology of cancer which are susceptible of a statistical determination. He points out the importance of a proper study of statistics, in order that error may be avoided. For instance, in the mortality of cancer in cities compared with the country, it should be determined: (1) The population of the districts considered, which must include the ages of the inhabitants; (2) the distribution of the disease in the sexes and the number of males and females in the population, and (3) the population of the districts compared per square kilometer. He reviews the influence of race and states that there seems to be a somewhat less receptivity on the part of the Southern races than those of the Northern. But we are ignorant of the exact measure of this receptivity. He gives a résumé of the geological, orographical, meteorological, social, professional, dietetic and certain other factors, the consideration of which may not be said to rest on an incontestible statistical base. He does not believe that the theory advanced in recent years that carcinoma attacks patients earlier in life than heretofore is founded on fact, but he holds that the contrary opinion has been conclusively proven. The age of maximum frequency of cancer appears to be, in round numbers, 70 years for male, and 75 years for females. (See also editorial, *Philadelphia Medical Journal*, October 18, 1902.) [T. L. C.]

JOURNAL DES PRATICIENS.

November 1, 1902. (16me. Année, No. 44.)

1. The Medical Treatment of Acute Rheumatic Pericarditis. HENRI HUCHARD.
2. Neurasthenic Asthma. C. FIESSINGER.

1.—The medical treatment of rheumatic pericarditis consists in sodium salicylate in large doses, given day and night, continued for some time after articular symptoms have disappeared. In pericarditis without effusion Huchard advises scarification, ice and methyl salicylate locally, and opium, digitalis, milk diet and perhaps the nitrites internally. Sodium benzoate, theobromine and normal salt solution enemata or injections may also be of service. After effusion occurs, he advises venesection, digitalis, theobromine, paracentesis pericardii or pericardiotomy. [M. O.]

2.—Fiessinger reports in full the case-history of a woman of 50, with attacks of asthma which were neurasthenic in origin. Such cases are rare. Recovery followed milk diet, subcutaneous injections of glycerophosphates, sodium cacodylate and potassium iodide, given during different attacks. The condition resembled phthisis in some respects. He calls it neurasthenic, pulmonary asthma. [M. O.]

ARCHIVES DE MEDECINE DES ENFANTS.

August, 1902. (Vol. V, No. 8.)

1. The Characters of the Cerebrospinal Fluid in Meningitis. ANDRE LÉRI.
2. Rheumatic Pericardial Symphysis. L. BAUMEL.
3. A Case of Achondroplasia. JULES COMBY.
4. Two Cases of Purulent Peritonitis. SEVESTRE.
5. Volvulus in an Infant of 9 Months. FOLLET.
6. Alcoholism in an Infant One Month Old. FOLLET.

1.—Léri reports 5 case-histories in detail, all of patients with tuberculous meningitis, in not one of whom was meningeal permeability found, methylene blue injected subcutaneously not coloring the cerebrospinal fluid at all. This impermeability is of no diagnostic value in differentiating the variety of meningitis. Nor are examinations of the leukocytes in the fluid, cryoscopy, the quantity of albumin, etc., of more than positive value; they have no value when negative. When impermeability is observed, the freezing point of the cerebrospinal fluid is low. [M. O.]

2.—Baumel reports a case of pericardial symphysis in a boy of 12, who had acute articular rheumatism 6 months before entering the hospital, where death followed in 2 weeks. Autopsy confirmed the diagnosis of pericardial symphysis, made from the area of pericardial dulness, the waving impulse with retraction of the precordial region, and the muffled heart-sounds, with the murmur of aortic insufficiency. This murmur probably followed dilatation produced by the symphysis. At the autopsy, the effusions in the serous cavities were hemorrhagic, and numerous subcutaneous ecchymoses were observed. [M. O.]

3.—Comby reports a case of achondroplasia in a boy of 5½ years, of excellent family history, born after a hard labor. His appearance was typical, as was shown by photographs. The author also reviews another case, recently reported. [M. O.]

4.—Sevestre reports 2 cases of purulent peritonitis in girls, aged 8 and 4 years, the former due to gonococci, following vulvovaginitis; the latter due to pneumococci, insidious in onset. Both children recovered after laparotomy. [M. O.]

5.—Follet reports a case of volvulus in an infant of 9 months, with sudden dyspnea, tympanites and death in 2 hours. The autopsy showed intestinal occlusion at the end of the ileum, the splenic flexure of the colon and the sigmoid flexure. A few gastro-intestinal symptoms had been noted 3 weeks before. [M. O.]

6.—Follet reports a case of alcoholism in a boy aged 30 days, whose nurse had given him 1¼ drams of brandy daily. He vomited regularly after nursing and slept very soundly all night. After stopping the brandy, the infant lost weight for 2 weeks, but then gained rapidly. [M. O.]

Original Articles.

INFLUENZA AND THE NERVOUS SYSTEM.*

By SMITH ELY JELLIFFE, M. D.,
of New York.

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In this day and generation, when statistical tables are voluminous and illy digested, it is a comparatively simple matter to make a brief for almost any relationship of cause and effect, even for unrelated phenomena. Many and widely distributed have been the topics which have needed the support of the statistical argument, but the relationship of influenza to the nervous system does not rest on such a substratum. The value of statistics, however, is helpful in bringing to the fore some of the more important features of the toxemia of influenza.

Of the history of influenza epidemics it is but necessary to mention that, according to Fehr¹, von Koenigshoven described a markedly virulent epidemic, which occurred in 1387, which was universal over the entire European area; de Bays described an epidemic, occurring in 1404, and Fehr mentions the interesting fact that it was then noted that following the disease there was a tendency to mental trouble: Hypochondriasis, melancholia, depression and even suicide.

The last epidemic began in 1889 and 1890, after a period of forty years of comparative immunity. It had been the experience in former epidemics, in so far as medical literature affords us an insight into their history, that the disease raged for two or three years, abated and finally disappeared; but the history of the present invasion has been far from this. Influenza has been epidemic almost every year since 1890, in this country at least, and, if we can judge from the English writers², the same conditions have prevailed in Great Britain. An editorial writer there says: "This is the tenth consecutive winter during which epidemic influenza has prevailed in Great Britain. The epidemic began, it will be remembered, in October, 1889, after a period of immunity which had lasted for nearly forty years. It was hoped at the time that, after prevailing for one, two or, at most, three years, the epidemic would pass away, as had been observed on previous occasions, but this anticipation has been, to a great extent, falsified, and the annual recurrences, although they have not been so extensive as during the first two years, have been sufficiently widespread to cause very serious inconveniences on many occasions, very distinct increase in the death-rate, and, as is generally believed, a notable accession to the number of chronic maladies, especially of the nervous system, which are characteristic of the present generation."

Numerous other reports confirm the opinion that this influenza epidemic has been remarkable for its universality. Norway and Sweden, Italy, Turkey³, Russia and Greece, all have shown a marked epidemicity. Whereas this chronicity has been unpar-

alleled, yet, at the same time, in so far as the United States is concerned, there seems to have been a distinct period of comparative quiescence with, in 1900-1901, a recrudescence. With this recrudescence, if the influences of suggestion can be eliminated, it would seem that the disease was of a different type, or rather that one particular portion of the body bore the brunt of the attack, namely, the nervous system. This point of view was stated in the *Medical News*⁴, in the letter from the London correspondent of that publication, who wrote: "And still the influenza spreads in London, in spite of beautifully mild, bright, sunny weather for two weeks past. All practitioners report the type of the disease as quite mild, and yet the death-rate keeps steadily rising from 22, four weeks ago, to 50, 74 and, last week, 113 deaths per week. One cannot help suspecting that, as in previous epidemics, influenza, like charity, covereth a multitude of sins of careless diagnosis, and that, even when it is the precipitating cause of death, it acts simply by striking some previously weak point in the defences of the organism, or lighting up some smouldering internal mine, like tuberculosis, fatty heart or granular kidney. No disease in the realm of nosology threatens so much and does so little, or produces so large a percentage of vivid fear of dissolution, with so low a death-rate."

"For the most part, in this epidemic affections of the nervous system seem to predominate, and many cases are scarcely recognizable until the characteristic stage of depression sets in, and, fortunately, as might have been expected from the general absence of catarrhal symptoms, few secondary infections with pneumonic and bronchitic inflammations are reported. In fact, curiously enough, the total death-rate is still below the mean average for these weeks of the year, and no marked increase in the mortality from respiratory diseases has yet occurred."

The question is pertinent as to the interpretation of the foregoing. May it not be true that the action of the Canon-Pfeiffer bacillus is being seen more and more in its true colors and that, like the bacillus of diphtheria, it has a specific action on the nervous system, and that this is being recognized more clearly than ever before?

It has already been pointed out that, as early as the fourteenth century, its influence of causing psychoses was recognized, and the more recent words of Kellogg, Gowers and Berkeley only serve to accentuate a belief now grown almost universal. Thus, Kellogg⁵ says: "Epidemic influenza (grippe) gives rise to some very serious forms of insanity, lingering and uncertain as to recovery, and this is particularly the case in elderly persons." It is to be regretted that this excellent clinical observer does not go more into detail on this question.

Gowers⁶ writes: "There is no acute malady, with the exception of diphtheria, after which disturbance of the nervous system is so frequent as after influenza, and there is certainly no disease that has such varied nervous sequelæ. This effect, though long known, has never been perceived so distinctly as in the severe outbreak of 1890."

*Read before the Section of Hygiene and Public Health, American Medical Association, 1902.

"Functional disturbances of the nervous system seem to be the direct effect of the action of the toxins of the bacillus, since they form almost constant features of the acute affection. Some of the more severe sequelæ, moreover, have followed second or third attacks of influenza, which were mild and sometimes even trifling. On the other hand, there has been a disposition to associate with influenza affections of the nervous system coming on six, nine or twelve months after the primary disease, without any other connection with this than some impairment of constitutional strength, such as follows every depressing acute illness. Such remote affections cannot be regarded as the specific consequences of influenza. Moreover, many of the direct sequelæ cannot be regarded as quite special, since so often previous disposition to them can be distinctly traced.

"The mental state and physical depression or inertia, seldom absent, rarely cease with the acute attack; this almost universal sequel has become familiar to every one. It is not surprising that, especially in predisposed individuals, definite melancholia should grow out of it, sometimes of the hypochondriacal type, sometimes with definite delusions, and occasionally with suicidal impulses."

More recently, Berkeley⁷ states: "Following the epidemic of la grippe in 1891-1892, and the more recent one of 1898-1899, a variety of nervous disturbances was quite prevalent, mainly in persons of latent or pronounced psychopathic disposition. The majority of the forms assumed have been those of a general neurasthenia of a severer or milder type, but there has also been quite an array of the true psychoses. The toxins of influenza seem to fall with especial stress upon the central nervous system and, besides, have a most definite depleting effect upon the general physical powers, both of which influences act with greater force upon the hereditarily unstable than upon the sound individual. At the autopsies of patients dying from the influenza poison the central nervous system is always found much congested (Geill).

"The most frequent form of psychoses following influenza is the acute confusion, at a later stage assuming the clinical picture of a hallucinatory, agitated melancholia. Mixed hypochondriacal and neurasthenic forms are also noted. The duration is comparatively short, from two to six weeks, and the eventual outcome is favorable, unless the predisposition to insanity is great.

"Stuporous states occur with less frequency than the above form, but are of longer duration, running their course, as a rule, in from eight to ten weeks. All the instances under my personal observation have been fully restored to sanity. The majority of cases is found between the twentieth and fiftieth years, very few in childhood or old age."

With this statement my experience coincides. In an analysis of some fifty patients seen in the last five years suffering from influenzal psychoses, mental stupor or confusion has been a prominent symptom in over 20%. The affinities with neurasthenia are evident.

Wildermuth⁸, in his work, also observes that the

great epidemic of 1898-1899 was followed by a long-continued state of nervous depression in many persons in Germany. For prognosis he observes that of 52 personal patients there were 26 recoveries, 17 remained insane and 9 died.

It is a point of no little importance, before going further with this inquiry, to insist that there is a marked difference between what is known as a cold and real influenza. It cannot be gainsaid that the symptoms in either case may be practically identical, but it seems evident, from the investigations of Canon, Pfeiffer, Wynekoop and others, that in nearly all cases a diagnosis may be made by means of the microscope, and that this procedure is imperative.

Concerning the Bacteriology of Influenza.

In an editorial, contributed to the January 14 (1899) issue of the *Journal of the American Medical Association*, on the recent recrudescence of influenza, it was suggested⁹ that it would be more profitable than any special observations of the geographical and historical pathology of the disease, as proposed by the Marine-Hospital Bureau, "to take advantage of the present outbreak to study the bacteriology of influenza with reference to certain mooted points of the greatest interest—to physicians, as to treatment—and to sanitarians, as to prevention.

"Is there," is asked, "an influenza vera due to a special germ, the Canon-Pfeiffer, the toxin of which profoundly affects the nerve and trophic centers, as the toxin of the Klebs-Löffler does in true diphtheria? Is there a pseudo-influenza—the so-called 'grip' of the laity, the ordinary influenzal cold or catarrhal fever—due to a mixed infection, from which the specific germ is absent; comparatively harmless as to the vital centers, and bearing the same relation to influenza vera that pseudodiphtheria does to true diphtheria? If these questions shall be answered in the affirmative by the bacteriologist, as now seems probable, the bacterial diagnosis of influenza, will be only less necessary than that of diphtheria, and may be followed by as satisfactory results."

The *Medical Age*, editorially commenting upon the same theme, says: "The term grippe seems to have a strange attraction for some people, and every febrile catarrh, of whatever kind, is called 'la grippe.' Gastric cases, headaches, sore throats, coryzas are all grippe. If Pfeiffer's bacillus be the actual pathological factor in la grippe, it is to be hoped that some ready method of detecting it may be discovered and that this unfortunate diagnosis may be settled."

I have, in the matter of diagnosis, made a few extracts from a preliminary report on the work done in the laboratory of the Department of Health, of Chicago, along the lines above indicated. These have been furnished me through the courtesy of Dr. Reynolds. The most important feature thus far developed is the feasibility of the bacteriological diagnosis of influenza vera with as much certainty and as much promptness as has been done for diphtheria by the bacteriologists of the Department ever since the Medical Inspector, Dr. Jaques, introduced his direct method of bacterial diagnosis of that disease.

F. E. Wynekoop, First Assistant Bacteriologist

for the department, who conducted these investigations, has demonstrated that, after one has become familiar with the appearance of the Canon-Pfeiffer bacillus under the microscope, it may be readily identified in the sputum and mucus of an influenza patient by direct examination without awaiting the process of incubation.

In a disease of such protean manifestations, now simulating typhoid fever, again rheumatic fever, or still again cerebrospinal meningitis or other lesion of the nervous system; a disease that often leaves an impress on its victims for years after, in various forms of mental and nervous disturbance, "from simple hypochondriasis to melancholia, mania and general paralysis"; a disease that fatally complicates so many other maladies as to increase inordinately the general death-rate of an invalidated community—in such a disease, "the demon of influenza," as it has been termed—a prompt and certain diagnosis must, obviously, be of the first importance.

According to Pfeiffer, Canon, Klein¹⁰ and many other observers, the pathogenic organism of influenza is a very minute bacillus which develops in the nasal passages, throat, larynx, bronchial tubes and blood. The organisms are present in great numbers in the bronchial secretions, and are described as occurring only during the acute stages, gradually disappearing as the disease abates. They are said to be constantly present in influenza, and not to be found in any other disorder. These bacilli, we are told, are nonmotile and, so far as is known, do not produce spores. Their length is given as 0.54 micron, and their diameter as 0.24 micron. They are usually solitary, sometimes in pairs or arranged in chains of a few elements. Some observers claim that they are occasionally found in masses, especially in severe cases. They are said to stain poorly, except with certain concentrated, very penetrating stains, and even with these only the ends of the organisms stain well, the middle portion remaining almost unstained.

Kitasato described certain cultural characters by which the bacilli can be readily identified. Their resisting powers are limited. They die quickly, when dried, and are killed within five minutes when exposed to a temperature of 60° C. They will not grow well at a temperature below 26° C., nor above 35° C., when developed on artificial media. Very few materials can be made use of for their cultivation. The best has been found to be bloodserum, which contains a little hemoglobin. Upon this, after a few hours' incubation, "colorless, transparent, drop-like colonies" appear, which resemble "condensed moisture." The colonies have no tendency to coalesce and, even under the most favorable conditions, soon die, unless frequently transferred.

Such, in substance, is the bacillus of influenza as described by a number of investigators.

In the course of examinations, made in the laboratory of the Department of Health of Chicago, for suspected cases of diphtheria prior to the appearance of influenza in that city, early in December, 1898, a very small bacillus was occasionally found, which, in its morphological characters, corresponded to the organism described by Pfeiffer. With the increase of influenza these organisms were found

more frequently, and, in order that more extended observations might be made, physicians were asked to send specimens of the sputum and mucus of their influenza patients to the laboratory, and culture outfits were prepared for this purpose. These were put up in the same manner as those used in the diagnosis of diphtheria, except that the bloodserum contained more hemoglobin.

Human bloodserum was at first used, but, finding that the serum of beef's blood containing hemoglobin answered every purpose, it was finally used altogether, since it was readily procured. Upon this medium cultures were made from the mucous membrane of the tonsils and pharynx and from the bronchial secretions of persons ill with influenza. In many of these cultures, which were comparatively free from other bacteria, transplantations were made to bouillon, a drop of which was immediately transferred to the surface of bloodserum. Three tubes or boxes of serum were usually inoculated from the same drop, and by this means isolated colonies were usually obtained in the second or third tube.

The organism isolated in this manner was found in many cases of clinically typical influenza, and in its morphological, biological and pathogenic characters conformed to the one described in the works on bacteriology. The size and shape were the same and, when examined in the sputum, so also was the arrangement. Usually the bacilli were found solitary, sometimes in short chains. When a slide was made from a culture, however, they were more often seen in masses. Carbol fuchsin seemed to be the best stain. Other staining solutions were used, but were not satisfactory.

When an examination was made after a culture had been incubated eight or ten hours, the organism stained quite evenly, but after 36 or 48 hours' incubation the characteristic uneven staining was noticed. When bloodserum was used exclusively as a culture medium, growths were obtained that were characteristic and beautiful. The colonies were clear and transparent and, in a measure, resembled minute drops of water or dew.

Influenza and Its Psychoses, Especially Suicidal Mania.

In 1901 there were recorded 7,245 suicide deaths in the United States. In 1899 there were 5,340 such deaths, an increase of 35.6%.

Causes assigned (1901) were as follows:

	No.	Per Cent.
Despondency	2980	41.1
Insanity	647	9.3
Ill health	618	8.5
Domestic infelicity	541	7.4
Liquor	439	6.0
Disappointed love	283	3.9
Business losses	67	0.9
Unassigned causes	1643	22.6

Of the total 7,245 there were 5,850 males and 1,395 females, a proportion of nearly 80% males. Physicians head the list among professional men, the record standing: Physicians, 33%; attorneys, 10%; clergymen, 10%; bankers, 6%; journalists, 6%; college professors, 1%.

The *Medical Record* (March 1, 1902, p. 339) says editorially: "The statistics given above, as to causes, are but roughly drawn up; if close analyses were

made as to motives, the results would be highly instructive from a psychological standpoint. The steady increase of the suicide habit is undoubtedly due, to some extent, to the ease with which poison may be procured." But what causes one to want to procure poison? Is poison any more readily procurable now than a dozen years ago?

In a recent *Weekly Bulletin* (March 1, 1902) of the Health Department of Chicago occurs the following passage: "Against the conditions which have produced these results (an enormous increase of mortality from pneumonia, the chronic diseases, suicide and other forms of violent death—53% more of these latter than a year ago), sanitary effort and administration can do little. Influenza, which has been prevalent, frequently in epidemic form, in all parts of the world during the last dozen years or so, not only disastrously complicates other diseases, but exerts especially a most baneful effect upon the nervous system, causing all forms of mental disturbances, from mere irritability of temper to suicidal melancholia and homicidal mania. The mental equilibrium, not only of individuals, but of nations, has been profoundly affected by this malignant malady during the last decade. The investigations of the coroner's office show that a large proportion of the greatly increased number of suicides in Chicago during this period had previously suffered from the grip. The Department has labored for years to secure proper attention to the importance of the disease, but it is still too often treated indifferently, a trifling ailment that may be 'fought off.'"

A note in the *Medical Record* (June 22, 1901, page 1101) gives the deaths by suicide per 100,000 of population between 1871 and 1900 in five American cities. During the 20 years, 1871-1890, the rate increased from 14.1% to 16.4% in New York, or 16.3%; but in the ten influenza years, 1891-1900, the rate was 21.5—an increase of 52.4% over the previous 20 years' rate. Similarly as to Chicago: The rate increased from 12.6% in the first 20 years, to 23.3% in the influenza decade.

Note that, while the total increase between the suicide-rate of the first lustrum, 1871-1875, and the last, 1896-1900, was 66.6% in New York and 82.5% in Chicago, the increase between the first and the fourth lustrums (twenty years) was only 16.3% in New York and 29.3% in Chicago, but was nearly fifty (49.4) per cent. in New York and more than forty-one (41.4) per cent. in Chicago in the ten influenza years, 1891-1900.

Influenza and Its Prevention.

Although the mortality from influenza and its collateral affections, fortunately, fall short of that recorded in the great epidemic, the situation is not free from anxiety. It is probable that, even now, many people fail to realize the fact that influenza is a highly contagious disorder and one of the most virulent of the acute specific diseases. When cholera breaks out in a community every possible precaution is taken to prevent its spread, but in the case of influenza little or nothing is done, and the patient is often unwilling to sacrifice his social engagements. It is the reckless exposure of the infected which makes the disease so difficult to eradi-

cate. Every one is exposed, more or less, to the danger of being invaded by the bacillus, and it is difficult to devise prophylactic measures on which absolute reliance can be placed. Much, however, may be done by attention to a few simple rules.

When a person is ill with influenza, it is better not to visit him or, if a visit is imperative, it is advisable to avoid unnecessary personal contact. After the interview the hands should be thoroughly washed in an antiseptic solution and the outer garments should be aired by being exposed to a current of fresh air or, better still, to the direct rays of the sun. The condition of the general health of those exposed to infection should be maintained by plenty of outdoor exercise, by good food and the avoidance of indulgence in alcohol. At the onset of the initial symptoms the patient should remain in bed and should at once obtain medical advice. No reliance should be placed on popular remedies, for the complications are so grave that the best-possible treatment is required. All articles, such as sheets and pocket handkerchiefs, which have been used in the sickroom, should be put into a vessel containing an efficient disinfectant. That recommended by many sanitarians is made by mixing half an ounce of corrosive sublimate, one fluid ounce of hydrochloric acid and 5 gm. of commercial aniline blue in 3 gallons (a bucketful) of water. It is, of course, poisonous and a good disinfectant; besides, it is cheap. Articles, after being allowed to stand for some time in this mixture, should be rinsed in clear water for three or four hours before being sent to the wash. Clothing may be disinfected in a suitable disinfecting apparatus by heat, and local sanitary authorities should be urged to give notice of their willingness to undertake this duty. After the patient has vacated his room, the furniture should be removed and cleansed and the room disinfected, preferably with formalin. These may seem unnecessary precautions, but the disease is so infectious, and its consequences so far-reaching, that it is wise to treat its risk seriously.¹¹

1. H. Fehr. *Influenza som Aarsag til Sindssygdom*. Copenhagen, 1889. See *Journal Mental Science*, July, 1899.
2. *British Medical Journal*, 1899, Feb. 8, p. 429.
3. *American Medicine*, April 20, 1901, p. 104.
4. April 1, 1899, p. 409.
5. *Mental Diseases*, New York, 1897, p. 361.
6. *Diseases Nervous System*, Philadelphia, 1900, Vol. II, p. 900.
7. *Mental Diseases*. Berkeley, New York, 1900, p. 358.
8. Extract from a review in the *Journal of Mental Science*, July, 1899, of H. Fehr's work on Influenza.
9. Dr. Wynkoop's Preliminary Report.
10. F. W. Reilly, Assistant Commissioner of Health, Chicago.
11. *British Medical Journal*, March 4, 1899, p. 559.

A CASE OF ACUTE INTESTINAL OBSTRUCTION CAUSED BY A GALL-STONE; NECROSIS OF THE BOWEL; OPERATION; DEATH.*

By J. A. SCOTT, M. D.,
of Philadelphia.

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The causes of intestinal obstruction are in the order of frequency: Strangulation, intussusception, twists and knots, tumors, stricture and abnormal contents. It is with the latter causes this paper deals.

*Read before the Section on Medicine, College of Physicians, October 13, 1902.

According to Osler (*Practice of Medicine*, fourth edition, page 534), 44 cases of intestinal obstruction due to abnormal intestinal contents have been reported in the last eight years. Tyson also quotes these same figures. Of these 44 cases, in 23 the obstruction was due to gall-stones; 18 of them occurred in women, 5 in men. This is but 8 per cent. of the cases analyzed. Many other foreign bodies have from time to time caused obstruction by their presence in the intestine; thus pins, teeth, coins, fruit-stones and other substances, swallowed either accidentally or purposely, have been reported. Masses of round worms have several times caused obstruction, and all the text-books mention a possibility of medicines, such as magnesia and bismuth, among the causative factors. However, the three most common causes of obstruction from this class are: (1) Feces, (2) gall-stones and (3) enteroliths. The feces are usually hardened, and the seat of obstruction in these cases is usually in the colon. At times in the hardened mass of feces small channels are found, through which a small portion of liquid feces can pass. The gall-stones causing obstruction are almost always extremely large, single stones. The obstruction usually occurs in the ileocecal region, though the stone may lodge either in the duodenum or in the jejunum. In these cases the obstruction is sometimes complete, at other times incomplete. Dependent upon this completeness is the severity of the symptoms. Enteroliths, or stones found in the intestine with the nucleus of a foreign body, hard feces or of hair with the subdeposition of the phosphates of lime and magnesia, are sometimes the factors in obstruction, which is also more apt to occur in the small intestine.

That gall-stones were held accountable for intestinal obstruction years ago is shown by reference to the early text-books. Thus Budd, in his text-book on Diseases of the Liver, 1846, page 286, speaks of the effect of gall-stones in passing through the intestine, seldom producing other evils than a slight colic or tenesmus. He instances one case, however, in which he saw the stone cause peritonitis, and adds that large stones can cause obstruction and even fatal ileus. In a footnote he refers to the cases of obstruction published by Abercrombie, Cruveilhier and others. As years go on, the frequency with which gall-stones produce obstruction seems to increase. Thus, the statistics of Leichtenstern (Ziemssen's Encyclopedia, Vol. VII) show that among 1,541 cases 41 were due to gall-stones. Gibson (*Annals of Surgery*, 1900, Vol. 32) finds that in 1000 operations for acute intestinal obstruction 40 were due to gall-stones.

During the past two years the following cases of obstruction by abnormal intestinal contents have been reported: Pritchard (*Münch. med. Woch.*, August 13, 1901) reports the case of a patient, 62 years old, who had had a previous attack of gall-stones and colic two years before. Decided symptoms of intestinal obstruction appeared; within three hours the patient was given 1/33 of a grain of atropine hypodermically, with the administration also of two ounces of olive oil. The following day a thin offensive stool was passed, which contained a gall-stone the size of a walnut. Recovery uneventful.

L. S. Pilcher (*Medical News*, Feb. 8, 1902) reports the case of a large, well-nourished woman, 60 years old, who de-

veloped the signs of intestinal obstruction, which began with pain about the umbilicus and vomiting. The vomiting continued and became fecal in 24 hours; the abdomen was tumid. There was an absence of shock and severe pain. Operation was performed and a stone one inch in diameter and three in circumference was found and removed from the duodenojejunal fossa. Recovery was uneventful.

R. E. Wilson (*St. Louis Medical Review*, Dec. 21, 1901) cites the case of a stout woman, 60 years old, whose previous health had been good except for an occasional attack of intestinal colic, which was relieved as soon as the bowels were moved. Her first symptoms were intestinal colic increasing in severity for one week; no bowel movement for five days. Vomiting from the sixth day; became fecal in twelve hours. The belly was tender and tympanitic. A stone the size of an English walnut, called an enterolith, but doubtless a gall-stone, was found and removed at operation. Recovery was uneventful.

Troisier (*Bulletin de la Soc. Méd. des Hôp. de Paris*, May 30, 1901) reports the case of a stout woman, 60 years old, who had had no previous attack of colic or icterus, who, however, exhibited all symptoms of intestinal obstruction for eight hours, soon after which she passed by stool a gall-stone measuring 7.5 cm. in circumference and 25 mm. thick, weighing 7 drams.

Before the Liverpool Medical Institution, W. Blair Bell (*Lancet*, Nov. 24, 1900) showed two specimens of large gall-stones which produced intestinal obstruction with fecal vomiting. No jaundice was present in either case. It is not stated whether they were passed by the bowel or recovered by operation. He also (*Lancet*, Nov. 24, 1900) reports a case of obstruction of the ileum, due to the presence of a plum-stone on the proximal side of Meckel's diverticulum.

John H. Lowman (*Cleveland Journal of Medicine*, Sept., 1900) reports three cases of intestinal obstruction due to gall-stones. The first patient: A woman, 55 years old, always healthy, florid, weighing 170 pounds, no history of colic, indigestion, pain, jaundice or anything that would point to stone. Her first symptoms were slight general abdominal pain, increasing in 24 hours; no fever, slight tenderness in the region of the appendix, no distension or rigidity. Vomiting on the third day, retching, late on the same day fecal vomiting began. Still no fever or rigidity, but she had violent pain. No relief on the fourth day, beginning prostration. Following an enema of magnesium sulphate and castor oil with two quarts of hot water, some relief was afforded, and two hours later an egg-shaped stone, 34 mm. long and 20 mm. wide, was passed by the bowel. Recovery uneventful.

Second patient: A young woman was suddenly seized with colic during the afternoon. During the evening she had increasing paroxysms of pain with intervals of ease. Tenderness in appendiceal region, but no rigidity; dulness, no bowel movement. In the morning pain was still severe, no vomiting. Operation decided upon. Enterolith discovered on ileal side of ileocecal valve.

Third patient: A woman, 40 years old, known to have gall-stones, had sudden pain in the lower abdomen, which increased rapidly in violence and frequency, so that in eight hours she was in great agony. Pain continued for two days, and then rapidly subsided. There was tenderness over the appendix, constant severe paroxysms of pain with intervals of ease and no fever. By rectum marked resistance on right side; no movable mass. No stone was recovered from the stools.

Intestinal obstruction produced by other unusual causes has also been reported. Thus Halsted (*Annals of Surgery*, April, 1902) reports a case of intestinal obstruction occurring in a man of 25, from Meckel's diverticulum.

M. C. Atkinson (*Lancet*, Feb. 23, 1900, page 556) showed a patient before the Sheffield Med. Chi. Soc. who developed intestinal obstruction from a right-sided hydronephrosis. Operation and recovery. Pressure was exerted upon the transverse colon and stomach.

The following case of acute intestinal obstruction has recently been seen by the writer. The cause of the obstruction was the presence in the jejunum of an unusually large single gall-stone:

The patient was a woman, 67 years old, who came from long-lived stock. Past history: She has had good general health. In '59, at the time of her father's death, she had

a severe attack of cardiac palpitation. She has had six attacks of influenza since '90; three of them moderately severe. For twenty years the first joint of the first finger of the right hand has been enlarging. At times the great toe has also ached, and sometimes the left knee has been sore. She has never had acute articular rheumatism. When she has been seriously ill the heart's action has been weak, and on one or two occasions it was alarming. Extending over a period of about ten years, she has had considerable intestinal pain, considered by her attending physicians to have been due to intestinal colic. At one time her physician told her that the symptoms resembled those of gall-stones, though none of the other symptoms seemed to corroborate that diagnosis. She has never been jaundiced. Since coming under my care, 4 years ago, she has had one such attack of pain, which was localized in the left splenocolonic region. There was slight distension of the abdomen, the temperature 100 1-5°, pain was sharp, increased by the pressure of corsets, relieved by their removal. Bowel movements were bilious. The pain is never present when the patient is active; it always comes on when she is sitting down sewing. It is much worse when she is constipated. On palpation nothing is felt more than a distinct tender spot just below the costal margin in the left midclavicular line. The kidney is not felt in the erect position. There was, and doubtless has been for some years, a faint, high-pitched, soft, systolic murmur heard at the apex, and also at the second left costal cartilage. The aortic sounds were clear. She always has been rather a free eater of rich foods, and her diet has been difficult to curtail. During the past two years, at intervals of every few months, she has had slight diarrhea lasting for a few days and associated with mild colicky pains. She usually treated herself for these attacks. She is a large, rather stout woman, weighing about 180 pounds, with strong regular pulse of plus tension. She has not needed any medical advice during the past winter except for the diarrhea before mentioned, and had, with my permission, visited relatives at an altitude of about 6,000 feet during the early part of last fall without discomfort so far as her heart was concerned.

I was called to see her on the evening of Jan. 28, 1902. I learned that she had had diarrhea for a week, with several stools daily, which were semisolid, accompanied with some slight colicky pain in the abdomen. This had been partially relieved by a mixture containing large quantities of bismuth with a small amount of opium. The same afternoon she had attended a tea, at which she had eaten ice cream, cranberry tart and other foods. About an hour later she felt sharp, severe colicky pains in the lower abdominal zones and about the umbilicus. She felt nauseated, but did not vomit. Before my arrival she had induced vomiting with her finger; she stated that it was bilious. When seen at 9.45 her pulse was about 80, strong, full and regular. The abdomen was not tense but soft: there was no local tenderness, though she seemed to be a little bit sore. She was given 1/6 grain of morphine and 1/150 grain of atropine hypodermically, with turpentine stupes applied externally, and a chloroform mixture to take internally. The hypodermic injection, however, relieved the pain for about an hour, which returned about midnight and necessitated more morphine at 12, 5 and again at 8 o'clock A. M. The bowels had not moved during the night, though an enema had been given. A nurse was secured about 9 A. M. A large soap and water enema induced a large bowel movement, and from 9 until almost 2 o'clock she was without pain and comfortable. The temperature had risen to about 100° and the pulse to 120. During this interval of quiescence she was given one and one-half grains of calomel in divided doses, which was followed by one-half bottle of magnesia. She had, however, passed no flatus by the bowel. There was no evidence of any local abdominal tenderness. About 2 o'clock the pains again became severe, and were compared by the patient to labor pains. They would occur at intervals of from 15 to 20 minutes, nausea was more or less constant, and once or twice she vomited watery material containing considerable green bile. The temperature remained but slightly elevated, the pulse-rate about 130, beginning to be slightly irregular. The face was much flushed; no sweat, no chills. There was now slight tenderness in the lower abdominal zone, (but no rigidity,) perhaps more marked in the right iliac region. Rectal ex-

amination was negative; urination was normal. The second enema brought nothing but water in return. A consultant was called at 9.30. Our opinion was that symptoms of obstruction were present, though the cause of obstruction was in doubt. The consultant was inclined to think that it might be due to an appendicitis. We both agreed that the patient should be removed to the hospital, and then be given a high injection of hot oil, which, if not successful, should be followed by operative measures. The leukocytes, counted at 10.15, before admission to the hospital, numbered 27,733 per cmm.

She was removed to the Pennsylvania Hospital, Phila., about midnight. Prior to her removal the pain was considerably eased. While in the receiving ward, she vomited copiously a brown watery material with some bile in it, not fecal in odor. This seemed to relieve her very much. When examined by Dr. LeConte, the consulting surgeon, just prior to this vomiting attack, the abdomen showed no distension, was not rigid nor tender, and the patient had no pain. Dr. LeConte was of the opinion that the obstruction which existed was mechanical, and advised against operation at present. He recommended the use of repeated high injections, and the administration by the mouth of active cathartics. She was removed to a private room in the hospital, and was given ten grains of jalap powder with five of calomel, and at 2 and at 6 o'clock a high enema of hot sweet-oil. She slept from 3 to 6 o'clock. Flatus was passed with the second oil enema. The pulse, however, remained about 120, of fair volume. Since midnight no pain and no vomiting were present; no change in the abdominal condition. The temperature remained at about 99°. At 3.30, the following afternoon, following a large soap and water enema, which contained also 2 oz. of magnesium sulphate and one oz. of glycerine, the nurse reported a large stool, liquid, containing no blood, but considerable fecal matter and a little mucus. Subsequent to this the patient became somewhat cyanosed, the pulse more frequent and rather feeble. Under stimulants, however, it soon rallied. At about 4.30 nausea began, and before 6 vomiting. By 6.30 there was a fecal odor to the vomit; the temperature fell to 98°, the pulse volume was small. Dr. LeConte, who had seen the patient at 10 and 3, was again called, and he advised immediate operation. This was performed at 10 o'clock; the patient's condition was, however, rapidly growing worse. There was slight sweat visible upon the face, and the hands were somewhat dusky. The leukocytes, which had been counted at noon, had risen to 33,000 per cm., and again dropped to 27,000 at 8 P. M. Upon opening the abdomen there was a small quantity of bloody fluid present in the peritoneal cavity. No internal adhesions were present, though the serous membrane was injected. Upon withdrawing a portion of the small bowel through the wound, it was seen that some 10 to 12 inches of the gut, with its mesentery, were intensely edematous, injected and sharply delimited from the bowel above and below. There was no evidence of appendicitis, twist or intussusception. The gut had a cadaveric odor. Dr. LeConte made a rapid and extremely skilful resection of this necrotic area. He also removed from just below the resected area a single nonfacetted gall-stone, the size of which was sufficient to obstruct the gut more or less completely. The patient took very little ether during the operation, not more than 4 oz., and at the exposure of the intestines became almost pulseless, but liberal stimulation with the use of oxygen, improved her condition slightly during the remainder of the time occupied, in all not more than 28 minutes. Before she left the table she was conscious; the pulse became better and stronger for several hours, but then slowly grew more frequent and feeble, and death resulted at 5.15 the following morning from cardiac exhaustion. There was no vomiting subsequent to the operation.

The following is an abstract of the description of the specimens by Dr. Longcope, the resident pathologist of the hospital:

The specimen removed consisted of about a foot of jejunum; the surface was covered with rather thick fibrous adhesions; the gut was partly filled with a bloody fluid; the mucosa was deeply congested, with greatly thickened walls, apparently filled with pus. When pressure was made a thick, yellowish, purulent matter exuded. This condition existed for about 20 cm. in the middle portion of the specimen. The main suppuration was confined to the sub-

mucosa. The stone removed at operation measured $4\frac{1}{2}$ by $2\frac{1}{2}$ cm.; it weighed $10\frac{3}{4}$ gm., or 190 grains. Its surface was encrusted with salts and fecal material. On section, the stone consisted of a yellowish crystalline substance which radiated from the center into concentric lines. Its chemical examination by Mr. Stanton showed its composition to be almost exclusively cholesterol. The examination of the removed intestine showed a most acute inflammatory and necrotic process of the mucous membrane, with an extensive suppurative area.

Unfortunately, we were not permitted to make further examination of the body after death. The condition of the gall-bladder cannot, therefore, be stated, but from the symptoms present during the 48 hours prior to death, and the previous history, the following conclusions can be drawn: That the patient has had gall-stones for many years, though no such diagnosis had been made by her physicians, nor was the pain that she suffered since being my patient ever in the region of the gall-bladder or near it. The sudden attack of pain in her last illness was probably primarily gastro-intestinal, due to indigestible food when the bowels were already disordered. The stone had for a long time been slowly ulcerating its way into the duodenum. Diarrheal attacks in the past few years may have been due to a catarrhal condition of the duodenum. With the acute colicky pain of the attack the stone was forced into the lumen of the bowel, and from that time on began the symptoms of more or less obstruction. The obstruction did not seem to have been complete, for flatus was passed 36 hours after the onset of sickness, and the bowels moved subsequent to this. The absence or the sudden cessation of pain after the first 24 hours of illness is interesting. In these abdominal cases it is ominous at times. The absence, however, of either tenderness, rigidity and temperature necessitated, and, I think, wisely, a postponement of operative measures. The increased leukocytosis was the one significant symptom calling for operation, combined with frequent pulse. The cause of this acute suppurative enteritis with local peritonitis, the presence of a large gall-stone was not considered by any of her physicians.

In reviewing this case, in which we failed to make aught but a symptomatic diagnosis of obstruction, two questions may be briefly discussed: The diagnosis of (a) the situation of the obstruction; (b) the nature of the obstruction.

The situation of the obstruction is not so difficult to determine, and there are some few general rules to assist us. The more common symptoms of obstruction are constipation, pain and vomiting. In some cases, however, constipation is absent altogether; in fact, there may be a diarrhea. This is notably so in intussusception. In obstruction in the ileum, high up, vomiting is apt to occur rapidly, and it may become fecal early. In such obstruction the urine is almost suppressed, and tympanites is frequently not present.

In obstruction of the lower portion of the ileum and in the neighborhood of the ileocecal valve, during the spasm of the bowel the coils of the small gut stand out prominently one before the other, either obliquely or transversely placed, the so-called "ladder pattern."

In obstruction of the colon, meteorism is apt to be extreme, and the outline of the colon can frequently be made out; tenesmus is at times prominent. Obstruction of the cecum presents symptoms similar to those of obstruction of the lower portion of the ileum. There is tumidity in the lower central region; vomiting soon occurs and becomes fecal. As a general rule, the lower down the obstruction, the less rapid is the collapse and the presence of the cardinal symptoms.

The nature of the obstruction. This is a

very difficult question to determine. The most common cause is *strangulation*. This is usually found in patients with a previous history of abdominal operation, previous attacks of peritonitis, and is not very common in the earlier years of life. *Intussusception* is more common in childhood, and, because of the presence in a large percentage of the cases of a tumor-like mass, bloody stools and tenesmus, is more readily diagnosed than any other form of obstruction. *Volvulus* more frequently affects the colon either in the sigmoid or the cecal region; meteorism is usually excessive. The diagnosis of obstruction by hard feces is not, as a rule, difficult; a doughy mass can usually be felt both by abdominal palpation and per rectum. In obstruction with gall-stone the previous history is important. Most of the cases reported have occurred in women past 50 years of age. We know, however, that gall-stones exist in many women without ever having produced active symptoms. Jaundice is present in comparatively few of the cases reported. Not infrequently the obstruction is incomplete, and on that account the symptoms are not as severe as in cases of true obstruction. The stone slipping from time to time through the gut may permit a passage of flatus, and the symptoms of collapse are not seen until late. Thus, in my own case the pains were paroxysmal; there was no vomiting until about 18 hours after the first symptoms; no evidence of collapse but a flushed face with normal urine; no evidence of either localized or generalized peritonitis. This I consider as an important point in obstruction caused by one or another of the abnormal contents of the bowel. Unless the obstruction is complete, the inflammation is rather slow in its extension through the coats of the bowels to the peritoneum, and it is not until late that we have the peritoneal symptoms, if they become at all well marked.

We must, of course, eliminate some of the commoner causes of obstruction, such as hernia, for instance; we must remember that symptoms of obstruction are sometimes present in appendicitis and perforation, and, again, unusual conditions, such as the case of a right-sided hydronephrosis, will produce obstruction. A differential diagnosis between acute mechanical obstruction and that due to an inflammatory process can be made out at times with some certainty. C. B. Parker (*Cleveland Journal of Medicine*, page 402, September, 1900) states that in acute mechanical obstruction there is an absence of constitutional symptoms and active peristalsis; local distension, at first with paroxysmal pain, without due cause being found for such symptoms.

In obstruction due to *inflammatory process* (i. e., general peritonitis) constitutional symptoms appear early, peristalsis is diminished and finally absent; tympanites is general, pain is continuous and a pre-existing lesion can be demonstrated. In obstruction by gall-stones, frequent paroxysmal attacks of pain without fever become an exceedingly important diagnostic sign. Lowman (*loc. cit.*) calls attention to the pain occurring in the ileocecal region in cases of cholelithiasis or stone as being due to the obstruction of the passage at that point.

In regard to the treatment of intestinal obstruction there is but little to be said. Dependent upon its cause and with the diagnosis made, operation is usually indicated. Intussusception, in which there is a tendency to recurrence, has been relieved by mechanical means, such as high enemata. There is opposition among our best teachers to the use of active purgatives in obstruction. In this connection, however, Packard (*Philadelphia Medical Journal*, May 24, 1902) advocates the use of the sulphate or salicylate of eserine in doses of 1-100 of a grain twice a day in obstruction due to the atony of meteorism. McKean Harrison (*British Medical Journal*, April 26, 1902) reports two cases in men, 60 and 80 years old, respectively, with symptoms of intestinal obstruction of seven and three days' duration, with relief in each instance upon the administration of $\frac{1}{2}$ pound of quicksilver. With an assured diagnosis, however, I should prefer to put my patient in the hands of a good surgeon at the expiration of 48 hours than to put my trust in the effectiveness of therapeutic measures. Had we operated 36 hours earlier in my case, a brilliant recovery would, I believe, have ensued.

THE SURGICAL TREATMENT OF THE ENLARGED PROSTATE.

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Few subjects have a greater claim upon our attention and therapeutic resources than the complications and sequelæ of hypertrophy of the prostate gland. I may also say, without much exaggeration, that about few important and lethal pathological conditions have we less scientific knowledge. I may also add, with credit to our profession, that there are a host of earnest and zealous workers in this field, and that light is beginning to dawn on a hitherto obscure condition.

The prostate gland is now, by pretty general consent, classed among the sexual organs. Walker states that removal of the prostate in rats is followed by sterility, although sexual desire and the production of spermatozoa continue. Beside this statement we may put that of Lahnstein that "the reaction of the prostatic secretion has no influence on the vitality of the spermatozoa." Lahnstein states that the secretion in chronic prostatitis is generally acid in reaction, and that retained testicular secretion appears to increase the secretion of the prostate.

These observations throw but little light on the hypertrophy of the gland, unless it be this, that, when the energy is no longer used as a sexual organ, it is converted into an influence resulting in hypertrophic overgrowth. Ciechanowski, however, after a very extensive study of the prostate, expresses the opinion that senile hypertrophy is in no sense a neoplastic process; that it is essentially the result of chronic inflammation of extremely slow progress, and that, while it may be excited by gonorrhea, yet it occurs independently of that disease.

The symptoms and sequelæ of prostatic hypertrophy are better known than the etiology, although indeed we are very much in the dark here. Symptoms are sometimes present without any very great

enlargement of either the vesical or rectal portions of the gland. The claim of the French school, represented by Guyon, that the hypertrophy is part of a general condition of senility in which arteriosclerosis is a prominent feature, is not, I take it, very generally accepted. Certain it is that in the presence of prostatic hypertrophy there is marked loss of power in expelling the urine, although a full-sized catheter may be passed without difficulty. So much is this the case that I have sometimes wondered if the nerve supply to the muscles of the bladder was not early involved. Dr. MacTaggart is now carrying on for me some investigations having in view the determination of this point.

If an ordinary-sized catheter can pass readily into the bladder, it would seem logical to infer that the difficulty in expelling the urine must be attributed to some other cause than obstruction. Is there mechanical obstruction when the urethra admits a full-sized catheter? If so, then it is of a nature easily overcome by the catheter, such, for instance, as compression of the urethra between the lateral lobes of the prostate, especially during the act of urination. The indications, at any rate so far as we understand the condition, are to lessen the size or remove altogether the prostate gland.

After reading McGill's paper, published in 1889, I adopted his method and removed through a suprapubic incision more or less of the prostate in nine cases. At first I removed only portions of the middle lobe by means of scissors, but in the last six cases operated upon by this method I simply made a small incision through the mucosa and inserting my finger shelled out all the hard lobular portion. I believe that in these cases I did exactly what Freyer is now doing, and left no part of the prostate that was palpable as a hard mass. The mortality from one cause and another was so large that I did not feel justified in continuing the practice. The deaths were due, in two patients, to complete suppression of urine, and in two others to a slowly developing toxic condition, although free drainage was established through the suprapubic wound and through the urethra or through a perineal incision with frequent bladder lavage.

While in Glasgow, in 1896, Professor, now Sir Wm. Macewen, told me that he had given up the McGill operation for the same reason. The mortality was too great. He had removed the prostate through von Dittel's perineal incision in a few instances with satisfactory results. When I returned home I put in practice this latter method in one instance. The patient was a poor subject for operation, suffering from marked renal insufficiency, prostatic cystitis with ammoniacal urine. The anesthetic and manipulations were followed by a gradual diminution in the secretion of urine and the occurrence of a group of symptoms generally supposed to indicate uremia. From that period until 1900 I contented myself with giving this class of patients such relief as could be obtained from catheterization, bladder lavage and such drugs as boracic acid, salol and urotropin.

Like, I suppose, many other surgeons, I have followed with very great interest the published

reports of Bottini and his followers concerning the local application of the cautery to the vesical surface of the prostate. This treatment has been in use now for about 30 years, and yet only recently has it received the attention to which, perhaps, it is entitled. There are many reasons for this apparent neglect.

To be applicable, the urethra should be passable. The apparatus is more or less complicated; serious accidents have followed its use. Freudenberg accidentally incised a fold of the bladder, and death resulted. In several instances death has followed the division of the membranous urethra, with hemorrhage and extravasation of urine. In another of Freudenberg's cases the beak burned through into the rectum, causing death. It is, so to speak, an operation in the dark and is not suitable for pedunculated outgrowths of the middle lobe into the bladder. Those of us who have operated frequently on hypertrophied prostates through a suprapubic incision fully appreciate the size and turgescence of the veins lying about its base. If considerable hemorrhage should occur from one of these, one could hardly hope to arrest it with the Bottini apparatus, for it would be impossible to locate its source. Yet these are accidents, and one might hope by experience to avoid most of them if the results in the successful cases were satisfactory.

On this point I will quote Freudenberg's statistics. He collected reports of 752 cases in which the result was good in 86.6%, failure in 6.7%, with a mortality of 4.5%. These figures are rather better than those given by some other writers, but all agree that the results are satisfactory in 60 to 80% of the cases; that is, that in 60 to 80% of the cases the patients are able to dispense with the use of the catheter and to void their urine naturally.

It occurred to me some years ago that, if the application of the cautery to the prostate in this more or less imperfect manner was followed by such good results, still better results should follow a more thorough and systematic application. I thought that through a suprapubic cystotomy wound the prostate could be thoroughly exposed and the point of the cautery could be applied directly. That this technique should enable the operator, by means of the cautery, to remove any projecting middle or lateral lobe and to get at the same time all the benefit possible from its local action to the part left behind. These ideas I first put into practice during the spring of 1900.

The patient had been living a catheter life for about two years. The technique was carried out without any difficulty, and the patient left the hospital able to pass his urine the natural way without any trouble whatever. I regret very much that a most careful search has so far failed to find the hospital report of this case. He recovered and the result, when he left the hospital, was quite satisfactory.

The second patient was operated upon on October 27, 1900. He was 74 years of age; had led a catheter life for between 2 and 3 years, and came for treatment because he could no longer introduce the catheter without difficulty and pain. I opened the bladder with the patient in the Trendelenburg position. The mucosa was red and soft. After most of the water, which had been used to distend the bladder, had escaped, a mixture of pus and ammoniacal urine with a little blood

was found in the space behind the prostate. The middle lobe projected below the internal urethral orifice as a little tumor the size of a marble; the lateral lobes were very much enlarged. While steadying the parts with a tenaculum, the middle lobe projection and all that portion of the lateral lobes, standing forward from the general level of the bladder wall, were removed by the application of the thermocautery. In doing this the remainder of the prostate must have been considerably influenced by heat. I was very careful to avoid the mucosa around the urethral orifice and so left a cauterized area that in healing would contract, open the mouth of the bladder end of the urethra and draw up the floor of the bladder. After washing out thoroughly with sublimated solution, 1 in 3,000, I introduced a catheter into the bladder through the urethra and secured it, closing the bladder wound by means of three rows of sutures. The skin edges were approximated and held by silk-worm sutures. On the fifth day after the operation the eye of the catheter became occluded, probably with detached fragments of charred tissue, and urine escaped through the incision. A drainage tube was inserted and daily bladder lavage thoroughly carried out until the suprapubic wound closed. He was discharged on November 10; his urine at that time contained some pus and was slightly alkaline. He could pass his urine freely without a catheter. I have a letter from his son, a physician, dated August 14, 1902, nearly two years after operation, saying that the result is entirely satisfactory. He has better health now than for a number of years; there is some slight difficulty in starting the stream, but it passes comparatively freely. There is no pain at any time, and he has never used a catheter since leaving the hospital.

Third case: J. M., aged 63. Operation March 8, 1901. About a week before admission to the hospital he found himself one morning unable to pass his urine. He states that never before had he had any difficulty in urinating. His family physician, Dr. S. F. Wilson, passed a catheter and removed a large quantity of urine (said to have been two quarts). The catheter was passed three or four times during the next few days. He again failed to expel his urine voluntarily, and his physician could not pass the catheter again. On admission to the hospital the bladder reached the umbilicus. An attempt was made to pass a catheter, all varieties of soft and large prostatic silver catheters were tried in turn, without avail. The bladder was then relieved by aspiration, two pints of urine being drawn off. Aspiration was repeated at intervals for 48 hours. I then operated as in the previous case. The middle and lateral lobes were burned down to a level with the bladder wall, careful avoiding the inner opening of the urethra. I may say here that the urine was ammoniacal, alkaline, Sp. Gr. 1,002, no albumin, sugar or casts. The vessel walls were only moderately thickened; tension not increased. His recovery was as satisfactory as one could expect. He was discharged from the hospital on April 9, 1901, 32 days after operation. He is now apparently in perfect health; he says he passes his urine freely and without any difficulty whatever. He is strong and well and has gained 20 pounds in weight since his operation, and was to marry his third wife on the fifteenth of last month. On further examination I find that he micturates about every two hours during the day and three or four times during the night. There are 2 ounces of residual urine.

Case 4. H. M., age 73. Operation October 29, 1901. Has led a catheter life for 15 years. Urine acid, 1,026, no albumin, casts or sugar; residual urine 8 ounces. Arteries somewhat thickened. I operated as above. Perfect recovery. Can now pass his urine quite freely. He occasionally calls to have his bladder irrigated.

Case 5. C., presented himself complaining of inability to pass urine and of great pain, which is almost constant in the neighborhood of the bladder and sacral regions. One year ago he was treated by the Bottini method with improvement of short duration. Operation as in the preceding patient. On opening the bladder I found two phosphatic calculi lying behind the prostate; they were each the size of a pigeon's egg. The prostate felt very hard. Examination per rectum revealed the prostate to be considerably enlarged, but smooth and not nodular. The pathologist

reported that the part removed was malignant. His recovery was slow. He left the hospital with the suprapubic wound closed, and he could pass urine naturally. I have learned that he is still alive, but, as might be expected, suffers more or less from bladder distress.

Case 6. J., aged 60, admitted to the hospital January 25, 1902, complaining of pain in the loins, frequency of micturition, especially at night, and of weakness and dizziness. He says that he has had scarlatina, typhus fever, fracture of right forearm, fracture of ribs, fracture of left wrist; inflammation of the bowels; typhoid fever and a number of other accidents and ailments. Had trouble in passing urine for the first time six years ago, which he attributed to a cold. Ever since that time he has been obliged to rise three or four times at night to pass urine. Four years ago he passed a considerable quantity of blood through the urethra. At this time he was given two catheters by his attending physician to be used when required. He often had much difficulty in passing them, to use his own words, the "passage gets blocked at the bladder." Before entering the hospital he passed some reddish matter mixed with the urine. It had a very foul odor. Urine acid, Sp. Gr. 1.015, no albumin and no sugar, microscopically a few pus cells, amorphous urates and uric acid crystals were found. Per rectum the prostate is felt to be smooth, moderately hard and very much enlarged. It was recognized as a nonmalignant simple hypertrophy. I removed all that part of the prostate projecting into the bladder by means of the thermocautery, on February 4. A number of uric acid crystals were found lying in the bladder when it was opened. The result in this case has not been very encouraging. Since the operation he has used the catheter a great deal. Lately, however, he can pass his urine naturally and freely, using the catheter only once during the night. The stream starts slowly, and sometimes he feels considerable pain in the bladder. The urine is very acid, and this may partly account for the persistent trouble.

Case 7. A man, aged 64, could pass no urine naturally and was entirely dependent upon the catheter. His urine was ammoniacal, contained albumin, granular and hyaline casts and had a specific gravity of 1.002. His bladder was in fairly good condition, but the urine became gradually less and less, and during the 72 hours preceding his death it amounted to only from 3 to 7 ounces per day. His temperature remained continually below normal, and he died 32 days after operation. There was marked general arteriosclerosis.

My colleague, Dr. Elder, writes me that he has adopted this method of treatment in three patients. Their ages were respectively 55, 63 and 66. The first two left the hospital in an excellent condition, the wound healed and the urine was passed naturally and freely. The third had a large phosphatic calculus in the pouch behind the prostate. When he left the hospital the suprapubic opening was not quite closed. He was the subject of chronic Bright's disease. It is too soon to say yet what the ultimate result in this case may be.

Now I claim for this method a very great degree of safety. I have never felt that we had an operation for the relief of the symptoms of enlarged prostate that could be confidently recommended to a man who was in fairly good general health and who had just arrived at the time when he must begin a catheter life. I think that this plan of applying a cautery direct to the prostate, the procedure being carried out with the parts and instruments in plain view, is a safe operation and can be recommended with confidence. Many of the patients come to us now when the bladder is septic, the kidneys irretrievably damaged, and such a condition of heart and bloodvessels present that even the most trivial operation is hazardous. As soon as there is developed a method of treatment that is safe and effective, just as soon will the profession feel called

upon to submit their patients to the surgeon while they are in a condition to undergo an operation.

The suprapubic operation enables the operator to recognize to what extent the prostate extends into the bladder, and which lobe, whether the middle or lateral, requires to be dealt with; to determine the condition of the bladder wall; to remove any stone present. By the cautery as much tissue as desired can be removed, a nonabsorbing charred surface remains—this is an important point. The bladder in many of these cases is essentially septic. The field of operation is necessarily bathed with pus and septic urine, and a nonabsorbing area is a protection against absorption and toxemia. Another most important point is that a cicatrix is left which in healing undergoes the inevitable contraction, hence opens and lowers the internal orifice of the urethra and tends to raise the floor of the bladder. Any procedure followed by a possible subsequent narrowing is faulty to that extent. In one case, in which I removed the whole prostate by enucleation through a suprapubic cystotomy incision, the patient subsequently suffered from a contracting of the vesical end of the urethra. From time to time for several years, in fact as long as he lived, I was obliged to pass dilating sounds.

Hemorrhage can be effectually controlled. Whether this method of dealing with hypertrophied prostates will be followed by permanently good results or not remains to be seen. Judging from the results obtained by Bottini, it seems to me to be a legitimate hope that a much more thorough application of the cautery with, at the same time, complete removal of all of that portion projecting into the bladder should give a still greater relief from symptoms and freedom from recurrence. It, at any rate, so far as my present experience can guide me, offers us a safe operation which can be recommended to men just arrived at the time when they must begin the regular routine use of the catheter with all its dangers and annoyances.

Up to the present I have endeavored to close the bladder after operation, and although I have done this very carefully with two or three rows of sutures and provided drainage through the urethra by means of a soft rubber catheter, yet my attempt has failed in every instance. Generally on the third, fourth or fifth day the eyes of the catheter would become temporarily occluded with a separated piece of charred tissue, and the bladder becoming full, urine would escape through the suture line. I do not intend to try entirely to close the suprapubic opening in the bladder in any such operations that I may do in the future. I believe a smoother and more comfortable convalescence can be obtained by suturing the bladder wound around a good-sized rubber drainage tube. The outer end can be connected with a smaller tube, which can carry the urine to a proper receptacle under the bed. A catheter can be passed through the urethra and thorough lavage of the bladder effected as often as may be deemed advisable. This drainage should be maintained until all charred tissue has separated and the catheterized surface of the prostate has been converted into

a healing one. The bladder wound will close very quickly after the tube is removed.

While I am quite prepared to advocate this method in the treatment of the early stages of prostatic hypertrophy and of prostates moderately enlarged, I am not quite sure that it will be the best in all cases. When there is large tumor formation this method may prove insufficient. Here it is quite likely we must resort to some other method of treatment, as, for instance, enucleation from above or through the perineum.

Just in precisely what way the cautery influences the portion of the prostate not actually destroyed and removed I am not prepared to say. Probably, however, by destroying a certain number of vessels and nerves it not only arrests the further growth but also induces a degree of atrophy. I think that it is properly conservative. It removes the offending parts of the gland, arrests the overgrowth of the remainder without removing that portion which is harmless. The neck of the bladder and its immediate surroundings are thus left in a more normal condition than after the whole gland has been removed.

Bouffleur, in an article in the July number of the *Annals of Surgery*, recommends "transvesical cauterization" as a substitute for the Bottini operation in the treatment of some forms of prostatic hypertrophy. He speaks of the removal of a projecting middle lobe and of incisions into one or both lateral lobes, as may be required, and the division of the bar beneath the urethral orifice when indicated. This he does through a suprapubic incision and by means of the cautery. I believe Bouffleur has thus made a distinct advance. I would go further, however, and by means of the cautery remove all the projecting part of the prostate. By so doing the obstructive condition is removed and the remaining portion of the prostate thoroughly cauterized.

In conclusion, I would say that, if we are to accomplish much by the operative treatment of prostatic hypertrophy, we must first devise a safe and effective method that should win the confidence of the profession, and then we must ask general practitioners to refer their patients for treatment before the kidneys are seriously damaged, and before such changes have occurred in the musculature of the bladder wall that its contractile power is irretrievably lost.

SORE THROAT.

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Not every patient who complains of sore throat is actually suffering from angina. In popular phrase the name sore throat is used loosely to describe any pain or discomfort about the mouth, fauces or larynx. It is even applied occasionally by patients to the pain caused by blows upon, and injuries to, the neck, by fracture or dislocation of the hyoid bone, and by the pressure of enlarged glands. Pain is sometimes located by the patient in the throat in torticollis and rheumatism of various muscles of

the neck, in mumps with the usual cervical rigidity, swelling and pressure, in goiter and Hodgkin's disease with pressure upon the larynx and esophagus, and in various paralyses of the muscles of mastication and deglutition. Pain and discomfort in the throat are often complained of in consequence of the pressure exerted by tumors of the neck and of the mediastinum, of an aneurysm of the thoracic aorta, in paralysis of the pharyngeal or laryngeal branches of the pneumogastric nerve, and of the glossopharyngeal and spinal accessory nerves; in trigeminal neuritis, in multiple neuritis, Bell's palsy, late in Landry's paralysis, in acute polymyositis and in the laryngeal crises of locomotor ataxia. The various forms of stomatitis, glossitis and gingivitis and even ranula have been described as sore throat by parents when speaking for their little children. Pain is sometimes located by the patient in the throat in middle-ear disease. In most cases judicious questioning will quickly clear up the matter, but in any event a careful inspection under full illumination, with tongue depressor, speculum and mirrors, is imperative.

True angina may attend the initial rash of measles, varicella, scarlet fever, smallpox, dengue, erysipelas, foot and mouth disease, Weil's disease and syphilis. In Rötheln the throat symptoms are doubtless due chiefly to the pressure of swollen glands. There is often laryngitis in the course of measles, influenza, whooping-cough, hay fever and sometimes of erysipelas.

Ulcerations and abscesses about the throat, often with edema, may occur in any of the severer eruptive fevers, in pyemia, tuberculosis, leprosy, syphilis and cancer, and after the ingestion or inhalation of irritant poisons, gases and vapors. Itching of the throat is frequent in hay fever.

When a patient presents himself complaining of sore throat, examination may reveal nothing pathological beyond a slight redness of the posterior wall of the pharynx, the amount of pain present being out of all proportion to the visible manifestations. In such a case rheumatism of the muscles of deglutition is probably present. Such a condition will readily yield to a few doses of the salicylates. In hysterical and neurasthenic subjects a careful examination may reveal a slightly enlarged or varicose lingual tonsil as the cause of a fancied throat trouble. The sudden loss of voice of such a patient may sometimes be quickly cured by an application of cocaine to the larynx accompanied with the assurance that the voice will surely return as suddenly as it was lost if the patient will phonate immediately after the application. Discomfort in the throat may be due to paralysis of the muscles supplied by the pneumogastric, glossopharyngeal or facial nerves, causing the soft palate to be drawn to one side, enunciation to be imperfect and swallowing difficult. In such a case inquiry should be made as to recent diphtheria. Strychnine and tonics will be required with fresh air, recreation and good hygiene. Convalescence is apt to be protracted. The dryness and rigidity which attend the condition known as pharyngitis sicca often cause the patient to complain of sore throat. This condition is al-

ways secondary to nasal or nasopharyngeal trouble. The posterior wall of the pharynx is dry, glazed and creased. The mucous membrane is usually sclerotic or atrophic, like the nasal mucous membrane from which the trouble had extended. Small lumps or islands of glandular tissue may often be found between the sclerotic areas, giving the appearance known as granular pharynx. Inspissated secretion and crusts may adhere to the dry mucous membrane. The discomfort is extreme. If pharyngeal adenoids are present, they should be removed and the nasal condition should receive proper attention. An alkaline spray and applications of an iodine mixture will then secure what functional activity the parts are capable of.

Sore throat with a generally diffused redness of the pharynx is characteristic of simple catarrhal pharyngitis. It yields readily to glycerole of tannic acid, which should be applied after the surface has been cleansed with an alkaline spray. An initial dose of calomel and a gargle of chlorate of potash or rhus glabra are effective adjuvants. In lateral pharyngitis the inflammation is most intense at the outer edges of the posterior wall of the pharynx, where streaks of deeper red are visible. Edema of the uvula may accompany the above condition or may exist with but little other manifestation of inflammation about the throat and cause a good deal of alarm. It subsides speedily after scarification or incision.

Hypertrophied tonsils may become inflamed and sore; in fact, they are often subject to repeated attacks of inflammation. After the attack has subsided, they should be removed with the tonsillotome, care being taken to separate the anterior pillars if they are adherent, as a branch of the tonsillar artery often lies near the edge of the pillar.

One of the most frequent causes of sore throat is acute follicular tonsillitis, accompanied, as it usually is, with high fever, pains throughout the body and great prostration. The tonsils are red and swollen and the crypts filled with secretion which may exude and become confluent upon the surface of the tonsil. Swallowing is difficult and painful. The tongue is coated and the mouth filled with a thick, sticky secretion. As the seat of the disease is in the crypts or follicles, medication to the surface of the tonsil is not effective. Each crypt must be cleaned out with hydrogen dioxide on cotton wound tightly on a steel probe, and then wiped out with a strong solution of silver nitrate. The bowels should be opened and salicylates given internally. This treatment will always shorten, modify and often abort an attack. Cases of unusual severity and virulence are doubtless due—in the absence of Klebs-Löffler bacilli—to streptococcic infection; these require the most patient and energetic treatment. In all doubtful cases it is an imperative duty to have a culture from the throat examined bacteriologically. The practice of allowing the disease to run its own protracted and painful course, with no other treatment than an initial cathartic and an antiseptic throat wash is to be deprecated.

There is another affection of the tonsillar crypts

which has been correctly named chronic lacunar tonsillitis. It occurs usually in rather small, diseased tonsils. Altered and inspissated secretion is retained in the lacunæ or crypts, which may become cheesy and putrid, causing a bad odor and a bad taste in the mouth. The cheesy plugs may finally drop into the mouth or be dislodged by the tongue, or by a hat-pin or other instrument used by the patient. In rare cases a retained pellet may become calcified. The treatment is surgical. The crypts should be slit up and destroyed, preferably with the cautery knife. It is sometimes advisable to extend the slit from crypt to crypt; in this way a large part of the diseased tonsillar tissue may be destroyed.

Mycosis pharyngis sometimes causes decided sore throat. The fungus appears as milk-white spots on the tonsils. They must be dug out or burned out and absolutely destroyed. It is very obstinate and often extends to the posterior wall, the nasopharynx, the lingual tonsil and elsewhere.

With the exception of the angina of severe diphtheria and scarlet fever, no sore throat is more distressing than that which attends phlegmonous tonsillitis or quinsy. It is more properly a peritonsillitis, the resulting abscess, which is due to staphylococcic infection, most often pointing in the soft palate or anterior pillar of the fauces. The suffering is extreme. The mouth can scarcely be opened a half-inch. Swallowing is almost impossible. The whole throat is a brilliant red or dusky color. All parts are swollen and edematous. The uvula may be as large as a walnut. The glands are swollen and the neck rigid and painful. Incision at the point of fluctuation or of greatest tumefaction is the only effectual treatment and gives immediate relief if the pus is evacuated. If seen at an early date, before pus is fully formed, scarification gives much relief and makes a point of diminished resistance for the forming abscess. Hot liquids held in the mouth seem to give some ease and hasten the process. The bowels should be thoroughly opened.

Syphilitic sore throat occurs with the primary rash on the mucous membrane. Later superficial ulcerations and mucous patches attend the secondary manifestations, while deep and destructive lesions and gummatous breakdown of tissue characterize the tertiary stage. Cleansing sprays, disinfectants and strong solutions of silver nitrate may be used locally, while constitutional treatment is being vigorously pushed.

An enlarged or varicose lingual tonsil causes symptoms which are often described as sore throat. These patients complain of a sticking sensation in the throat and of their throat being swollen; often of a "lump in the throat," which they constantly but ineffectually try to swallow. This amounts sometimes, in hysterical patients, to a globus hystericus. Applications of iodine sometimes give relief. Often it is necessary to use the galvanic cauterization.

A sharp pain in the throat may be due to a foreign body, such as a pin, a fish-bone, a fragment of glass or a splinter of wood lodging in the larynx, the glosso-epiglottic fossa, the faucial or lingual

tonsil or elsewhere in the throat. Often it cannot be found, the pain persisting after the cause has disappeared. If the foreign body is found, it should be carefully dislodged and removed. If it has been insufflated into the larynx, it may be coughed up or may remain to cause more serious trouble later. If it has passed into the digestive tract, a diet of bread and mashed potatoes may carry it safely through.

Postpharyngeal abscess, esophagitis, spasm and stricture of the esophagus, or the impaction of a foreign body in the esophagus, all cause distressing throat symptoms which call for appropriate treatment.

The pain attending laryngeal troubles is usually described as sore throat. Catarrhal laryngitis presents a characteristic picture. The voice is hoarse or husky or reduced to a whisper. The cough is at first dry; there is a tickling sensation in the larynx. The laryngeal mucous membrane is red and swollen, and the vocal cords are pink or red. This condition is best combated by physiological rest of the parts and with inhalations of medicated steam. A cough mixture containing ipecacuanha and potassium citrate may be given. The bowels should be moved daily. In children the symptoms are apt to be severe, with fever and prostration and, perhaps, spasms. The brazen cough, purple face and spasm of croup are a source of terror to anxious mothers. A hot bath and ipecacuanha given until emesis results will usually end the attack. The so-called membranous croup is probably always diphtheritic. The chronic form of laryngitis calls for applications to the vocal cords and to any ulcerated areas present. In the tubercular form lactic acid, applied locally in increasing strength to ulcers and vegetations, is quite effective. A powder containing iodoform and morphine, insufflated into the larynx, gives relief.

Malignant disease of the larynx is, of course, surgical. The ulcerations of syphilis can only be arrested by vigorous internal medication. Laryngeal papillomata, if pedunculated, may be torn or twisted loose by forceps; if sessile, they must be picked away piece-meal with an instrument with biting lips. Paralysis of the vocal cords calls for strychnine, tonics and good hygiene. Edema of the larynx may result from injury, from the ingestion of corrosive poisons, from the inhalation of irritant vapors and from pressure on veins. It occurs in the course of some of the exanthemata, of diphtheria, typhoid fever, tuberculosis, cancer, syphilis, angioneurotic edema, Ludwig's angina and in disease of the heart, kidneys and lungs. Early scarification may often save life.

In scarlet fever the fauces and tonsils are brilliant red and swollen. The tonsils are often covered with exudate from the crypts. The cellular tissue and glands are hard, swollen and painful. A spray of hydrogen dioxide locally, the tincture of the chloride of iron and chloral internally are effective remedies.

In diphtheria the sore throat is, of course, the dominant symptom. The pseudomembrane, at

first in spots, soon covers the tonsils and may extend to the soft palate, pharynx, nares, larynx and bronchi. The mucous membrane is involved in, and forms part of, the pseudomembrane, which is easily torn by attempts at forcible removal. When the necrotic tissue is infected secondarily with putrefactive bacteria, a putrid sore throat results, accompanied with septic symptoms. The acrid, corroding discharge from the nose, the white throat, the fetid breath, the thick, brawny neck and the evidences of atrocious pain, great prostration and serious illness are impressive, apart from the alarming croupous symptoms which attend involvement of the larynx. The early use of antitoxin, in some cases without waiting for the result of bacteriological examination, is imperative. An initial dose of calomel is usually desirable. Cleansing sprays, hydrogen dioxide and mercurial solutions should be used locally, mercury, tincture of the chloride of iron and stimulants internally.

NEURASTHENIA.*

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In speaking of neurasthenia, a subject so vast, so varied and yet so very frequently found in practice, let it not be supposed that this paper covers it all, but just simply such points as have been made clear to me while treating patients suffering from it.

Neurasthenia, a term first given by Beard to a variety of symptoms which Savill recently described as "an irritable weakness of the entire nervous system, characterized by hypersensitiveness of the tactile sensibility and special senses, by headache, inaptitude for mental work, disturbed sleep and irritability of temper; by general weakness, nervousness, restlessness and vague pains, and usually accompanied by various phenomena referable to the vasomotor and sympathetic systems."

Patients usually come to one with the complaint: "I am nervous." All do not complain of the same kind of nervousness, nor are the symptoms always as pronounced in one patient as in another. Each one has a special way of describing the ache or pain, also a special place where this pain or ache manifests itself most. Again, some patient will lay particular stress upon a "headache," another will have pain around his heart, a third will have stomach trouble, and so on. Not only has each one a special place for, and a special kind of, pain, but he seems to take little heed of the places that another complains of; neurasthenics are very common and form the greatest number of any one class that come to the office of the consulting nerve specialist, and they make up the major portion of those who enrich the charlatan or quack. Neurasthenia, nervousness and nervous prostration may be regarded as synonyms, but the neurasthenic must be put in a distinct class, as every class of nervousness is not necessarily neurasthenia. It becomes highly necessary to recognize not only the neurasthenia but also the cause of the same. And since there is a definite cause for every effect, it is manifest until the cause is found and treated, the effect is likely to remain. It

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may be safely stated that all cases of neurasthenia are curable if taken in time and recognized as such. The cause must be found, even if we have to seek far to find it, and it is much better to spend a little time in diligent search for the cause than simply to ignore it and give some palliative treatment, as bromides or the various hypnotics, as sulphonal, trional, etc.

From an etiological standpoint there are two classes, the *predisposing* and the *exciting*.

Chief among the predisposing stands (1) *heredity*. As Dr. Osler puts it: "We are not all born with the same amount of nerve capital, and when the struggle reaches high tension the weaker goes to the wall." Under this head comes a general neurotic taint, alcoholism, tuberculosis, etc. (2) *Age* does not seem to be much of a factor, as it is found in all ages, but it is most common in the young adult, with a slight preference for the male sex. (3) *Sedentary occupations*, such as those of clerks, officemen, seamstresses, teachers, etc. (4) *Sexual disorders*; perversions bear a definite relation to the cause, judging from the frequency of the complaint and the morbid fears of the sexual neurasthenic.

As to the exciting causes, when we look for them we must try to estimate also the weight of the co-operating predisposing cause. The predisposing cause may be said to exist in every case, and the exciting cause becomes the last straw on the camel's back—a weakling is always a weakling, and the strongest chain is only equal to the strength of its weakest link—so it is then when the strain comes on this chain, the weakest part gives way—and hence it is, whatever be the exciting cause, the effect manifests itself in some definite part, and this accounts for the various divisions of this disease according to the organ affected.

(1) *Overwork* has probably more to do with the cause of neurasthenia than any other factor, owing to it being a cause of so many other things as well. The desire to finish up one's accounts, to complete a certain piece of work, or to be ready to undertake something else in a definite time, carries with it not only the work done, the overtime spent in accomplishing it, but also the physical and mental strain necessary for such. (2) *Grief or emotion*, especially in women. (3) *Eye-strain*. (4) *Traumatism or nerve-shock*, such as fire, railway accidents, runaway horses, etc., are found to be great factors among those with neurotic tendencies. (5) *Drug habit*, and lastly (6) comes the cause which may be said to be the pivot around which all the other exciting causes revolve, *dyspepsia, constipation and malnutrition*, which, if properly guarded against, may be able to render the co-operating predisposing causes inert. The discussion of this particular cause will be reserved for the end, meantime the symptoms will be of interest and will help us in the review work.

The most noticeable feature of the symptoms is their capriciousness. At no time may you expect any regularity of action. The most common symptom is the "tired feeling," lack of endurance, the slightest amount of exercise being sufficient to weary the neurasthenic. He is even tired on getting up in the morning.

Headache, sometimes in the forehead and again on the top or in the back of the head, comes on in many forms; sometimes as vertigo, or dizziness, and

sometimes as a constricting band around the head, Charcot's *casque neurasthénique*; *nightmares*, night terrors, delusions in the waking hours of the morning, a feeling as though they were falling through the bed, etc.

Restlessness, constantly on the move, or, as they express it, some have the "fidgets"—due in most cases to overwork and worry, such as we find in the active speculator, the energetic banker, the wearied businessman and the active physician.

The vague, uncertain pains, now here, now there, and generally accompanied by varying degrees of sensory disturbances. Here might be mentioned another point, *timidity*. These patients are *easily startled*, a touch, a slight noise renders them "nervous," they tremble and find refuge in tears, men as well as women.

Irritability of temper, hard to please, dissatisfied; *loss of memory, intellectual weakness, loss of will-power*, inability to make up one's mind to do anything. Added to these symptoms are a great many indefinite complaints, such as flushing, chilly sensations, stiffness, heaviness, prickling sensations, and last of all come the *gastric disturbances*, which have no regular type. Anacidity, subacidity, hyperchlorhydria, etc., are sometimes evident and complained of, and again sometimes are obscured and with no apparent manifestation until actually sought after. Not until the stomach contents have been examined after a test-meal do we become aware of the stomach trouble lying at the bottom of the disease.

Now, whether this stomach trouble is the cause of the neurasthenia in a general way or supervenes after the neurasthenia has manifested itself, is the question. Gastric disturbances, to say the least, are present in the majority of cases. Whether these disturbances belong to the stomach *per se* or to malnutrition following acute systemic diseases, or whether they are due to intestinal indigestion with constipation, with consequent absorption of toxic products belonging either to the improperly digested food or to effete material that ought to have been thrown off, the influence is the same and the symptoms present the same clinical appearance. We have the headache, restlessness, the bad dreams, the loss of memory, the vague, indefinite pains and general prostration in all these cases, and when we examine neurasthenic cases I am persuaded that the gastric troubles of one kind or another will be found to have antedated the neurasthenia sufficiently long to be able to account for its presence. The absorption of toxic material from the alimentary canal influences the blood in much the same way as we find it in cases of chronic alcoholism, gout, lithemia, influenza, etc.; so it is not a far step to recognize the neurasthenic symptoms as referable to toxic conditions of the blood, derived from altered or perverted nutrition, incomplete digestive products, which become poisons instead of food to the body and are consequently well fitted to engraft this trouble on a system already weakened by hereditary predisposition, or even in an otherwise normal individual reduced by overwork, excessive mental strain, worry or shock. These toxic products expend their influence on the sympathetic nervous system chiefly, and hence have a great effect on the circulation

through the vasomotor system. We find heart lesions in cases of neurasthenia which entirely disappear as the patient improves, and the capillary circulation is often very sluggish in the extremities, which are often bluish in color, cold and damp to the touch, and again subject to flushes and irregular bloodsupply. Neurasthenia has been often divided into such types as *cardiac*, *pulmonary*, *gastric*, etc., according as the symptoms are referable to one or the other organ. Now, if we are willing to accept the sympathetic system as the one chiefly influenced in this disease, and since the sympathetic presides over the circulation generally, regulating and controlling the amount of blood sent to a part, we can easily account for the symptoms by considering them as due to an irregular bloodsupply to the *stomach*, *intestines*, *spinal cord*, *head* or any part of the body which may be subject to the capricious play of the disease. The symptoms of headache, easily tiring, vague pains, restlessness, loss of memory and intellectual weakness are all easily explained on the theory of irregular vasomotor control.

I think I cannot do better than to quote Savill's report of 157 consecutive cases of neurasthenia in support of his views on this subject. Out of the 157 cases, 102 showed symptoms of definite gastric disorder of various types, 74 of the 102 antedated the neurasthenia by periods ranging from 7 years to 6 months, and 13 cases developed the gastric and neurasthenic symptoms about the same time, while in 15 the gastric disorders followed the neurasthenia. In 17 cases which have come under my own observation I find the result as follows: Twelve showed mainly gastric disorders, 2 were due to heart lesions, one to eye-strain, one to ovarian trouble and one unclassified. Such results as these point to the predominating influence of gastric disturbances in neurasthenia, yet it must not be supposed that these are the only causes of the disease. There are many others, and in the treatment the cause must ever be remembered and sought after. Eye-strains, cardiac lesions, floating kidney, ovarian disease, etc., are only some of the many other causes.

The diagnosis is made from the symptoms and, as a general rule, it is not difficult. The reflex nature of these, the variability as to time and place, and then the evidence of a few of the more common symptoms, such as headache, tired feeling and restlessness, etc., will generally be sufficient.

Neurasthenia has to be differentiated from *hysteria*, *hypochondriasis* and a few others. *Hysteria* is chiefly found in females, is more or less paroxysmal in character and not accompanied with any intellectual weakness, but lacks control of the emotions. *Hypochondriasis* is seen chiefly in males leading sedentary lives. They always have some ailment to be cured, are fond of examining themselves and are looking for trouble. Another disease for which it may be mistaken is the beginning of *Graves's disease*. The nervousness and the irritable heart are especially liable to give trouble before the eye symptoms and thyroid enlargement make their appearance. *Petit mal*, *Ménière's disease* and *malaria* are to be remembered in making a true diagnosis.

Prognosis.—Curable in all cases, if properly treated in time.

Treatment.—It may be safely laid down that the

best results are obtained by a combined treatment. The general nervous system must be set at rest and special treatment instituted for the organ which seems to be the source of the trouble. I believe in putting patients to bed, but, as Laudon Carter Gray wisely puts it, "*if you can*." Men are hard to get there and keep there, and women easy to get in bed and hard to get out of it. The Weir Mitchell modified rest-cure is excellent, as is any prescribed form of rest. Patients had better be taken away from friends, in order to secure and maintain strict discipline, which cannot always be accomplished at home. Combined with the *rest*, which is so essential, may be given the various forms of hydrotherapeutic and electric baths, massage, light calisthenics, etc., all of which I have found of decided value. Now, as to medication. It is necessary to give the patient good, sound, refreshing sleep, and, in order to do so intelligently, the cause of his wakefulness must be discovered, cardiac irritability with irregular bloodsupply to the brain, distension of the stomach with gas, whether due to fermentation, hyperacidity or abdominal distension due to intestinal putrefaction or constipation. Opium and bromides are very much used, and, while they have their uses, they should only be used with discretion. I often find that a simple laxative, a dose of digitalis, or a little soda, or even a warm drink will prove a sufficiently good hypnotic in the vast majority of cases. Something, that will increase the peripheral circulation and bring the body to a condition similar to that found in persons asleep, such as a warm bath (96° to 104°), is what is desired. Having taken account of the sleep, we turn to the removal of the exciting cause. I have been in the habit of giving an artificial Nauheim bath, with light exercise in those cases in which the circulation seemed to be in any way sluggish or in which a heart lesion showed itself, and patients derived very great benefit from the bath. They slept better, had better appetite and were free from nervousness for some hours after the bath. The *douche* and various other forms of hydrotherapeutic treatment are also of much benefit. In the majority of the cases I have found it necessary to examine the stomach contents, and rarely have I found a condition approaching the normal in those cases that I have examined; sometimes anacidity or subacidity or, again, hyperacidity or hyperchlorhydria. In 3 cases I found large quantities of mucus with little or no free hydrochloric acid. The simple correction of these conditions tends to ameliorate all the other symptoms and brings about the proper nutrition of the body. Combine this with plenty of rest and enough sleep, and the neurasthenic becomes a grateful and appreciative patient.

REVUE MENSUELLE DES MALADIES DE L'ENFANCE.

June, 1902. (T. 20, No. 6.)

1. Myotonia of Nurslings and Tetany. HOCHSINGER.
 2. Ulcerous Pulmonary Tuberculosis in a Child of Five Months. RABOT and F. VARAY.
 3. Subcutaneous Fracture of the Vault of the Skull. LÉBRUN.
 4. Right, Lateral, Subhyoid Dermoid Cyst. DESGOUTTES.
 5. The Prophylaxis of Diphtheria by Preventive Injections of Serum. SEVESTRE.
- 1.—Hochsinger has pointed out the following differences

between the myotonia of nurslings and tetany: (1) The contractures of myotonia are persistent and last for weeks. Those of tetany are paroxysmal. (2) The contractures of myotonia appear more suddenly than those of tetany, but the stiffness of the muscles increases by degrees. (3) The contractures of myotonia are not accompanied with mechanical or galvanic hyperexcitability of the nerves and muscles. (4) In myotonia the facial nerve is not affected. (5) Laryngospasm and chronic and intermittent spasm of the respiration are not seen in myotonia. (6) Myotonia is usually observed during the first weeks of life, while tetany occurs later and is related to rachitis. (7) The contractures of myotonia are independent of season. Tetany is almost exclusively seen in winter and spring. (8) Myotonia is never accompanied with rachitic symptoms, whilst tetany develops on a rachitic base. (9) Contractures of tetany tend to recur, whilst those of myotonia disappear with the cause that provokes them. (10) Treatment with phosphorus, which gives excellent results in tetany, has no effect upon the spasms of myotonia. (11) The sharp contractures of the hands provoked artificially in myotonia almost always take the form of the thumb phenomenon. In tetany, on the other hand, they usually take the form of the hand of the accoucheur. [J. M. S.]

2.—Rabot and Varay report the case of a child, aged 5 months, who had tuberculosis of both lungs with cavity formation. At the autopsy the tracheobronchial lymph-nodes were found enlarged and caseous. There was also tuberculosis of the liver, the spleen, the peritoneum and the meninges. [J. M. S.]

3.—Lebrun reports the case of a girl who fell and struck her head. Although there was no scalp wound, symptoms of cerebral pressure developed and a diagnosis of fracture of the skull was made. Trephining was done. The middle meningeal artery was found ruptured and was ligated, a large extradural blood clot was evacuated, and the child recovered. [J. M. S.]

4.—Desgouttes reports the case of a boy, aged 14 years, who had a tumor in the right side of his neck below the hyoid bone. It was removed and found to be a dermoid cyst. [J. M. S.]

5.—Sevestre contributes a paper on the prophylaxis of diphtheria by preventive injections of serum. He concludes: (1) That preventive injections of serum produce immunity in children who have been exposed to diphtheria. They have never given rise to serious complication. Unfortunately, the period of immunization lasts 3 or 4 weeks at most. In rare cases, in which, in spite of the injection, diphtheria has occurred, the disease has been particularly benign. (2) Immunizing injections are particularly indicated for the protection of children in a family in which one case of diphtheria has already developed. (3) The injections are also indicated in children attending a school or confined in a nursery or a hospital ward in which diphtheria has occurred. (4) Even in the absence of a case of diphtheria, preventive injections are indicated in the children admitted to measles or scarlet fever wards, particularly the former. In such instances the serum ought to be given in large doses and repeated frequently. (5) The practice of preventive injections should not induce neglect of disinfection and isolation. [J. M. S.]

Renal Agenesis.—D'Halluin (*Journal des Sciences Médicales de Lille*, September 6, 1902) has written an interesting article upon absence of the kidney. Two conditions have been found, the presence of one kidney due to fusion of the 2 kidneys; or the presence of but one kidney, the other having failed to develop, agenesis. The latter condition is less frequent than the former. In the latter the kidney may be single, because the other kidney has disappeared, leaving traces of the ureter, etc.; there may be renal pseudo-unity, the fused kidney having a unilateral position, but with 2 ureters; or the presence of but one kidney may be due to agenesis of the other. If 2 ureters are found, the single kidney is probably the result of fusion of both kidneys, but if other abnormalities are noted in the genital organs, the condition is surely renal agenesis. D'Halluin reports such a condition in a dog killed after vivisection. Unilateral renal agencies have been found in well subjects, with or without complication.

[M. O.]

Health Reports.

Health Reports: The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General, U. S. Public Health and Marine-Hospital Service, during the week ending December 20, 1902:

SMALLPOX—United States.

C. D.

CALIFORNIA:	Sacramento.. . . .	Nov. 29-Dec. 6	.3
	San Francisco. . . .	Nov. 30-Dec. 7	.3
COLORADO:	Denver.	Dec. 6-13. . . .	9
FLORIDA:	Jacksonville.. . . .	Dec. 6-13. . . .	1
GEORGIA:	Atlanta.	Dec. 3-10. . . .	2
ILLINOIS:	Belleville.	Dec. 6-13. . . .	1
	Chicago.	Dec. 6-13. . . .	4
	Frecport.	Nov. 29-Dec. 13	3
INDIANA:	Indianapolis.	Dec. 6-13. . . .	22
MAINE:	Biddeford.	Dec. 6-13. . . .	4
	Portland.	Dec. 6-13. . . .	1
MASSACHUSETTS:	Boston.	Dec. 6-13. . . .	21
	Chelsea.	Dec. 6-13. . . .	1
	Lawrence.	Dec. 6-13. . . .	2
	Malden.	Dec. 5-13. . . .	1
	Newton.	Dec. 6-13. . . .	1
	Taunton.	Dec. 6-13. . . .	3
MICHIGAN:	Detroit.	Nov. 29-Dec. 13	68
	Grand Rapids. . . .	Dec. 6-13. . . .	9
MISSOURI:	St. Louis.	Nov. 30-Dec. 7	40
NEBRASKA:	Omaha.	Dec. 6-13. . . .	3
NEW HAMPSHIRE:	Nashua.	Dec. 6-13. . . .	20
NEW JERSEY:	Newark.	Dec. 6-13. . . .	1
NEW YORK:	Binghamton.	Dec. 6-13. . . .	1
	Buffalo.	Dec. 6-13. . . .	1
	New York.	Dec. 6-13. . . .	7
OHIO:	Cincinnati.	Dec. 5-12. . . .	2
	Cleveland.	Dec. 6-13. . . .	11
PENNSYLVANIA:	Altoona.	Dec. 6-13. . . .	14
	Erie.	Dec. 6-13. . . .	3
	Johnstown.	Nov. 22-Dec. 13	12
	McKeesport.	Dec. 6-13. . . .	1
	Philadelphia.	Dec. 6-13. . . .	4
	Pittsburg.	Dec. 6-13. . . .	20
UTAH:	Salt Lake City. . . .	Nov. 29-Dec. 13	12
	Three cases im- ported.		
WASHINGTON:	Tacoma.	Nov. 30-Dec. 7	1

SMALLPOX—Foreign.

CANADA:	Quebec.	Dec. 6-13. . . .	1
FRANCE:	Rheims.	Nov. 23-30. . .	1
GREAT BRITAIN:	Bradford.	Nov. 15-29. . .	33
	Dundee.	Nov. 22-29. . .	2
	Manchester.	Nov. 22-29. . .	1
	Sheffield.	Nov. 15-29. . .	9
INDIA:	Bombay.	Nov. 11-18. . .	1
ITALY:	Naples.	Nov. 24-Dec. 1	2
	Palermo.	Nov. 15-22. . .	3
MEXICO:	Mexico.	Nov. 23-30. . .	1
RUSSIA:	Odessa.	Nov. 15-22. . .	2
	St. Petersburg. . . .	Nov. 15-22. . .	7
STRAITS SETTLEMENTS:	Singapore.	Oct. 25-Nov. 1	2
URUGUAY:	Montevideo.	Oct. 23-30. . .	11

YELLOW FEVER.

BRAZIL:	Rio de Janeiro. . . .	Nov. 1-8. . . .	4
COLOMBIA:	Panama.	Dec. 1-8. . . .	5
COSTA RICA:	Port Limon.	Nov. 29-Dec. 6	4
MEXICO:	Tampico.	Nov. 30-Dec. 7	18
	Vera Cruz.	Nov. 29-Dec. 6	12

CHOLERA.

CHINA:	Hongkong.	Oct. 18-25. . .	1
EGYPT:	Alexandria.	Nov. 8-22. . .	39
INDIA:	Calcutta.	Nov. 8-15. . .	24

STRAITS SETTLEMENTS:	Singapore.	Oct. 24-Nov. 1	19
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PLAGUE.

BRAZIL:	Rio de Janeiro. . . .	Nov. 1-8. . . .	5
CHINA:	Hongkong.	Oct. 18-25. . .	1
EGYPT:	Alexandria.	Nov. 8-22. . .	1
INDIA:	Bombay.	Nov. 11-18. . .	134
	Calcutta.	Nov. 8-15. . .	6
	Karachi.	Nov. 9-16. . .	10

STRAITS SETTLEMENTS:	Singapore.	Oct. 25-Nov. 1	1
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Osteo-arthritis Deformans Following a Sprained Knee.—Deshusses reports the case-history of a man of 32, who fell, injuring his left knee. Swelling followed, with hemarthrosis, which was treated by puncture, aspiration and compression. Pain persisted in the knee, and in 18 months the deformity of the knee was marked. The knee joint was resected for the osteo-arthritis deformans, with excellent operative result. The diagnosis was not difficult. Nothing in the treatment was effective until resection was performed. (*Journal des Sciences Médicales de Lille*, October 4, 1902.) [M. O.]

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Department for Co-operation and Original Research.

In Charge of JOSEPH SAILER, M.D., and JOHN H. GIBBON, M.D.

THE RECENT LITERATURE UPON MENTAL DISEASE.

By WILLIAM PICKETT, M. D.,
of Philadelphia.

Examiner of the Insane at the Philadelphia Hospital.

Among the questions of the hour in mental medicine are: The etiology of paresis, with regard to which the profession is by no means content to rest in the teaching that syphilis is the sole factor; the relations of hysteria to insanity and particularly to katatonia; the etiology and character of the mental disturbance arising in the puerperium; the protean problems of degeneration; the functions of the prefrontal lobes and the respective shares in psychic processes to be assigned to the various regions of the brain.

Etiology of Paresis.—Hoppe (1), among 501 paretics, found syphilis to be the sole cause of the disease in 5.2%, alcohol in 3.8%; heredity in 9.2%. It would be idle to controvert singly the overwhelming testimony of the profession that syphilis precedes paresis in 70% or more of all cases. What Hoppe wishes to emphasize is that multiple factors are at work in the causation of paresis. Such a view as this, by reducing syphilis to an etiological level with alcoholism and hereditary degeneration, would place us nearer to the position held generally by alienists before Fournier's pronouncement (1878) of the syphilitic origin of paresis. The role of alcohol has been emphasized by Pickett (2), who found it prominent in 45.6% of his Philadelphia Hospital series. Naেকে (3), who may be regarded as an apostle of the degeneration-doctrine as related to paresis, having in 1897 declared that hereditary degeneration is present in at least 50% of paretics, has recently been making a comparative study of anomalies of internal structure in a large number of subjects and reports that such conditions as double lung-apex, horseshoe kidney, etc., are about twice as common in paretics as in normal individuals. But we discern a wholesome skepticism among writers as to the true significance of various stigmata of degeneration. Meyer (4) remarks that no two authorities will agree as to what constitutes a stigma of degeneration or as to the relative importance of various stigmata. A widespread impression exists among asylum-men that paretics generally have been "always queer," or their family stock somewhat vitiated, but such impressions are vain without close and laborious anatomical study. Another German, Raেকে (5), found "neuropathic tendency," which may be regarded as practically equivalent to "degeneration or to "hereditary degeneration" in 31.8% of cases of paresis. Incidentally one of Raেকে's statements is of interest, because it controverts an old teaching which was doubtless faulty, and which was, that the reflexes in paresis are increased early, become diminished or absent later in the course of the disease. Raেকে says that loss of knee-jerk supervened in only two cases after primary exaggeration of them.

Hysteria and Insanity.—F. S. Pearce (6) has published

some remarks on those phases of mental disturbance which seem to consist in a development of the emotional element of hysteria without the ordinary stigmata; that is, the psychic part of hysteria without its physical or objective symptoms. This hysterical insanity, Pearce says, is most often confounded with hebephrenia; and he mentions a few of the ordinary symptoms of the latter disease as the differential points. However, the problem lies deeper than Pearce indicates, and on the psychiatric side it concerns rather another form of dementia praecox; namely, katatonia as recognized by Kaiser (7) who writes extensively on the problem of distinguishing grave hysteria from katatonia. Kaiser says that in true katatonia many hysterical stigmata may be present ("psychogenic" manifestations), just as in hysteria katatonic symptoms may occur; and sometimes the difficulty is so great that we must rely upon the "general picture" of the case to arrive at an opinion.

This has called forth a paper from Nissl (8), who is inclined toward the diagnosis of katatonia rather than of hysteria in doubtful cases. Most asylum-men will agree with Nissl here, for the diagnosis "hysteria" is certainly abused by many practitioners, who append it to cases of insanity of every variety. The question is of vital moment in prognosis; but that it is difficult may be seen in the fact that so expert a neurologist as Spiller rather favored the diagnosis of hysteria in a certain case at the Philadelphia Hospital, which by its later course proved to be katatonia. In truth we have made little advance in this subject since Schüle (1880) divided katatonics into three groups, of which one was made up of hysterics.

Puerperal Insanity.—The attitude of most English alienists towards the so-called symptomatic insanities and epochal insanities presents a paradox when compared with the attitude of the Germans toward the same subjects. It might be supposed that the fine clinical observation which led Clouston years ago to discuss the peculiar features of phthisical insanity and to become its chief exponent (though he did not, as is sometimes stated, originate the conception) would at the same time have made it impossible for him to consider the heterogeneous insanities of adolescence as constituting one form with a favorable general prognosis in 70 to 80 per cent., or to consider the insanities of the puerperium as an entity with a general prognosis.

Robert Jones (9), writes as a disciple of Clouston, and he finds the insanity which "arises at parturition and immediately after" to be "almost a distinct nosological entity." He says that the cases may be divided about equally between melancholia and mania; that their prognosis is favorable in about 73%, and that the liability to this insanity is nearly 4 times as great in a single woman as in one who is married. This paper of Jones' is painstaking and full of useful data; but the one thing needful is not supplied; namely, the means of determining beforehand which of our cases are likely to recover, which are to be relegated to that unhappy 27% who (less the small number that die) pass into permanent dementia. To supply this prognosis means we must turn to a German writer. E. Meyer (4), who, among 1104 insane women studied in the course of 6½

years, found 51 cases beginning in the puerperal and lactation periods, which he does not attempt to separate with respect to their mental affections. This reminds us of the proposition made by the well-known British authority, Campbell Clark, that the puerperium for the purposes of the alienist be extended to 2 or 3 months. Meyer classifies his 51 puerperal cases as follows:

Melancholia	11 cases.
Periodical melancholia	4 "
Circular insanity	5 "
Acute confusion	9 "
Hysteria	1 case.
Katatonía	14 cases.
Hebephrenia	2 "
Epilepsy	2 "

The advantage of this classification over that of Robert Jones is at once apparent. The hebephrenics and at least 10 of the katatonics have become demented; and to have made the diagnosis in these cases was to have narrowed their prognosis and widened it in the cases of true confusion and melancholia-mania. Meyer concludes that there is no special puerperal psychosis nor any specific puerperal coloring in the insanities of this period.

The question of puerperal insanity seems so important to the reviewer that he has, under the advice of D. E. Hughes, tabulated 25 consecutive cases treated at the Philadelphia Hospital and obtained the following groups:

Delirium	2	
Confusion	7	
Stupor	2	
	—	11
Mania	3	
Melancholia	1	
	—	4
Katatonía	4	
Hebephrenia	1	
	—5	Dementia
		Praecox.
Paranoia	2	
Paresis	2	
Epileptic insanity	1	

This table supports the teaching of Dercum (10) that the peculiar insanities of the puerperium belong to the delirium-confusion-stupor group. To the puberty-insanities (Heb.-Kat.) the puerperium has the relation of an exciting cause only, each case pursuing subsequently the course peculiar to its type.

The fallacy of resting in the diagnosis of mania and melancholia is carried to an extreme by Haslett (11) in his assertion that "the majority of cases which come to the general practitioner will probably prove to be suffering from mania or melancholia, because nearly all the forms of chronic insanity begin with one or the other of these conditions." What Haslett apparently means is that depression or excitement marks the course of most insanities at a more or less early period; and such an observation has its didactic uses just as Kellogg's (12) emphasis of the common stages of acute mental diseases generally, is useful to the student who on approaching the study of insanity is likely to be confused by the infinite variety of its manifestations, in which, notwithstanding, there are those common features which enable us to understand how the German, Zeller, in the first half of the last century, could declare that there is but one kind of insanity, having a course in 4 stages: Melancholia, rage, delusion and dementia.

Higher Psychic Functions.—Phelps (13) reaches some notable conclusions regarding the functions of the prefrontal lobes, or rather of the left prefrontal region, laceration of which, according to his analysis, "occasions direct loss or derangement of intellectual functions," while similar injuries of the right prefrontal lobe cause no mental symptoms. He was able, furthermore, to draw a distinction between the functions of the surface (cortex) and those of the deeper portions (subcortex) of the prefrontal lobes; for in cortical laceration there were simply perverted memory, lack of attention and control, incoherence, delusions and confusional stupor, whereas in "subcortical excavations

and disintegrations, abrogation of mental power rather than aberration in its manifestations" were observed, the patient's condition being "sluggish and apathetic."

Phelps states this in the form of a law: The deeper the laceration (or other lesion we presume) the more mental default preponderates over mental aberration.

In the light of present-day knowledge of association-systems such distinctions are conceivably true and we may look for important contributions to the knowledge of psychic localization in future from the closer study of the mental manifestations of other brain-lesions such as tumors in relation to various regions of the brain (Charles K. Mills).

Study of the paretic brain with regard to the exact distribution of the meningo-encephalitis and resultant "sclerosis" of brain substance lies in the same field and has been taken up by one of Flechsig's pupils, Schaffer (14). Paresis would seem *a priori* to be an ideal disease in which to investigate this question, for in it we have meningo-encephalitis, leading in one case to wild excitement and boundless delusions (classic form), in another case to a melancholiac-syndrome (depressed form), in still others to simple mental loss (demented or simple form). It has been recognized since the days of Bayle that the frontal lobes are the principal seat of the meningo-encephalitis in paresis of the classic form; but applying to this disease the principles deduced by Phelps from traumatic brain-lesions we might expect to find in the simple demented form of paresis a relatively slighter involvement of the prefrontal cortex than usual; and such was found by Schaffer to be the case in two instances of what he calls "atypical paresis," which means, from his description, the simple or demented form. He found degeneration pronounced in areas corresponding to Flechsig's association-centers—namely, the parietal, post-central, insular, second and third temporal convolutions and gyrus fornicatus more than in the frontal region. This idea of a *selective* degeneration in paresis, rather than a diffuse one, is in unison with Storch's earlier findings, but not with those of Elmiger (15), who, using Weigert's neuroglia-stain, found only a general preponderance of gliosis anterior to the central fissure.

That the prefrontal lobes are the seat of higher psychic functions is supported by McDonald's (16) study of the brains of 40 imbeciles at the Dorchester Asylum, 12 showing special arrest of development of these lobes, and only 2, smallness of the occipital lobes.

That, however, independent of mere intellectual entirety, there may be moral defects in human beings, justifying the old conception of "moral imbecility," is concluded by Still (17) in the Goulstonian Lectures and is accepted by Barr (18) of the Elwyn Institution in his useful didactic lecture on the training of defectives, the chief lesson of which is that all such children should be treated in institutions, it being a mistaken affection which prompts a mother to keep such an unfortunate in her home.

LITERATURE.

1. Hoppe. Allgem. Zeitschr. für Psych. und psych. Med., Januar, 1902.
2. William Pickett. Phila. Med. Journal, March 29, 1902.
3. Naecke. Allgem. Zeitschr. f. Psych. und psych. Med., Jan'y, 1902.
4. E. Meyer. Berlin. klin. Woch., Aug. 5, 1901.
5. Raecke. Arch. f. Psychiatrie, XXXV, Heft 2.
6. F. S. Pearce. Journ. of Nerv. and Ment. Disease, March, 1902.
7. O. Kaiser. Allg. Zeit. f. Psych. und psych. Med., January, 1902.
8. Nissl. Cent. f. Nervenheilk. und Psych., January, 1902.
9. Robert Jones. Lancet, March 8, 15, 1902.
10. F. X. Dercum. Journ. Nerv. and Ment. Disease, September, 1901.
11. W. J. Hanfeld Haslett. Lancet, Dec. 28, 1901.
12. J. H. Kellogg. Journ. Nerv. and Ment. Disease, November, 1901.
13. Phelps. Am. Journ. Med. Sciences, April, 1902.
14. Karl Schaffer. Neurol. Centralbl., Jan'y 16, 1902.
15. J. Elmiger. Arch. f. Psych., 1901, No. 1.
16. P. W. McDonald. Journ. of Ment. Science, Jan'y, 1902.
17. George F. Still. Lancet, April 12, 1902.
18. Martin W. Barr. Phila. Med. Journal, March 1, 1902.

SUMMARY OF CARDIOVASCULAR DISEASES.

(Continued.)

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Diseases of the Endocardium. In a recent article Herrick [1] presents an admirable review of endocarditis. Etiologically it may be caused by a large number of bacteria and may be dependent upon any suppurative areas elsewhere in the body. While the classification into the benign and malignant type is a loose one, both in an anatomical and a clinical sense, Herrick is of the opinion that it should be retained, since we cannot recognize any specific organism causing the condition. The prognosis is favorable to the benign form and even more rarely in the severe ulcerative type. He deals at length with the differential diagnosis of ulcerative endocarditis especially between that condition and malaria, enteric fever and tuberculosis. Repeated examinations of the lungs, sputum, blood and heart would be required. He makes the important observation, which should be constantly borne in mind, that the primary disease may overshadow the condition of the heart. A. O. J. Kelly [2] mentions the diagnostic importance of leukocytosis, of the results of bacterial examinations of the blood and of a peculiar arrhythmia or instability of the heart. The leukocytosis found usually reveals a relative increase in the polymorphonuclear neutrophils. Lenhartz (3), from a study of 38 cases, believes that all forms of septic endocarditis fall naturally into 2 groups. The first, in which the lesion is merely one of the many manifestations of the septic process; and the second, in which it dominates the whole course of the disease. Of his 38 cases of the latter type, 4 improved, one is still under treatment and the remaining 33 died. The majority of cases occurred in early adult life and were equally divided between men and women. The mitral valve was involved in 18 cases; the aortic in 11; the tricuspid in 4; the pulmonary in 2; in 2 cases there were aortic and mitral lesions; and in the other cases aortic and tricuspid lesions. In 28 of the cases careful bacteriological examination was made and the staphylococcus aureus was found 4 times, the albus once and the lanceolatus 3 times, the streptococcus twice and the gonococcus once. In addition, in all cases in which these organisms had been found in the blood during life, they were found also in the body after death. He calls attention to the fact that the streptococcus parvus, particularly of a small character, is found more frequently than the ordinary form. Lenhartz does not believe with Litten that this organism is the cause of malignant rheumatic endocarditis, because it is not found in rheumatic exudates, and it would certainly be recognized were it a casual factor in productive rheumatism. In his series of cases, chills, which are regarded by many as characteristic symptoms, did not always occur. Whitehead and Syers [4] report a case of ulcerative endocarditis with recovery in a patient, aged 35, who complained of earache, and then suffered from an attack of shivering, and at the same time it was noticed that his urine was dark and thick. The temperature was 103°, and a distinct systolic murmur was heard over the aortic area. A week later rigors set in and the temperature presented the characteristic features of septicemia. During the attack the patient had parotid inflammation, pleural effusion and pleuropericardial friction. A Josefson [5] reports the case of a man, 24 years of age, who was brought to the hospital moribund with staphylococcus septicemia. Certain symptoms indicated ulcerative endocarditis and a mitral defect. At the autopsy an opening, 5 by 3.5 cm. in size, was found in the septum between the 2 sides of the heart. The diameter of the lumen of the pulmonary artery was normal. The defect was evidently congenital. The rear mitral valve flap was slit; Rokitsansky noticed a similar slit in 5 out of 24 cases of a defect in the septum. The wall of the right ventricle was remark-

ably thick, but otherwise normal. He had no rheumatic or infectious antecedents and the family was healthy. He had never exhibited cyanosis and no one had suspected any heart trouble, although he complained occasionally of shortness of breath. Josefson had been able to find only 6 cases in the literature of pure septum defect, and in all of these there were some alterations in the pulmonary artery. All were men between 32 and 45. In the rare cases of direct communication between the aorta and the pulmonary artery the patients all die young. Huchard and Bergouignan [6] report a case of endocarditis in a man of 26, who had suffered from syphilis, malaria and rheumatism. He died after edema and swelling of the left leg and foot had occurred. The autopsy showed vegetative endocarditis of the mitral valve, ulcerative aortitis and a small aneurysm of the abdominal aorta close to its bifurcation.

REFERENCES.

1. James B. Herrick in the Northwestern Lancet, March 15, 1902.
2. A. O. J. Kelly in the Univ. of Penna. Medical Bulletin, January, 1902.
3. Lenhartz in Münch. med. Wochenschrift, July 9, 1901.
4. Whitehead and Syers in British Medical Journal, November 2, 1901.
5. A. Josefson in Nordiskt Med. Arkiv., Oktober 26, 1901.
6. Huchard and Bergouignan in Journal des Praticiens, January 4, 1902.

Diseases of the Myocardium.—The measurements of the normal heart which Karfunkel (1) gives, as a result of his studies with the X-rays, are as follows: Greatest lateral diameter, 11 to 12 cm., in very large men as much as 13 cm. Length, 9 to 12 cm., smaller lateral diameter, 8 to 10 cm. Greatest diagonal distance of the border of the right auricle from the sternum, 2½ to at most 4½ cm. The measurements which he attained with the normal and pathologic heart corresponded well with those obtained at autopsy, and he believes that one may determine the true borders of the heart with absolute exactness by means of the X-ray, and the same statement applies to the examination of the great vessel-trunks. One of the last articles from the pen of the late Prof. Potain (2) was a comparison of the methods of outlining the heart by percussion and radiography. He recommends outlining the heart by percussion by making strokes from the periphery and converging towards the organ and distinctly advises against beginning the percussion-strokes over the heart and extending them outward. In general, he has found that he outline obtained by both methods corresponds exactly and the X-rays present no manifest advantages. He sounds a note of warning against neglecting the tried methods of physical diagnosis in this era of X-ray employment. E. Reichmann (3) supplements the ordinary methods of percussion and auscultation by using a round stick about 7 cm. long and 1 cm. in diameter. The top is flat, the lower end rounded, the space between is cut like a screw thread, only the grooves are circulated, horizontal and parallel, instead of spiral. The rounded end is placed on the skin and the forefinger applied to the top holds it firmly pressed against the skin. The fingers of the other hand, not the nails, are rubbed up and down over the groove while listening through the stethoscope. The sound of the rubbing is very distinct and becomes muffled as it is applied over the edge of some internal organ which can thus be clearly outlined. Edes (4) describes the physiological action of the heart and shows that the line between the healthy acting and inefficiently acting organ cannot be drawn sharply, but has a varying margin which can only be told with precision by experiment, which may be dangerous. It is only by the increase of muscle-power and in regulating it so that it can be economically used that the best results are to be obtained. L. F. Bishop (5) discusses the relative importance of disease of the heart muscle and the heart valves. He emphasizes the importance of recognizing the beginning disease of the heart muscle, detected by the slight alterations of rhythm and small variations of force of the heart-beat. The size of the heart, determined by careful examination and induction, is of great significance as compared with the blowing systolic murmur which is heard. Certain forms of dilatation of the heart involve dilatation of the

crifices, which allows a separation of the valve segments, producing murmurs which are very loud. It is now generally accepted that the important consideration in determining the prognosis is the integrity of the heart muscle and that when the muscle is healthy, a moderate degree of leakage need not cause anxiety. Alexander Morison (6) states that there are differences in cardiac adequacy on the part of one heart as compared to another and relates 2 cases which also illustrates the influence of diminished bulk of the heart and disproportionate smallness of the organ compared to the size of the body. C. A. Ewald (7) reports a case of a long standing cardiac defect in the stage of compensation which suddenly developed myocarditis. This morbid process disappeared after 2 years without producing any essential injury to the heart muscle. Recovery was rapid after it had begun subsequent to 9 months of serious inadequacy and was complete except for the previously existing cardiac defect. Zuppinger (8) reports 3 cases of certain death from heart failure in children with some superficial ulceration. The cases are interesting and the clinical findings somewhat remarkable. The first patient, a boy of 3 years, had an infected wound of the foot, received a week before. He refused nourishment and rapidly lost strength. The wound healed. The heart dulness increased, quantities of albumin appeared in the urine, edema developed with ascites and hydrothorax and he died just 21 days after the wound was received. The autopsy showed hypertrophy of the heart with acute myocarditis and nephritis, induration of the liver and spleen, bilateral hydrothorax and ascites. No bacteria were found. The second patient, a boy of 14 months, who had been burned in the inguinal region, died suddenly on the eleventh day in a convulsion which lasted hardly a minute. The autopsy showed acute myocarditis and nephritis. The third patient, a boy of 3, had eczema for many months followed by abscess of the cervical lymph-glands. He died suddenly the day after the abscesses had been opened. Similar pathological findings were obtained. In these cases the nephritis showed the severity of the intoxication which must have been due to infection from the open wound. In none of the cases were there symptoms of sepsis, nor were organisms found. Zuppinger therefore concludes that it is possible for death to occur from acute myocarditis due to an especial susceptibility of the heart early in childhood. Boardman Reed (9), discussing the hygienic and mechanical treatment of heart disease, states that cardiac disease is often due to auto-intoxication, especially to poisoning by the alloxyuric bases. The cure or amelioration in such cases requires at first, in addition to an appropriate diet, not too nitrogenous, the utmost practical rest of the crippled organ. This cardiac rest may be further promoted by very gentle exercises which dilate the capillaries without taxing the heart. The Nauheim method of treatment spares the heart by dilating the too contracted arterioles in 2 ways: (a) By stimulating the peripheral circulation through carbonated saline baths; and (b) by massage and forms of exercise so mild as not to quicken the pulse. W. H. Broadbent (10) in an authoritative article on renal disease and the circulation, discusses arterial pressure and the changes which occur in the vessels and the heart. One of the early indications of the latter is the reduplication of the first sound, best heard to the inner side of the apex, denoting a failure of synchronism between the 2 ventricles in their systole. J. L. Moore (11), from a study of 32 cases of congenital heart disease, states that in a considerable number of cases the cardiac lesion was discovered during a routine physical examination, there having been no symptoms referable to the heart. The length of time which the condition may exist without the development of any symptoms may be as great as 3 or 4 years. In the cases presenting patent *foramen ovale* the symptoms were comparatively mild. An interesting feature was noted in the recovery from lesions, that from physical examination were apparently the same as those in the series that resulted in chronic invalidism or death. H. Eichhorst (12) reports

an autopsy in which the heart is described as "frosted." The patient was a woman of 40 years, who had suffered from typhoid fever at 20 and a slight attack of acute articular rheumatism 5 years before. She was suddenly seized with symptoms of myocardial insufficiency which would subside under treatment only to recur again in a few days and which ended fatally in 6 months. The peculiar fibrous thickening was limited to the epicardium, while the heart muscle itself was apparently normal. The fibrous condition of the epicardium must have interfered with the movements of the heart muscle both in systole and diastole. H. D. Everington (13) reports an interesting case of a married woman, of 36 years, with an acute articular rheumatism. During the attack there was an extremely rapid heart action, the beats ranging between 220 and 240 per minute. There was no evidence of organic disease or of dilatation. If the patient took several deep breaths, the rate would drop nearly 100 per minute. A number of cases are recorded of the effect of deep inspirations on tachycardia, but no satisfactory explanation of this fact has been offered. Raymond Crawford (14) believes that it is most doubtful whether the heart muscle is ever affected primarily by tuberculosis. Nearly all the cases are secondary to tuberculosis of the thoracic organs. Adherent pericardium is almost constant, but tuberculosis of the myocardium may exist without any affection of pericardium or endocardium. In a very large proportion of cases the mediastinal and tracheobronchial glands and the lung have been extensively and obviously tuberculous. The usual mode of propagation to the heart muscle is by direct extension, but in other instances perfectly healthy heart muscle intervenes between the adherent pericardium and the tuberculous deposit. The infection of the myocardium may be due to carriage by the blood or by the lymphstream. The anterior and upper aspect of the right auricle is the part of the organ most frequently involved in the process. Tuberculosis of the heart muscle may take the form of the large tubercle, the miliary tubercle or tuberculous myocarditis. Arthur Stanley (15) has studied the action of the beri beri poison on the heart. He concludes that it has a marked degenerative action on the heart muscle which frequently causes fatal circulatory failure. In this respect beri beri resembles other toxic diseases, such as diphtheria, influenza, the effects of alcohol and arsenic poisoning, and also other toxic diseases, such as typhoid fever, plague and acute rheumatism which do not, or very rarely, give rise to peripheral neuritis. Beri-beri and diphtheria are the diseases *par excellence* in which sudden heart failure occurs. The degeneration of the heart muscle is not a secondary result of the neuritis of the vagus. It takes place, as a rule, before skeletal muscle degeneration and is the result probably of a direct action of the toxin, and not a secondary result of nerve change. Sudden heart failure does not indicate a sudden lesion, but rather is the result of a gradually increasing heart weakness from cardiac muscle degeneration which may be precipitated by any sudden exertion. H. L. Nietert (16) has reported 2 cases of surgery of the heart and has recently collected from the literature 27 cases of penetrating wounds of the heart. He concludes from his observations in the suturing of heart wounds that gentle manipulation may be applied without producing shock. The introduction of the suture produces but a slight irregularity in the heart's action. Wounds of the heart heal rapidly. Intrapericardial pressure is increased even if the hemorrhage occurs during diastole alone. He describes an extra-intrapleural route and states that if the wound does not involve the pleura the latter route should be employed. It is his opinion that all heart wounds in which there is danger of fatal hemorrhage should be sutured.

REFERENCES.

1. Karfunkel. Zeitschrift fuer klinische Medicin, Band 46, Hefte No. 1, 3, 4.
2. Prof. Potain. La Semaine Medicale, December 18, 1901.
3. E. Reichmann. Deutsche med. Wochenschrift, November 14, 1901.

4. Edes. Boston Medical and Surgical Journal, September 26, 1901.
5. L. F. Bishop. Pediatrics, December 15, 1901.
6. Alexander Morison. The Lancet, April 19, 1902.
7. C. A. Ewald. Berliner klinische Wochenschrift, October 21, 1901.
8. Zuppinger. Wiener klinische Wochenschrift, August 22, 1901.
9. Boardman Reed. American Medicine, September 28, 1901.
10. W. H. Broadbent. The Practitioner, November, 1901.
11. J. L. Moore. Archives of Pediatrics, October, 1901.
12. H. Eichhorst. Deutsche med. Wochenschrift, April 17, 1902.
13. H. D. Everington. The Lancet, May 10, 1902.
14. Raymond Crawford. Edinburgh Medical Journal, September, 1901.
15. Arthur Stanley. Journal of Tropical Medicine, November 1, 1901.
16. H. L. Nietert. Phila. Medical Journal, December 14, 1901, and May 3, 1902.

RECENT LITERATURE UPON DISEASES OF THE ESOPHAGUS.

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The interest in diseases of the esophagus has been considerably stimulated of late by the publication of the magnificent monograph of Kraus in Nothnagel's System. This is probably the most thorough exposition of the diseases of the esophagus that has ever been published, and contains a wealth of statistical information that will prove of the greatest service to all interested in this subject. Diseases of the esophagus have, however, been attracting more and more attention from clinicians of late years, and it is beginning to be recognized how frequently affections of this organ, other than those produced by stricture, have hitherto been overlooked.

Acute esophagitis is not nearly so uncommon as has been supposed. Simmons (1) exhibited before the Medical society of Hamburg 3 specimens of acute inflammation of the esophagus following scarlatina. The process was severe, causing necrosis and ulceration of the mucous membrane, and bacteriological examination showed that the infection was due to the streptococcus pyogenes. As the organisms were found abundantly on the surface, and very rarely in the deeper layers, there is reason to believe that the infection was secondary to that of the throat, which, in all these cases, also showed necrotic areas, particularly in the tonsils. However, he exhibited a fourth case in which thickening and necrosis of the mucous membrane had occurred in a marasmic child, whose throat was entirely normal. In this case, unfortunately, blood cultures were not made, and it was impossible to determine the nature of the infection. Fraenkel (2) reports three cases of necrosis of the esophagus following scarlet fever, in which the infection was due to the staphylococcus pyogenes, the invasion commencing at the surface and extending inward. It is interesting to note that none of these cases was diagnosed during life, and characteristic symptoms appear to have been absent.

The nature of diverticula of the esophagus is still unsettled. Ribbert (3) has recently contended that the great majority of them is due to disturbance of development, that is to say, there is defect in the muscular coat at the point at which the diverticulum arises. Inflammatory processes do occur and are probably secondary. Starck (4) mentions an interesting case occurring in a woman, 43 years of age, who, when a young girl, had suffered from enlarged glands in the neck and from chlorosis. For an entire winter she had cough without expectoration, pain in the back between the shoulderblades, that gradually grew worse, and finally dyspnea and palpitation. The breath became fetid and she developed fever. There were signs of consolidation on the right side, and a pleural puncture gave a clear serous fluid. Later a tympanic area was found in the anterior axillary line which extended to the back, and a second puncture in the tympanic area gave an extremely offensive gas. The patient died, and at the autopsy an abscess was found in the right lung that connected with the right bronchus. A traction diverticulum was found 1.5 cm. below the bifurcation of

the trachea, that connected with the abscess cavity in the lung and had evidently caused it.

The subject of the treatment of carcinoma of the esophagus has lately received more attention than the pathology or symptomatology. Turner (5) has reported 2 cases of women past middle life, who developed squamous cell carcinoma in the upper end of the esophagus. Both had a pronounced cancerous heredity. In the first case the stricture was of remarkably long course, having been diagnosed 3½ years before final operation. In the other the symptoms developed more rapidly. Strauss (9) reports an interesting case of dilatation of the esophagus, due to carcinoma, in which perforation into the right bronchus occurred, giving rise to gangrene of the lungs. This was detected by inserting a tube a short way into the esophagus and holding a candle before its open end. When the patient expired forcibly the candle was extinguished. Minkowski (6) exhibited, before the Medical Society of Cologne, a most extraordinary specimen of a dissecting aneurysm of the esophagus which had been produced by the rupture of a small aneurysm in the arch of the aorta between the layers of the esophageal wall. The patient, a woman of 60 years, had several attacks of hemorrhage from the stomach, and, finally, a massive hemorrhage as a result of which she died. A small ulcer was found in the stomach, communicating with the aneurysmal cavity.

The functional disorders of the esophagus are becoming better and better known. We are gradually accumulating data which some day may enable us to recognize with certainty functional insufficiency of the cardia. The opposite condition which may give rise to dilatation of the esophagus, or those conditions in which the esophagus is apparently dilated without a distinct etiological factor, are now quite frequently recognized by specialists. Czygan (7) reports the case of a man, 47 years of age, without neuropathic heredity, who, at the age of 21, had numerous attacks of intense pain in the stomach. Later he commenced to vomit immediately after eating, then the food seemed to stick in his throat and he was obliged to go through various manoeuvres in order to force it into the stomach. He rapidly lost weight, and, at the age of 31, was obliged to stop work, remaining idle for ten years. On one occasion he awoke in the morning with gastric tympany, and had a sensation as if a ball passed up the gastro-intestinal tract, causing intense pain. There was slight descent of the greater curvature of the stomach. The introduction of the gastric sound was easy; it was possible to fill the stomach and the esophagus independently, with water, and the latter could contain an abnormal quantity. A diagnosis of spindleform dilatation of the esophagus was made and confirmed by X-ray examination. The stomach contents showed marked diminution in acidity. The patient improved considerably as a result of feeding through the stomach-tube, lavage of the stomach and esophagus, and the employment of liquid and semi-liquid food. Einhorn (8) has observed 10 cases of idiopathic dilatation of the esophagus in the course of 5 years. He recognizes 3 causes: Paralysis or atony, spasm of the cardia and absence of reflex relaxation of the cardia during swallowing. The last seems to be the most common cause. The symptoms are dysphagia, which may be considerable or slight, a sense of oppression or fullness in the breast which may give rise to dyspnea, a sense of suffocation, especially during eating, obstinate cough, coming on at night and causing disturbance of sleep, vomiting or regurgitation of the contents of the esophagus after eating; the appetite usually remains good, and the bowels are regular. The swallowing sound is not audible. If a sound is introduced for 30 or 35 cm., the esophageal contents can be withdrawn; they consist of undigested food, neutral or slightly alkaline in reaction. The coffee-test shows the presence of 2 cavities, the esophagus and the stomach. It consists of giving the patient a cup of black coffee. Three-quarters of an hour later the patient swallows 250 cc. of water, and five minutes later a sound inserted to a distance of 35 cm. brings clear water, one inserted 60 cm. brings coffee. The diagnosis is greatly aided by the use of the esophageal sound. Malignant tumors never give rise to dilatation unless there is stricture, and diverticulum can be excluded if the bougie readily enters the stomach. Moreover, a diverticulum never contains more than 50 cc.

of fluid. The prognosis is good for life, bad for recovery. Treatment consists of a diet of fluid, semifluid and solid food and lavage of the esophagus. Electricity and feeding through the stomach-tube are of little value. Strauss (9) reports a case of idiopathic dilatation of the esophagus occurring in a man, 30 years of age. The disease commenced in childhood and the symptoms had steadily progressed. The first swallowing sound was present, the second was absent. A sound was readily introduced into the stomach if the esophagus had been previously inflated with air. The cavity of the esophagus could contain 500 cc. It could not be satisfactorily illuminated with the gastrodiaephane. The patient had difficulty in lying on the back or left side, and could swallow carbonated waters better than others. Examination with the X-rays, after the esophagus had been inflated with air, and 2 sounds introduced, showed the second sound in various parts of the esophageal cavity. The size of the dilated esophagus may be determined by inserting a soft rubber bag connected with 2 tubes; through one tube the bag is inflated and then, as it is withdrawn, the air is forced out through the other tube into an inverted cylinder of water, and the total quantity of air can then be measured. In one case the stomach contents were acid and contained no free HCl. Treatment consists of rectal alimentation, cleansing the esophagus and insufflation with tannin and oils. Displacement of the aorta may give rise to idiopathic dilatation. Strauss (10) describes a specimen of idiopathic dilatation of the esophagus removed from a man, 25 years of age. The symptoms had commenced at the age of 14. The patient afterwards suffered from aepsia gastrica with motor insufficiency, apparently due to adhesions of the pyloric end of the stomach. The esophageal dilatation was spindleform, and the length of the dilated portion was 30 cm. The esophagus was from 12 to 15 cm. longer than normal. The stomach was not dilated. This is one of the most extreme cases of dilatation on record. Strauss believes that the causative factor is disturbance of development. Many of the patients have various forms of functional neuroses, and it is possible that there is a neurogenic cardiac spasm. It is not unlikely that several causes act together. Gastroparesis is often an associated condition. Pressure of the aorta may give rise to dilatation as a result, either of irritation or obstruction; some cases are latent.

The diagnosis of esophageal conditions is not entirely satisfactory. Kelling (11) strongly urges the use of the esophagoscope. He was able to make a positive diagnosis by means of this instrument in 13 cases, in some of which other means of diagnosis had led to incorrect results. In one case a carcinoma was excluded, and in 2 cases, in which simple spasm had been diagnosed, a carcinoma was proved. In a fourth case a syphilitic ulcer was recognized, and in a fifth case a diagnosis of aortic aneurysm was corrected to carcinoma of the esophagus. The instrument is important also for the early recognition of carcinoma, for in one case he was able to recognize this condition 4 weeks after the onset of the symptoms.

The treatment of esophageal conditions is still largely surgical. Teleky (12) discusses different methods of operating upon stricture. For gradual dilatation he prefers the conical sound, but all methods are dangerous. The best method is probably gastrostomy with the introduction from the stomach of a guiding thread. He finally reports a series of cases, in which, upon Hebra's advice, he employed injections of thiosinamin, injecting .075 gm. in alcoholic solution daily for 5 days. In all cases the stricture became more permeable for larger sounds. In one case it unfortunately caused relaxation of the gastrostomy scar and death from peritonitis. [In still another case, that of a boy, 3 years of age, who some years before had drunk lye, an extensive carcinoma in the stage of breaking down was found at the site of the gastrostomy scar. This is only the third case on record in which the condition occurred in so young a child.] Taylor (13) believes that, after swallowing caustic substances, it may be desirable to commence sounding the esophagus in from 2 to 4 weeks. He urges the employment of external esophagotomy for strictures in the vicinity of the cricoid cartilage, and the combined internal and external esophagotomy for strictures above the arch of the aorta. Im-

passable strictures should be treated by retrograde dilatation.

Adamkiewicz (14), who some years ago discovered a peculiar toxic substance in carcinoma, which he named cancrin, and who has continued serenely to employ it for the treatment of carcinoma, in spite of the fact that the experiments upon which he based his conclusions, have been shown to be utterly fallacious by a number of competent investigators, reports 4 cases of carcinoma of the esophagus treated by his method, 3 men and one woman, all over 50 years of age, and all suffering from extreme stenosis, dysphagia and cachexia. As a result of injections of cancrin, the symptoms all rapidly disappeared, and the patients made perfect recoveries. In the woman the symptoms had persisted for 3 years. It appears from the researches of Dumontin, that cancrin and neurin are identical.

Lameris (15) reports 17 cases operated upon by Narath for carcinoma of the esophagus. In all of them gastrostomy was performed. Three patients died shortly after the operation; one died 3 weeks and another 3 months afterward. It was known that some of the other patients were alive at various intervals after the operation, and several had reacquired the power of swallowing food. He mentions one remarkable case operated upon in 1894, by von Eiselsburg. The patient had an impermeable stricture of the esophagus and a tumor of the pylorus. At the operation a diagnosis of carcinoma had been made, but 15 months later the tumor of the pylorus had disappeared, and with it all symptoms of stricture. Two years later the jejunal fistula was closed by Professor Narath, and the patient at the time the paper was written (7 years later) was perfectly well. He urges that, in all cases of carcinoma of the esophagus, gastrostomy should be performed, unless fatal complications are present, and he believes that it is possible that, as a result of operation, the patients may be cured of carcinoma.

An ingenious apparatus, that has not yet, however, been employed upon a patient, has been devised by Talma (16). This is an artificial esophagus which is to be inserted into the true esophagus just below the pharynx through a fistula in the lower portion of the neck, and then passed down to be inserted through a fistula into the stomach. The object of the apparatus is to enable the patient to masticate and swallow food in the ordinary way. A mechanical arrangement serves to replace the normal peristalsis of the esophagus. This apparatus can be concealed beneath the clothing, and is certainly a considerable improvement over the tube with a funnelshaped extremity, into which the patient is obliged to expectorate the masticated food.

REFERENCES.

1. Simmons. *Münchener med. Woch.*, April 15, 1902.
2. Fraenkel. *Virchow's Archiv*, Hft. I, 1902.
3. Ribbert. *Virchow's Archiv*, Vol. 167, Hft. 1, 1902.
4. Starck. *Archiv f. Verdauungskrankheiten*, Vol. 7, p. 6.
5. Turner. *Edinburgh Med. Jour.*, Feb., 1902.
6. Minkowski. *Münchener med. Woch.*, April 29, 1902.
7. Czygan. *Archiv f. Verdauungskrankheiten*, Vol. 7, p. 91.
8. Einhorn. *Archiv f. Verdauungskrankheiten*, Vol. 7, p. 356.
9. Straus. *Zeitschr. f. klin. Med.*, Vol. 34, H. 3 and 4.
10. Strauss. *Phila. Med. Jour.*, Jan., 1902, p. 171.
11. Kelling. *Münchener med. Woch.*, Jan. 7, 1902.
12. Teleky. *Wiener klin. Woch.*, 1902, p. 198.
13. Taylor. *New York Med. Jour.*, Feb., 1902.
14. Adamkiewicz. *Presse Médicale*, 1902, No. 7.
15. Lameris. *Weekblad van het Tyds.* No. 1, 1902.
16. Talma. *Berliner klin. Woch.*, Feb. 3, 1902.

DISEASES OF METABOLISM.

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SOME MODERN PHASES OF THE URIC ACID QUESTION.—2. THE FACTORS DETERMINING THE EXCRETION OF URIC ACID AND ITS CONGENERS—(Concluded.)

Whereas, it may be considered definitely determined that a large portion of the uric acid that enters the bloodstream is destroyed in different organs of the body, it is by no means determined that all the uric acid is destroyed in the organism. In studying the factors that determine

the excretion of uric acid, we must therefore consider 2 possibilities, viz.: (1) That the uric acid circulating in the blood is only partially destroyed; (2) that the uric acid circulating in the blood is completely destroyed.

In the former instance, the excretion of uric acid could be readily explained; the urinary uric acid would be nothing more nor less than the portion of the uric acid that escapes destruction. Bearing on this premise the question merely would remain to be answered: How is a certain proportion of the circulating uric acid protected from destruction,

The older authors [Lehmann (1), Bartels (2), von Jaksch (3) and others] believed that the organism destroyed uric acid by oxidation, and that at certain times the amount of uric acid entering the blood (particularly in feeding experiments) became so excessive that the normal oxidative powers were insufficient to destroy it completely, hence a partial excretion of uric acid. All the older authors, moreover, believed that uric acid was an intermediary product in the oxidation of albumin to urea, so that the quotient urea uric acid was to them the index of oxidative activity. In several cases of intoxication with u. c. and in a variety of lesions of the respiratory and circulatory apparatus, all conditions in which the aeration of the blood was interfered with, this quotient was found reduced, and this finding was often adduced in evidence of the old postulate that the excretion of uric acid is dependent on the activity of oxygenation. Only a few years ago so careful an observer as von Jaksch (l. c.) explained the presence of uric acid in anemic blood by assuming reduced oxidation.

Senator (4), Niemeyer and Riess (5), Pettenkofer and Voit (6), Krauss and Chvostek (7) all showed, however, both by experimental and clinical studies, that a pathological increase in the excretion of uric acid is never, probably, due to deficient oxygenation in the ordinary sense. Senator, for instance, produced constriction of the trachea, compressed the thorax, injected oil into lungs and opened the pleural cavity in different animals, and in this way produced severe dyspnea, but never succeeded in determining an increased excretion of uric acid under these conditions. Other investigators bled animals and brought about oxygen hunger by depriving the animals of erythrocytes, but the uric acid excretion was not found increased. It was shown, moreover, that in leukemic cases, in whom the uric acid excretion is frequently very large, oxidation is not really reduced, the same in fact was found to apply to all anemic states.

Personally, I do not consider these counter-arguments altogether valid. Much of the older work was carried out by inexact and crude methods, besides, there are many complex factors at work that must all be considered, I need only refer to the excessive catabolism of leukocytic nuclei in leukemia, that alone could account for a great increase in the uric acid excretion. This matter is not yet settled, and the proposition, that uric acid is normally destroyed by a process akin to oxidation, cannot be altogether negated on the basis of the evidence we possess to date. We are, moreover, not justified in drawing too sweeping conclusions from pathological states in regard to normal processes.

The most plausible explanation of the nondestruction of a portion of the uric acid that circulates in the blood, is the one recently advanced by Lüthje (8). This investigator says: "Uric acid and the purin bases are substances that are intended to be excreted * * * both are products of nuclein catabolism, and both normally occur in the blood * * * as a portion of the blood is at all times circulating through the kidneys, that portion of the uric acid (and purin bases) that is carried to the kidneys at the moment when it is formed, must be excreted." In other words, the uric acid that is normally excreted is that portion that is not destroyed in the tissues, simply because it is excreted almost as soon as it enters the blood. We will revert to this theory below.

The other premise on which we must base our arguments is the assumption that the uric acid circulating free in the blood is completely destroyed. How can we explain the excretion of uric acid on this basis? Here we must briefly discuss the three possible explanations by Hoppe-Seyler (9), Ganod (10) and von Noorden (11) that

we referred to in the closing sentence of our previous article.

Hoppe-Seyler argues as follows: All the uric acid that is formed in the organs of the body, all the uric acid that is absorbed from the intestine or is artificially introduced into the bloodstream, is completely destroyed with the exception of that uric acid that is formed in the kidneys; the latter is excreted as soon as formed.

Hoppe-Seyler, therefore, considers uric acid not to be a *terminal* product, but an *intermediary* product, i. e., one that is normally converted into more highly oxidized products (urea, etc.) He assumes, moreover, that the kidneys normally *form* uric acid, so that, according to this view, the urinary uric acid is not that portion of uric acid that has escaped oxidation, but that portion that is formed in the kidneys.

Unfortunately, Hoppe-Seyler based his views in regard to the formation of uric acid in the kidneys solely on certain experiments that were performed in birds and reptiles [Galvani (12), Zalesky (13)]; these experiments were later shown to be altogether invalid [Meissner (14), Pawlinoff (15), Ebstein (16), Schröder (17)] and it may be considered established that in birds and reptiles the kidneys do *not* form uric acid. This, however, does not impair the value of Hoppe-Seyler's theory, it simply shows that he arrived at probably correct conclusions by drawing wrong analogies. The nitrogen economy in birds and reptiles is so radically different from that of mammals (urea taking the place of uric acid), that we must never attempt to draw analogies between the two in regard to the formation and excretion of uric acid; this is an error that has been frequently committed.

Garrod's arguments are based on the same supposition as Hoppe-Seyler's, for he, too, assumes (partly on the basis of his own experiments (18) that uric acid is completely destroyed in the mammalian organism, and that the kidneys manufacture uric acid. He regards 'the kidneys as the producers or manufacturers of uric acid from matters brought to them from the blood.'

The only difference between Garrod's and Hoppe-Seyler's view is that the former considers the kidneys to be the only organ in which uric acid is formed, whereas the latter believes that uric acid is also formed in other organs. According to Garrod, all the uric acid normally formed is immediately excreted, whereas, according to Hoppe-Seyler, a great portion is at once destroyed, and only a moiety is normally excreted, viz.: that small portion that is formed in the kidneys. According to the one (Garrod), therefore, uric acid is always a terminal product, according to the other, an intermediary product.

Kalisch (19) has recently promulgated a theory that is similar to Garrod's, and that was almost universally accepted for a time. Kalisch showed that in nephritis the excretion of the total urinary purin bodies (i. e., uric acid *plus* purin bases) remains normal, but that the relative proportion of uric acid and purin (alloxuric) bases is disturbed. He showed that the excretion of uric acid is diminished, but that a corresponding increase in the excretion of the purin bases occurs. This fact had been previously indicated by Dickinson (20), Bartels (21) and Fleischer (22), who all found that the excretion of uric acid was reduced in nephritis, and by Baginsky (23), who showed that the urine of children suffering from nephritis contained more purin bases than the urine of healthy children. Baginsky attributed this finding to an increased desquamation of renal epithelia.

Kalisch, basing on a theory advanced by Herbaczewski (24), namely, that both uric acid and purin bases are derived from a common (undefined) mother substance, assumed that the kidneys possessed the power of converting this mother substance into uric acid (by an oxidative mechanism), and that in nephritis this power was impaired and that purin bases were consequently formed instead (by molecular rearrangement.) Croftan (25) found that in gout and in lithemic conditions, generally, the same disproportion exists, and that in this disease the *sum* of the uric acid and the purin bases, i. e., the total purin nitrogen is increased. Many objections have, however, been formulated against this view. The methods employed for the determination of uric acid and the purin bases seem to have been defective.

Stadthagen (26) and von Ackeren (27) showed that the finding of Dickens, Bartels and Stadthagen could not be corroborated if the uric acid was determined according to Ludwig's method, and Zülzer (28) also working with better methods, showed that in nephritis the excretion of uric acid remains approximately normal. Weintraud (29), moreover, showed that feeding thymus or other nuclein, containing articles of food to nephritic cases, was followed by the same increase in the uric acid excretion as in normal subjects. Kam (30) found the same. Huppert (31) finally showed that the methods of Krüger and Wolff, that Kalisch, Croftan and others employed, always give values for the purin nitrogen excretion that are altogether too high, consequently the figures found for the excretion of purin bases are particularly high and wrong in this sense. Ascoli (32) and Martin (33), working with improved methods, could not corroborate Kalisch's findings; in one case of nephritis, it is true, Martin found the excretion of uric acid reduced, and the excretion of the purin bases increased. The hypothesis advanced by Kalisch, and accepted by others, is not necessarily refuted by these results, for the functions of an organ need not be impaired in all directions, even though the organ is diseased; in other words, the kidneys in nephritis may still form uric acid, according to Kalisch, even though their eliminatory function is impaired, just as the liver continues to form urea, even when it is extensively diseased.

Another forcible argument against the kidney-theory, and one that is extensively quoted, is the fact established by Garrod (34), Abeles (35), Petren (36) and Weintraud (37), Croftan (l. c.), that a small quantity of uric acid is normally present in human blood. This finding can only with difficulty be reconciled with the view that uric acid is completely destroyed, and that the uric acid formed in the kidneys is immediately eliminated in the urine.

In many diseases, moreover, uric acid in appreciable quantities is found in the blood. Garrod found as much as 4 mg. per 100 cc. of uric acid in the blood in nephritis; von Jaksch (38) and Klemperer (39) report uric acid as a constant finding in nephritis; Magnus-Levy (40) found large quantities in 12 cases of Bright's disease. In gout, in leukemia, in pneumonia, in the different anemias, etc., uric acid is nearly always present in considerable quantities in the blood. Pickardt (41) found it in many serous exudates, Boucheron (42) in the saliva, nasal mucus, conjunctival fluids in uremia; Colasanti (43) in the vomit of a case of hysterical oliguria, etc.

We can hardly favor the view, therefore, that uric acid is completely destroyed in the tissues, nor that the kidneys play an important role in the formation of uric acid. The chief function of the kidneys seems to be excretory as regards uric acid; whenever this function becomes insufficient, uric acid is retained.

von Noorden's view, finally, is the following: He believes that all the uric acid that is formed within the body (endogenous), is protected against oxidation by entering into compounds that are oxygen-proof. The uric acid, however, that is ingested or is introduced from without, in some other way, is completely destroyed (oxidized). The only uric acid that is excreted is, therefore, the endogenous portion. According to this view, endogenous uric acid is a terminal product that is excreted as soon as formed, whereas all the exogenous uric acid that enters the blood must be considered an intermediary product, destined to be destroyed in the organs of the body and not to be excreted as uric acid.

There is some evidence to show, however, that the endogenous uric acid, too, is at least partially destroyed. Frerichs and Städeler (44), for instance, interfered with normal respiration in dogs, who had been fed on a purin-free diet for over a week. They discovered a great increase in the allantoin excretion. As allantoin is manifestly derived from uric acid (see previous communication), and as no purins were introduced, we are forced to the conclusion that some of the endogenous uric acid was destroyed. Similar results were obtained by Borrisow (45), who observed a great increase in the excretion of allantoin after poisoning, starving dogs with hydrazin sulphate. Poduschka (46) published like results. We see, therefore, that neither the theory of Hoppe-Seyler, Garrod nor von Noorden can explain all the facts satisfactorily. The

whole question calls for further investigation. The conclusions we arrive at, from a critical review of the literature, on destruction and the excretion of uric acid in man, are the following:

The uric acid (both endogenous and exogenous) circulating in the blood is an intermediary product; it is destined to undergo further destruction in different organs of the body.

Whereas, the different organs of the body, and consequently the organism, as a whole, possess very great uric acid destroying powers, a certain proportion of the uric acid escapes destruction, because it is carried to the kidneys in the blood that circulates through these organs, and is therefore eliminated. We may expect to find the excretion of uric acid increased if the quantity of blood circulating through the kidneys is increased. Such fluctuations may, in part, account for fluctuations in the uric acid excretion at different periods in the 24 hours. The average excretion for a consecutive number of days will, however, remain fairly constant in health.

1. Lehrb. d. phys. Chemie, II Ed., p. 199, 1853.
2. Deutsch. Arch. f. klin. Med., Vol. I, p. 13, 1866.
3. Deutsche med. Woch., Vol. 16, p. 741, 1890.
4. Virchow's Archiv, Vol. 42, p. 1.
5. Arch. f. Anat. u. Phys., 1869, p. 381.
6. Zeitschr. f. Biol., Vol. 5, p. 319.
7. Zeitschr. f. klin. Med., Vol. 22, p. 449, 1892.
8. Arch. f. Verdauungskrankheiten, Vol. 2, p. 367, 1896.
9. Phys. Chemie, p. 815, Berlin.
10. British Med. Journal, 1883, I, p. 548.
11. v. Noorden, Lehrb. d. Path. d. Stoffwechsels, p. 52, Berlin, 1893.
12. Du Bois Arch. f. Anat. u. Phys., 1865, p. 408.
13. Unters. über d. uräm. Process, Tübingen, 1865.
14. Zeitschr. f. ration. Med., Vol. 31, p. 148.
15. Virchow's Archiv, Vol. 62, p. 64.
16. Natur u. Beh. d. Gicht, Wiesbaden, 1882.
17. Arch. f. Anat. u. Phys., 1880, Suppl. Bd., p. 113.
18. Brit. Med. Journal, 1883, Vol. I, p. 548.
19. Wien. klin. Woch., Vol. 8, p. 435, 1895.
20. Dis. of the Kidneys, London, 1875.
21. Bartels—see v. Ziemssen's Handbook.
22. Deutsch. Arch. f. klin. Med., Vol. 29, p. 129.
23. Zeitschr. f. phys. Chemie, Vol. 8, p. 395.
24. Monatshefte f. Chemie, Vol. 12, p. 233, 1891.
25. N. Y. Med. Journal, Aug., 1900.
26. Virchow's Archiv, Vol. 109, p. 418, 1887.
27. Charité Annalen, Vol. 17, p. 206.
28. Berl. klin. Wochenschrift, 1896, p. 72.
29. Verh. d. XIV. Congr. f. inn. Med., p. 19.
30. Inaug. Diss., Leyden, 1898.
31. Zeitschr. f. phys. Chem., Vol. 22, p. 556, 1897.
32. Clinical med., p. 310, 1898.
33. Centr. f. inn. Med., Vol. 20, p. 625, 1899.
34. l. c.
35. Med. Jahrbücher, Wien, 1887, p. 479.
36. Arch. f. exp. Path. u. Pharm., Vol. 41, p. 265, 1898.
37. Wien. klin. Rundschau, 1896, p. 1.
38. Deutsche med. Woch., Vol. 16, p. 741, 1890.
39. Unters. über die Gicht, p. 3, 1896.
40. Virchow's Archiv, Vol. 152, p. 107, 1898.
41. Berl. klin. Woch., 1897, p. 844.
42. Compt. rendu t. 100, p. 1308, C. R. t. 3, p. 454, 1896.
43. Moleschott's Unters., Vol. 14, 1891.
44. Arch. f. Anat. u. Phys., 1893, p. 393.
45. Zeitschr. f. phys. Chemie, Vol. 19, p. 189, 1895.
46. Arch. f. exp. Path. u. Pharm., Vol. 44, p. 59, 1900.

NOTES.

The following addition is made to Dr. Steel's article on the **Relation of the Pancreas to Diabetes**.

A paper read by Dr. C. A. Herter before the Pathological Society of Philadelphia, on April 10th., 1902, appears to throw light upon some of the conflicting statements. Dr. Herter is of the opinion that the production of glycosuria after the injection of products of the suprarenal capsules is due to the reducing action of some substance contained in the glands upon the cells of the pancreas. His experiments were suggested by an experiment in which he painted a solution of adrenalin chloride directly upon the pancreas of a dog. The application was followed by marked glycosuria. He then tried various chemical substances, among them piridin, piperidin and quinidin with the same result, all of which substances have more or less power of reduction; and then various inorganic substances the reducing power of which is well

known, such as potassium ferrocyanide, cuprous oxide and sulphurous acid with the same result. Oxidizing agents such as hydrogen peroxide and potassium permanganate, applied in a weak as well as strong solution had no effect in producing sugar in the urine. A normal solution of sodium chloride which he used as a medium for the application of the adrenalin chloride, had no effect, showing that osmotic disturbances were not responsible for the phenomenon. He concluded from this that the action of the suprarenal glands in producing glycosuria is probably due to their reducing power exerted upon the cells of the pancreas.

This is by far the most exhaustive series of experiments that has been made upon this subject and appears to settle the question very definitely against the existence of a glycolytic ferment in the adrenal extract.

Dr. Leo Loeb, who is continuing his studies upon the transplantation of the sarcoma of the thyroid gland of a rat, at the Gratwick Laboratory of the University of Buffalo, writes us as follows regarding the significance of his experiments in relation to the infectious nature of sarcoma:

"As the tubercle bacillus in most cases produces tubercles, so the *hypothetical* organism of sarcoma might produce a sarcoma out of the connective tissue into which the organism has been introduced without a cell being implanted. The analogy, however, is not meant to go further and there can be no question that the tumors under discussion are as true sarcomata as any tumors described as such. If we cease to call these tumors sarcoma, we can no longer designate any tumors under this name. But if a micro-organism produces these tumors, it is a micro-organism closely related to the micro-organism or micro-organisms which cause the other sarcomata."

(There can be no question that up to the present time Dr. Loeb's work is the most important positive work regarding the infectiousness of malignant tumors, that has been done in America.)

OTOLOGY, LARYNGOLOGY AND RHINOLOGY.

By FRANCIS R. PACKARD, M. D.,
of Philadelphia.

Lartigau and Nicoll (*American Journal of the Medical Sciences*, June, 1902), have made a most exhaustive "study of hyperplasia of pharyngeal lymphoid tissue (adenoids), with especial reference to primary tuberculosis of the pharyngeal tonsil." They touch briefly on the anatomy and physiology of the normal tissues which form the lymphoid structures known as Waldeyer's ring, and then proceed to consider the pathology of simple adenoids. An analysis of 600 cases in the children's section of the Vanderbilt Clinic shows adenoids occurring 35 times in all classes of disease (5 per cent). The authors believe this estimate is really too low. No adenoids were found in 100 cadavers of infants under one year at the New York Foundling Hospital. As in that institution the condition is frequent between the ages of 3 and 4 years, such a finding is significant. Adenoid vegetations consist essentially of hyperplastic pharyngeal lymphoid tissue. A careful microscopical study was made of 46 specimens. The epithelial covering of the growths varied greatly in thickness. Thirteen specimens presented the epithelium normal for that portion of the pharynx; 32 specimens revealed squamous epithelium in greater or less amount on the surface. Small and superficial areas of mucous membrane necrosis were occasionally noted. Bacteria were usually present in the necrosed and subjacent tissue. Almost all of the specimens showed a more or less distinct basal membrane beneath the epithelium. In the lymphoid tissue, aside from greater or less hyperplasia of the lymphoid cells, few definite

lesions were observed. The relative amount of lymphoid and fibrous tissue in the structure of adenoids varies greatly. In 45 specimens studied, 29 showed noteworthy increase of the fibrous tissue. Fibrous thickening of the bloodvessels was noted in 17 of the specimens. Careful bacteriological studies gave interesting results. Cultures were made from 11 adenoids. At the end of 10 days incubation 5 of the tubes remained sterile. Of the other 6 tubes, 3 showed streptococcus pyogenes, in one instance accompanied by staphylococcus pyogenes aureus; one showed staphylococcus pyogenes albus; one showed diplococcus lanceolatus and staphylococcus pyogenes aureus and albus; and one showed an unidentified bacillus, with diplococcus lanceolatus and staphylococcus pyogenes aureus. The authors present an exhaustive résumé of previous studies bearing upon primary tuberculosis of the pharyngeal lymphoid tissue followed by an account of their own investigations. They tested 75 consecutive specimens of adenoids for tuberculosis. Out of the 75, 12 induced tuberculosis in inoculated animals; of these 8 specimens contained tubercle bacilli and showed lesions more or less characteristic histologically of tuberculosis. The remaining 4 contained tubercle bacilli, but presented no histological lesions of tuberculosis. They think primary tuberculosis of the pharyngeal lymphoid tissue is more common than is generally supposed. Tubercle bacilli may find lodgement in adenoids from the inspired air, or secondarily from the sputum, or by lymph and bloodvessels.

Dr. Herbert Tilley (*British Medical Journal*, April 19, 1902) contributes "some observations on 35 cases of chronic suppuration of the maxillary antrum," which present features of much interest and importance to the general practitioner, as well as to the specialist in rhinology. After touching briefly on the anatomy of the maxillary antrum he takes up the consideration of the etiology of suppuration within it. He believes that dental caries is the most frequent, although many more cases occur from infection through the nasal chambers than is usually supposed. He emphasizes the fact that although the crown of a tooth may appear healthy, a condition of pyorrhoea alveolaris may extend the whole length of one or more of its roots, and thus infect the antrum. In 4 of his cases the frontal, ethmoidal and sphenoidal sinuses were also in a state of chronic suppuration. It is hard in such cases to determine the exact location of the primary focus of suppuration. It may be that all the sinuses were infected simultaneously, or that the higher sinuses were alone primarily involved, the antrum acting as a receptacle, more than as a generator of pus, or the antrum may have been the first infected and the septic poison conveyed from it to the other sinuses. Three of his cases had atrophic rhinitis. Dr. Tilley lays special stress on the diversity of symptoms, and their misleading characters in antral suppuration. Besides the local symptoms patients may suffer from headache and neuralgia, various forms of indigestion, pharyngeal and laryngeal irritation, etc. Two of Dr. Tilley's patients were sent to him because they complained of aural symptoms. The prognosis of antral suppurations is a difficult problem. If uncomplicated by similar disease in the ethmoidal or frontal sinuses, by nasal polypi, or by such gross lesions as caries of the bony wall of the sinus, the prognosis as regards relief of symptoms is good, but a cure or total cessation of discharge is a risky thing to promise. Four points, especially, weigh heavily in prognosis; the source of the original infection, the length of time which has elapsed before treatment is begun, the general health of the patient and the persistence and regularity with which the patient will follow the prescribed treatment. After carefully considering the diagnosis of antral suppuration, Dr. Tilley brings forth the two methods of treatment which are alone likely to prove of service. The first is by drainage and irrigation through an opening in the alveolus, kept patent by a silver tube. The other method is the radical operation of

laying open the sinus and removing any dead bone as other source of pus. He thinks that the alveolar method should be given a trial in all cases before a resort to the radical operation.

A. Logan Turner (*Edinburgh Medical Journal*, May, 1902) contributes a most interesting and timely article on "the submucous areolar tissue of the larynx, and its significance in the spread of edema." He directs attention to the fact that edema of the larynx is an objective clinical phenomenon and not a disease. There are 2 well-marked varieties, the inflammatory and the noninflammatory. The former occurs as a manifestation of renal or cardiac disease, or from venous obstruction in the neck. He reports 3 cases from his personal experience, of the inflammatory type. The interest attached to these cases led the author to conduct a series of injection experiments, which he details at length, the text being accompanied by a number of excellent illustrations showing the results he attained. Thus when an injection was made into a fresh cadaveric larynx at the anterior margin of one glosso-epiglottic fossa and the amount of fluid injected, and of pressure applied gradually increased, the artificial swelling involved the whole anterior face of the epiglottis in that particular glosso-epiglottic fossa, after considerable increase of pressure it passed over the median line into the fossa of the other side, but it never crossed over the tip of the epiglottis, from its anterior to its posterior surface. This was because along the line of the free margin of the epiglottis the mucous membrane is very closely applied to the underlying cartilage, and the loose cellular stratum disappears. This explains the cases of so-called "angina epiglottidea anterior." Turner was able to demonstrate very clearly why edema is so apt to present itself in the aryteno-epiglottic folds. An enormous swelling could be produced experimentally because of the large quantity of loose areolar tissue between the 2 layers of mucous membrane which make the folds. Edema could be produced experimentally of both the false and the true vocal cords. Edema of the true cord depends mainly upon a serous infiltration of the areolar tissue in it. In conclusion Turner points out that edema originating in the region of the tonsils will pass downward to the glosso-epiglottic fossae and thence will find its way to the ary-epiglottic folds. Edema of the lateral wall of the pharynx will spread to the pyriform sinus, and from there reach the ary-epiglottic fold. In this way dyspnea may supervene on faucial or pharyngeal inflammation.

A case of sarcoma of the tonsil is reported by Authur G. Root (*New York Medical Journal*, April 12, 1902). The patient was a man, 23 years old; his family and personal history had no bearing on his tonsillar trouble, which was first noticed one year before he came under the observation of Dr. Root. The latter performed lateral pharyngotomy. The patient's condition became so bad during the operation that it was deemed wise to interrupt it and attempt the removal of more of the growth at another time. The patient died about nine months after the second operation. Dr. Root states that some 45 similar cases have been reported.

With the May number of *The Laryngoscope*, Dr. Jonathan Wright, concludes a series of most interesting articles on the "nose and throat in the history of medicine." The subject is not one that lends itself to abstraction, but the articles will well repay the perusal of physicians, whether particularly interested in laryngology or not. The papers deal with the subject from the earliest times to the present and indicate much learning and research on the part of the author.

Secondary hemorrhage on the fifth day after tonsillotomy, is reported by Lee Weber (*The Laryngoscope*, April, 1902). The patient was a five-year-old girl. There was but little hemorrhage at the time of operation. The secondary hemorrhage was profuse, but was checked by quiet rest in bed, with the use of ice, adrenalin solution, and Monsel's solu-

tion. The author refers to a very similar case, reported by Dunbar Roy, in *The Laryngoscope* for February, 1902.

"The subcutaneous injection of Paraffine in the correction of Nasal Deformities," is the subject of an interesting communication by Harmon Smith, M. D., (*New York Medical Journal*, May 17, 1902). The article is illustrated with pictures of some of the results obtained by Dr. Smith. They were all cases of saddleback nose. This method was first used by Gersuny, of Vienna, in 1900, and consists in injecting paraffine subcutaneously, the substance retaining its shape under almost all circumstances. The first case reported in this country was reported by Dr. J. F. Lynch; the second by Dr. A. C. Heath. Dr. Smith has made experiments on the cadaver to determine the amount of pressure necessary and the course which the paraffine takes after injection. He first heated the tissues to the normal temperature of the living body and then injected over the dorsum of the nose 2 drams of liquefied paraffine at 115°F., using considerable pressure. The tissues rose up readily and, after the paraffine had hardened, he dissected away the integument and found the paraffine forming a perfect cast of the outer surface of the two nasal bones. On injecting the paraffine into the lower end of the nose he found the skin too closely connected with the lateral cartilages to make it successful, the paraffine damming back into the tissues. He also made a number of injection experiments upon rabbits. In his clinical work Dr. Smith observes rigid asepsis. Prior to injecting the paraffine he injects 5 minims of a 4% solution of cocaine; the paraffine is sterilized before using; he heats it in a paraffine vessel until it melts and bubbles, expelling the air, the temperature being about 115°F. Then, with a forcible aspirating syringe and a large needle, he draws the paraffine up, evacuating the air bubble, submerges the syringe, needle and all in sterile water at a temperature of 120°F.; this keeps the paraffine liquid. He then lifts the soft tissues of the nose above the dorsum with the left hand, inserts the needle well beneath the skin, carrying its point beyond the site of greatest deformity. The injection is made slowly, care being taken that the paraffine does not force its way to the inner canthi of the eyes where there is a mass of loose areolar tissue. The paraffine remains plastic for about ½ a minute and can be molded as desired at this time. The article is a most valuable and interesting one.

A case of "epilepsy apparently of nasal origin" is reported by Dr. Robert Craig, (*Montreal Medical Journal*, April, 1902). The patient was a poorly nourished young man of 19, whose history stated that he had suffered from nose-bleed, headaches and epileptic fits for the past 5 years. The fits were becoming more and more frequent. The patient was unable to concentrate his mind upon his daily work and inclined to feel despondent. The nasal examination revealed a small ulceration in the right nostril on the anterior half of the septum associated with a large septal spur extending almost from the anterior naris of the right nostril to the clivana and pressing on the posterior half of the middle turbinate. The left nostril was normal; there was considerable congestion in the naso- and pro-pharynx. Treatment of the nose and throat resulted in the patient being able to resume his daily duties, making a considerable gain in weight, and there has been absolutely no recurrence of headache, nosebleed or epileptic attacks. In the discussion of the case many of the participants thought it was probable that the so-called epileptic seizures were in reality hysterical.

A New Treatment for Deafness from Chronic Catarrh of the Middle Ear; a preliminary report. W. H. Bates (*New York Medical Journal*, May 3, 1902). The author reports gratifying results from an entirely new radical procedure in the treatment of middle ear deafness. He thinks the chief cause of this form of deafness is the formation of connective tissue in

the middle-ear especially about the orifice of the oval window. The object of the operation he suggests is to remove all newly-formed connective tissue from the middle ear cavity. The patients in whom it is indicated are those who present symptoms of obstruction in the sound-conducting portion of the ear. All heard the tuning forks of the Hartmann series better by bone than by air conduction. Most of them were unable to hear a loud ticking watch. Ordinary conversation was heard with difficulty. Paracusis Willisii was present. The membrane was in some cases sunken or otherwise altered, while in others it appeared nearly normal. The skin incision is made as in the ordinary mastoid operation. After dissecting the auricle free and cutting through its cartilaginous portion, the postero-superior wall of the external auditory canal is chiseled away until the antrum is reached. The outer wall of the attic, the membrane and ossicles, and overhanging bone were removed, converting the tympanum, external auditory canal and mastoid antrum into one smooth-walled cavity. The wound is closed and the patient confined to bed for a few days. The most important feature of Dr. Bates's treatment is now instituted: namely, the removal and prevention of recurrence of connective tissue from the inner wall of the tympanum. This, he states, is extremely difficult. It is best accomplished by cutting instruments, such as a Graefe cataract knife, a Sexton's trowel-shape knife, or Wilde's mouse-toothed ear forceps. The instruments must be very sharp and sterile. The removal should be done under cocaine anesthesia. The immediate effect of cutting away the connective tissue as it forms is usually a temporary loss of hearing. A few days after removal, its place will be taken by soft friable tissue which should be removed as soon as noticed. By persistence in the removal of all new-forming tissue, the inner wall of the tympanum ultimately becomes lined with a thin, light-colored, smooth, dry membrane. During 8 years Dr. Bates has treated 20 cases in this manner. The youngest patient was aged 8 years, the oldest 68. In none was the hearing made worse. In some cases, in which both ears were affected, operation upon one ear was followed by improvement in both. The average duration of treatment after operation was 6 months.

"Varieties of Nerve-deafness" is the subject of a most interesting article by Dundas Grant (*The Journal of Laryngology, Rhinology and Otology*, April, 1902). He says, in the present tendency on the part of otologists to devote all their energies to the study of suppurative processes in the temporal bone, there has been rather a lapse in the study and consideration of the many cases of so-called "nerve-deafness," and this has led to many of the victims of the latter complaint being relegated to the class of incurables, whereas in reality many such cases can be relieved or even cured when the cause is ascertained. Nerve-deafness includes dulness of hearing produced by disease of the auditory nerve, its nuclei, the cortical centers or the strands connecting them. He discusses at length the means by which we determine the existence of nerve-deafness and the nature of the lesions which may produce it. After detailing the many types he concludes with suggestions as to treatment, especially advocating pilocarpine in congestive conditions of the labyrinth and strychnine in the opposite condition, anemia of the labyrinth.

In *The Journal of Laryngology, Rhinology and Otology* for May, 1902, Grant reports "a case of neurasthenic nerve-deafness" in which accurate diagnosis resulted in the relief of a condition which had heretofore proved very baffling.

In the *Archiv für Ohrenheilkunde*, Vol. LIII., there is an interesting contribution by Hammerschlag on nerve deafness of rheumatic origin. The author has collected some cases from the literature and added 2 from his own experience.

Ear Complications and Sequelae of Influenza are discussed by M. A. Goldstein in *The Laryngoscope*, March, 1902. He advocates free incision of the drum membrane at the

earliest indication of effusion into the tympanic cavity. Conservatism is urged concerning operative interference when mastoid symptoms appear.

The danger of rupture of the carotid artery in consequence of its proximity to the ear is illustrated by 2 cases, reported by Jürgens (*Monatsschrift für Ohrenheilkunde*, January, 1902). The patients were 2 army recruits who hit upon the ingenious plan of putting a caustic in the external auditory canal in order to incapacitate themselves for military service. In both instances the canal wall was eroded and the artery opened. Both patients died of subsequent septic complications, not of primary hemorrhage.

A case of otitic brain abscess is reported by Dr. Robert Lewis, Jr., (*Medical Record*, March 15, 1902), which presents an instructive demonstration of the results of neglecting a long-continued suppuration of the middle ear. The patient was a woman, 23 years old, who had had a purulent discharge from the left ear since childhood. She suddenly developed symptoms of brain abscess. The usual incision was made over the mastoid and much cholesteatomatous material with extensive necrosis was found in the region of the antrum. A fistulous opening was found leading from the tegmen tympani for some distance into the cranial cavity. This led to an extradural abscess, the cavity of which was about the size of a black walnut. The patient recovered completely and 12 weeks after the operation there were no cerebral symptoms, the tympanic cavity was completely epidermized, and the woman declared that her physical condition was better than it had ever been.

Dr. Philip Hammond, (*Boston Medical and Surgical Journal*, May 15, 1902), has written an article of much value on "Diseases of the Ear of Interest to Insurance Examiners." He says that the present ruling by which nearly all companies refuse to consider persons having a suppurative condition in either ear, although some accept candidates who have had no discharge for 3 months, is not a sufficient protection. He quotes the figures of Bürkner, confirmed by Randall and Schwartz, that three-tenths per cent. of all ear patients die from intracranial disease. At Guy's Hospital, between the years 1869 and 1888, there were 57 deaths from purulent ear disease out of 9,000 cases of all kinds, or about two-thirds of one per cent. At the Vienna General Hospital the records of over 40,000 post mortem examinations show that 232, or about .58 per cent., died of aural complications. von Troltsch thought a suppurative disease of the ear as serious a risk to accept as many cases of valvular heart disease, phthisis or hernia. Hammond says the existence of a chronic discharge which persistently baffles all treatment should be considered as very unfavorable. When the discharge ceases, leaving an open perforation in the membrane, the case may be accepted conditionally. A case in which the suppurative ear heals by forming a new cicatricial drum may be accepted without reservation. He very wisely says that but little weight should be given the statements of the patient as to the previous existence or nonexistence of aural abscesses or discharge. He quotes cases illustrating the valuelessness of such testimony. Occasionally the suppuration in the ear is the earliest evidence of a tuberculosis which becomes general. The author points out that the danger of death from suppuration in the ear is almost as great in acute cases as in chronic. He calls attention to the existence of lupus or malignant growths in the auricle, which are undoubtedly occasionally overlooked as sources of danger to life. One point which should be emphasized is the extra-liability of persons partially deaf to accidental injury. Vertigo is alluded to as frequently a symptom of very serious conditions. Dr. Hammond concludes his interesting article by referring to the great improvement in the prognosis of suppurative conditions due to advance in methods of treatment.

RETRODISPLACEMENT OF THE UTERUS.

By W. A. NEWMAN DORLAND, M. D.,
of Philadelphia.

The Position of the Uterus.—Broun (4) states that the chief agents maintaining the uterus in its natural forward position are the uterosacral ligaments and the intra-abdominal pressure. The uterosacral ligaments by their attachment draw the lower segment of the uterus in the backward direction toward the sacrum. As a result of this backward position of the cervix the body of the uterus assumes a forward position. In this position the intra-abdominal pressure is directed against the posterior wall of the uterus, pushing this organ still more forward and, with the uterosacral ligaments, maintaining it in this position. The broad ligaments and the included round ligaments act more as guys to the fundus of the uterus, preventing too great a motion backward. MacEvitt (12) offers another explanation for the position of the uterus. After describing the reflexion of the pelvic peritoneum, he states that the uterus and its appendages are practically suspended, and that its position depends upon the peritoneal folds and the empty or full state of the bladder. The peritoneal folds would have but little supporting power were they not reinforced by the pelvic fascia, which really contributes the true ligamentous tissue, and upon the same pelvic fascia depends the integrity of the pelvic viscera and the parturient canal. H. C. Coe (7) claims that both of these statements, contradictory as they may appear to be, are in part true, but that neither of them offers an adequate explanation of the uterine position, nor is consistent with anatomical conditions. It is true, he remarks, that the anatomical arrangement of the ligament is such that the uterus is thrown into a forward position, but that the ligaments, made up of peritoneal folds with few involuntary muscle-fibers passing between them, have any real supporting power to stand the varying movements and pressures to which the organ is subjected, is not consistent with their anatomical structure or position. It is more probable that they simply act as guys to steady the uterus in its position in the pelvis, and under the stimulus of pregnancy may take on more important functions, but the fundamental power that maintains the forward position of the uterus is the intra-abdominal pressure. That this force may act properly two elements are essential—firm abdominal walls and a firm pelvic floor. When these are normal an equilibrium is obtained in the abdominal cavity, so that the uterus is floated rather than supported at the pelvic brim, adapting itself to the ordinary conditions of the bladder and rectum and the changes caused by respiration and exercise, without placing any strain upon the ligaments. Owing to the anatomical arrangement of the ligaments the intra-abdominal pressure acts with greatest force upon the posterior surface of the uterus, and thus tends to increase and maintain the forward position. The importance of the abdominal walls and pelvic floor to a proper position of the uterus is proved by abundant clinical evidence. Leaving out inflammatory conditions and new-growths, which bring other elements into the question, a careful study of uterine displacements will show as a primary cause some change in the intra-abdominal pressure produced either by relaxation of the pelvic floor or of the abdominal walls or of both. When these structures are injured by parturition or excessive muscular strain, the equilibrium of the abdominal cavity is distributed, and the uterus is no longer floated at the pelvic brim, but descends more or less into the pelvic cavity, until the ligaments are stretched. These now become true supports to the uterus, but are wholly inadequate to the work placed upon them, as evidenced by the progressive increase in displacement if the primary causes of the condition are allowed to persist. Furthermore, the symptoms of the displacement seem to be in direct proportion to the strain placed upon the uterine ligaments, and the success in the treatment of the condition depends not so much upon shortening this or that ligament as upon thorough repair of the injured pelvic floor and an artificial support to the relaxed abdominal walls, so that the intra-abdominal pressure may be as nearly normal as possible.

Etiology of Uterine Displacements.—Henry C. Coe (8),

in considering the etiology of this condition, offers the following deductions: Muscular atony is an important factor in the causation of uterine displacements, either alone or associated with the usual factors, namely, overweight of the uterus and weakening of its ligaments and the pelvic floor. Mere restoration of the organ to its normal position with regard to the axis of the pelvis is not sufficient to cause permanent relief of the symptoms, provided additional support is not afforded by firm pelvic and abdominal muscles. The prognosis as to the cure of malpositions by operations is influenced by the general muscular tone of the individual. Hence it should be the aim of the physician to endeavor to restore such a healthy condition of the muscles either before or after operation by appropriate treatment, including baths, massage, electricity, gymnastic movements, out-of-door exercise, tonics and such regulation of the patient's dress and mode of life as seems best fitted to the individual case. In short, Coe remarks that the work of the physician often begins where that of the surgeon ends, if the result is to be completed permanently.

E. P. Davis (9) remarks that the importance of retroversion and retroflexion of the uterus in producing disability and disease is not at present considered so great as in former years. Naegle found retroversion of the womb the only displacement of the uterus during the period of embryonal development. Rouge found 2 cases of retroflexion of the uterus in newborn children, Küstner, a retroversion of the uterus in an embryo, 23 cm. long; and Kölliker and Tschaussow found retroflexion of the uterus in newborn infants. The occurrence of this condition among adults has been made the subject of statistical study. Schröder examined 411 patients at Königsberg. Of these women 118 or 28.7% had retroversion and retroflexion; and, among these, 76 or 18.49% had retroversion and 42 or 10.23% retroflexion. Of the 411 patients 303 had no symptoms referred to the pelvic region, and among these there were 79 cases of retroversion and retroflexion of the uterus, or 26.7%. The remaining 108 patients complained of pelvic disorders and among these 39 or 36.11% had retroversion or retroflexion of the uterus. These statistics indicate that among patients who have no pelvic disorders more than $\frac{1}{4}$ have retroversion or retroflexion of the womb, and among those who suffer from pelvic diseases more than $\frac{1}{3}$ have retroflexion or retroversion of the womb. It has been a common belief that many cases of retroversion and retroflexion of the uterus arise from subinvolution after abortion or labor. A closer study of this subject does not bear out this belief, and among Schröder's cases 33 $\frac{1}{3}$ % of nulliparous women had retroversion or retroflexion of the womb, while but 25.73% of women who had borne children were found with this condition. It is more than probable that the use of improper clothing during the period of puberty, and lack of proper exercise and development cause retroversion and retroflexion of the uterus more often than subinvolution after abortion or labor. Dorland (10), in discussing this paper, gives as probably the two most important causes of retrodisplacement of the uterus a lack of uniformity in the development of the uterine wall, and extra-uterine inflammatory action due to tubal and ovarian disease and not originating subsequent to labor.

The Treatment of Retrodisplacement.—G. W. Kaan (11) advocates the pessary in cases in which the retrodisplacement is capable of replacement or can be made so by treatment, and in which the pessary is capable of holding it in place and can be worn with comfort. The case must be watched with particular care and the pessary removed with the onset of the slightest pain. The ability to do without the pessary within a year or so occurs in about 25% to 30% of cases. Ordinarily the error is made of selecting too large pessaries. Kaan makes a plea for the more careful treatment of displacements by suitable applications and by pessaries before resorting to operative measures, which are by no means uniformly successful.

The Operative Treatment of Retrodisplacement.—J. E. Bissell (3) has devised a new operation for retroversion of the uterus as follows: The abdomen is opened by the median incision. If pelvic adhesions exist, they are broken up and the attached organs freed, and if the tube or ovaries are diseased, they are removed. The uterus is then grasped at the fundus with the Volsella forceps and pulled

upward. In order to form an exact idea of the extent of relaxation in the round ligaments, a suture is first passed from behind forward through the round ligaments at a point about $\frac{1}{2}$ inch from its attachment to the uterus; the same suture is again passed, but in an opposite direction, through the round ligament at a point about one inch from its first insertion. A similar procedure is followed on the other side. When these temporary sutures are tied, the round ligaments become loose and an exact idea is formed as to the amount of round ligaments to be resected. If the tension on the ligament is found to be too great, the section is made inside the loop. If not sufficiently taut, the section is made outside the loop. Another preliminary, but essential, step is to pass a suture immediately under the round ligament about half an inch and to the outer side of the loop. This, when tied completely, encircles the round ligament and prevents its end from retracting when the section is made; it also facilitates the handling of the ligament when introducing the permanent suture. The same step is taken on the other side of the loop about $\frac{1}{4}$ of an inch from the uterus, but the latter is not so essential as the former. A section of the round ligament is then made inside or outside the loop as is found necessary. The temporary suture forming the loop is then cut and this section of the round ligament is dissected from the broad ligament. The artery of the round ligament is ligated if cut. The permanent sutures are then inserted and the raw surfaces adjusted. The first suture is passed on a round pointed needle from above downward through the center of one of the round ligaments and then through the other cut end from below upward. Two other sutures of the same size are passed, one on each side, but only half way through the ligaments which serve when tied to keep the ends in exact position. The sutures in the round ligament are not tied until the raw surface of the broad ligament made by cutting away the resected portions is disposed of. This raw surface is parallel with the course of the round ligament, but is sewed together with number one catgut on a line at a right angle to its original direction. With a tissue-forceps, the broad ligament is grasped midway on the end of the surface. A suture is passed at this point and continued along the denuded edges to the middle of the opposite side. The suturing of the broad ligament in this manner brings the ends of the round ligament in close apposition. The permanent sutures are then tied.

Franklin H. Martin (13) when operating for this condition of retroversion, makes 2 incisions, one over each pubic spine parallel with Poupart's ligament, and frees the round ligaments. He now passes the forceps into one of the openings and grasps the ligament of the opposite side and ties it to the remaining round ligament in front of the parietal peritoneum. The advantages of this operation are, he claims, that both ligaments are equally shortened; that no sutures are necessary, thus doing away with a possible means of infection; and that there is no pain at the point of attachment, as is frequently the case in the ordinary Alexander operation. In performing ventrofixation, Martin cuts a strip of peritoneum from the parietes with its base at the pubes; he passes this strip through a buttonhole in the fundus of the uterus and attaches its free end to the upper end of the abdominal wound. He places 2 temporary sutures to hold the uterus in place until adhesions have formed. The advantages of this operation are: (1) Its simplicity and ease of accomplishing. (2) The thoroughness of fixation. (3) It positively does away with any form of permanent buried sutures. (4) It accomplishes a fixation which allows of a large range of mobility. (5) The fixation does not directly involve the appendages. (6) Experience demonstrates that the point of fixation is not the source of subsequent irritation of pain. (7) The possibility of pregnancy occurring and going on to normal confinement after this operation.

J. M. Baldy (1), in describing a new operation for retrodisplacement, remarks that Alexander's operation is transitional in nature and will eventually become obsolete. Ventral suspensions will also probably take the same course. An indication of the drift of the unsettled state of mind of surgeons with this class of operations is shown by the large numbers of attempts to devise some procedure which will take the place of these older methods with better results. These operations have all been intra-abdominal. Thus, the round

ligaments have been doubled upon themselves on each side of the pelvis, and the contiguous surfaces, after scarification, have been held in position by sutures; the same ligaments have been brought in contact from each side of the pelvis and attached to the anterior face of the uterus by scarification and suturing; they have been brought through an opening made on the anterior face of the uterus and fastened in this position; they have been brought through an opening made in the broad ligaments and united behind and to the uterus; they have been shortened by excising a portion of them and reuniting the ends. The uterosacral ligaments have been shortened both by doubling them on themselves and by excising a portion and reuniting the ends. The uterus has been freed from the bladder, the bladder has been pushed up from the vagina and the uterus pulled forward, and the two united in this position. Baldy has tried all of these with more or less satisfaction, but has preferred that described by Webster, of Chicago, in which the broad ligament is perforated from its posterior aspect and the round ligaments drawn through the opening thus made and united behind and to the uterus. The advantages of this operation, he believes, are that it tilts the uterus forward beyond the line of axis of the pelvis and holds it in such a position that when intra-abdominal pressure is made the womb tends to move toward the bladder and not toward the hollow of the sacrum. The uterus remains in the pelvis as a pelvic organ. The disadvantages of this operation are that the round ligaments are doubled upon themselves and the tension is so great that the sutures must be cut out and retraction of the ligaments may occur. As to the result upon a future pregnancy, nothing is known, but it is not at all improbable that a certain amount of dystocia may follow the procedure. Baldy has suggested a new operation as follows: The round ligament on each side of the uterus is picked up and a ligature thrown about it close to the uterus and so placed as to secure the artery. The round ligaments are then severed close to the uterus. This leaves the uterine ends of the ligament ligated and the other ends free and bleeding. The bleeding is controlled by a fine ligature applied to each vessel or by the sutures which fasten them in the next step of the operation. A pair of forceps is now made to perforate the broad ligament from its posterior aspect (at the point at which the round ligament is cut on the anterior surface), and the cut (pelvic) end of the round ligament is grasped in the bite of the forceps and pulled through the hole in the broad ligament until it protrudes on the posterior side of that ligament. The opposite side is treated in a similar manner. The cut ends of the round ligaments are now attached by means of sutures to the cornua of the uterus on the posterior aspect of the uterus, directly back of the original point of attachment of the normally attached round ligament. The point of attachment may be made higher or lower, as may be found necessary. If it be required, as much of the round ligament may be cut off before suturing it to the uterus as is necessary to take up any slack and give the proper degree of tension and support to the uterus. The suture is a continuous one and may be either chromicized gut or silk. The effect of this procedure is to draw the fundus and uterus upward and forward into a perfect position. It remains a pelvic organ and has no artificial supports; it is as free to expand in pregnancy as it was originally and there are no adhesions to give future trouble and pain, or possible strangulation of the bowels. In discussing this paper C. P. Noble (14) remarked that the Alexander operation has value and is steadily becoming more popular. Beyea (2) believes that any operation for the cure of retrodisplacement of the uterus which mutilates a supported uterus is of doubtful value. He prefers the operation of ventral suspension. He has reports from 20 women who have become pregnant after this operation, went to full term, and had children born alive. In none was the labor complicated in any way by the operation.

Shortening the Round Ligaments Through the Vagina.—C. J. Bucura (5) warmly defends this operation as it is performed by Wertheim. Of 86 cases so treated only 2 had recurrence of the retroversion at the time of discharge, and these were complicated cases. Seven have since had normal labors; 3 had aborted; 3 were pregnant and comfortable at the time of writing. Of 48 cases in which this operation only was done, 10 had recurrence. While vagino-

fixation and Alexander's operation give better results, the former may cause complications during subsequent pregnancy and the latter sometimes is followed by hernia.

The Alexander Operation.—Gustav Bullius (6) states that immediately after the Alexander operation the uterus nearly always sinks, the fundus re-entering the pelvis at times to the extent of two or three finger's breadth. The vaginal portion is often found at the level of the line of the pelvic spine, either in this line or more often toward the anterior wall, more rarely toward the posterior. All these factors are modified sometime after the operation. Bullius has examined into the situation of the bladder after the operation and its influence upon the uterus according as to whether it is full or empty. In a woman operated upon in January, 1901, he found the fundus of the uterus 3 cm. above the symphysis immediately behind the wall, the neck resting on the line of the spine. An examination made in July revealed the fundus of the uterus midway between the umbilicus and the symphysis. The cervix was directed posteriorly and was somewhat elevated. The anterior vaginal cul-de-sac being slightly stretched, the bladder was full. He withdrew about 500 ccm. of urine and the uterine fundus returned toward the abdominal wall and rested 3 cm. above the symphysis. The cervix rested again at the level of the line of the spine. The ligaments, therefore, conserve their functions, and respond to the bladder-changes after the Alexander operation, but the uterus does not rest in a normal situation. The same observations have been noted in other cases and the author calls attention to the persistence of the functions of the round ligaments after their shortening and believes that this is favorable to subsequent pregnancy.

LITERATURE.

1. Baldy, J. M. *American Jour. Obst.*, May, 1902.
2. Beyea, H. D. *American Jour. Obst.*, May, 1902.
3. Bissell, J. E. *Am. Journ. Obst.*, Jan., 1902.
4. Broun. *Medical Record*, Vol. VI, No. 1.
5. Bucura, C. P. *Zeitsch. f. Geb. u. Gyn.*, Bd. XLVI, H. 2.
6. Bullius, Gustav. *Cent. f. Gyn.*, Jan. 18, 1902.
7. Coe, H. C. *Medical Critic*, May, 1902.
8. Coe, H. C. *New York Medical Journal*, 1901.
9. Davis, E. P. *Am. Journ. Obst.*, March, 1902.
10. Dorland, W. A. N. *Am. Journ. Obst.*, March, 1902.
11. Kaan, G. W. *Annals of Gyn. and Ped.*, Dec., 1901.
12. MacEvitt. *Brooklyn Med. Journ.*, Vol. XVI, No. 31.
13. Martin, Franklin H. *Am. Journ. Surg. and Gyn.*, Sept., 1901.
14. Noble, C. P. *Am. Jour. Obst.*, May, 1902.

MECKEL'S DIVERTICULUM.

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Halstead (*Annals of Surgery*, April, 1902) cites the history of a man, aged 25 years, who, 2 days before coming under observation, was suddenly seized with acute colicky pain distributed over the entire abdomen. This was associated with vomiting, the abdomen became distended and tender on pressure, and absolute constipation developed. Just before operation the pulse had increased to 120 and the temperature to 103°. The patient had had similar attacks before, but had always recovered under medical treatment. A diagnosis of intestinal obstruction either from a congenital band or from adhesions the result of an old appendicitis was made, and the abdomen opened at the outer side of the right rectus muscle. A ring which proved to be a Meckel's diverticulum was found constricting the intestine. The diverticulum was larger than the ileum from which it originated and about 2¼ inches in length. To the distal end of the diverticulum was attached a fibrous cord, which was about 3 inches in length and which was adherent to the root of the mesentery a short distance below the point of origin of the diverticulum; it contained a vein which seemed to communicate with the mesenteric vein. A loop of intestine had passed through the ring formed by the diverticulum and the cord and had become strangulated. The diverticulum was given off 50 cm. from the ileocecal valve. The terminal ligament was ligated near the mesentery and severed and the diverticulum was excised; the resulting opening in the ileum measured 2 inches in length and was closed with through-and-through sutures of silk. Recovery was uninterrupted.

"The malformation generally known as Meckel's diverti-

culum was described first by Ruysch. Its congenital nature was also considered by him. The origin of this structure from the vitelline duct was pointed out by Morgagni. Meckel, although crediting the early writers with possessing a knowledge of this diverticulum, claimed to be the first to explain its origin and to call attention to its presence as a frequent cause of disease. The origin of Meckel's diverticulum may be briefly explained as follows: About the end of the third week of fetal life in the human embryo, the primitive intestine communicates with the umbilical vesical by means of a tube, the omphalomesenteric duct. During the process of closure of the abdominal parietes, which takes place during the fourth and fifth week, this disappears, excepting a thread-like remnant, which passes from the convex border of the loop of the ileum nearest the umbilicus to the umbilicus or the the abdominal wall near by. This thread-like structure usually disappears as the development of the intestine progresses. Most of the growth takes place above the attachment of this cord. This forms the greater part of the small intestine. The portion below forms the remaining part of the small intestine and the large intestine. When the developmental change in the vitelline duct is not completed, there remains a tube or cord, more or less permanently attached to the umbilicus. When a diverticulum exists in its most perfect form, it consists of a tube similar in structure to the small intestine, of varying length, and attached to the umbilicus. In these cases a congenital, umbilical fecal fistula usually exists. This may or may not close spontaneously after birth. In a case cited by Treves, the umbilical fistula appeared first when the child was 3 weeks old, and persisted for 7 years, and then closed spontaneously. In other cases, the tube ends in a blind extremity, and either hangs free in the abdominal cavity or is attached to the umbilicus or mesentery, or some other abdominal organ, by a fibrous band called the terminal ligament. In many cases, the cord breaks from its attachment to the umbilicus and hangs free in the peritoneal cavity. It seldom attaches itself to other structures. The origin of this terminal ligament is the persistence in a varying state of atrophy of the vessels that accompany the vitelline duct. These are the omphalomesenteric artery and vein. During the atrophy of the vitelline duct, these arteries and veins usually disappear, but atrophy of the duct is not necessarily accompanied by disappearance of these vessels. The existence of the omphalomesenteric vascular remains was well known to Meckel, and their transformation into a fibrous band which might prove a serious menace to life was likewise appreciated by him. In his classification of internal hernia, he mentions, as one of the causes of strangulation, the presence at the summit of a loop, a diverticulum of the ileum, with a filament, the remains of the omphalomesenteric vessels, which may become attached and be the cause of obstruction. For many years, explanation of the origin of the terminal ligament, as given by Meckel, was apparently not accepted or not known. In most of the earlier cases reported, and, in fact, up to the time that Fitz published his paper on **persistent omphalomesenteric remains**, the fibrous cord, either hanging free from the distal end of the diverticulum or attached, was generally regarded as of inflammatory origin. It may be said that the existence of inflammatory adhesions between the diverticulum or its ligament and the neighboring organs rarely occurs, and but few authentic cases are found in the literature. Those in which it is said to have been attached to the mesentery by inflammatory adhesions are probably remains of omphalomesenteric vessels which retain their mesenteric attachment. The original points of attachment of these vessels were the intestines, the mesentery and the umbilicus. Any one or two of these may be severed. Usually, we find the cord attached to the intestine or diverticulum, and, by its distal end, to the umbilicus or mesentery. In a case reported to the author by Dr. Henriotin, the terminal ligament of a diverticulum had become adherent to an inflammatory exudate about the stump of the appendix and caused obstruction about 8 days after an operation for appendicitis. It is a well recognized fact that attached diverticula are more often the cause of obstruction than those that are free or unattached. The relative frequency of the points of attachment of the distal end of a Meckel's diverticulum or its terminal ligament is of interest as bearing upon the treatment of this form of obstruction. Treves quotes Cazin's statistics in 23 reported cases

in which he found the distal end attached to the umbilicus in 3, to the small intestine in 6, to the mesentery in 10, to the cecum in 2, to the inguinal ring in one and the colon in one. In 20 cases collected by himself, he found diverticula attached near the umbilicus in 7, to the bladder in one, the femoral ring in one, the small intestine and cecum in one. Kammerer, taking the cases of Neumann and those of Boldt not included in Neumann's list, together with 10 cases that he collected, found that, of the 66 cases, 33 were attached to the mesentery, 13 to the umbilicus and 12 were attached to some part of the intestinal tract or to the other abdominal viscera."

Of the 69 cases collected by Halstead, the attachment was noted in 48, 23 to the mesentery, 15 to the umbilicus, 3 to the small intestine, one to the omentum, one to the transverse mesocolon, one to the mesorectum, and one to a periappendicular exudate. In 3 the exact point of attachment could not be determined.

Cases of intestinal diverticulum associated with accessory pancreas are generally considered to be produced by traction of the accessory gland, and not as true examples of persisting omphalomesenteric duct (Fisher, *Jour. Exper. Med.*, Jan. 15, 1901).

From $1\frac{1}{4}\%$ to $2\frac{1}{2}\%$ is the frequency usually given for the occurrence of a Meckel's diverticulum. Kelynack found it 18 times in 1446 post mortem examinations. In 3400 autopsies performed at St. Bartholomew's Hospital a Meckel's diverticulum was found 27 times. It is difficult to estimate the frequency of intestinal obstruction from diverticula, because in the early cases the appendix was often confused with Meckel's diverticulum and even in recent years cases are put down as due to bands of inflammatory origin which in truth are examples of diverticula. In the 1134 cases of intestinal obstruction collected by Leichtenstern 39% were due to intussusception, 9% to bands and adhesions and 6% to diverticula. In 991 cases (combined cases of Haven, Duchanssoy and Brinton) Meckel's diverticulum was the cause of obstruction in about 6%. Halstead believes that obstruction from Meckel's diverticulum is relatively common and probably occupies a place next to intussusception.

In reviewing the literature Halstead finds that in many of the cases after the abdomen has been opened the cause of obstruction could not be found and was only discovered at the autopsy. In a paper on obstruction by Meckel's diverticulum read at the 1902 meeting of the American Medical Association, Moore said that a western court had awarded \$1,000 damages against a surgeon who admitted removing a Meckel's diverticulum for the appendix.

A diverticulum which is unattached except to the intestine may cause obstruction (rarely) by forming a volvulus through the loop of which a coil of intestine slips; there may be a complete single or double knot tied in the structure, providing it is of unusual length, very mobile, and pear-shaped at the extremity; the intestine may become kinked by the dragging of an unattached, distended, cystic diverticulum; the bowel may become twisted on its long axis from the gyrations of a large distended diverticulum; obstruction may ensue on chronic inflammation of the diverticulum, the inflammation spreading to the adjacent parts and causing a cicatricial stricture of the intestine just above the origin of the diverticulum; there may be an ectropion of the mucous membrane or an intussusception of the entire diverticulum with or without invagination of the segment of gut just below the diverticulum. Twelve cases have been reported which belong to the last group, in 4 the diverticulum alone was inverted, and in 8 there was inversion of the diverticulum and intussusception of the intestine. Wainwright (*Annals of Surgery*, Jan., 1902) gives the history of a lad aged 17 years, who had complained of a fulness after eating and constipation for 6 days. On the seventh day he was suddenly seized with very severe pain in the epigastric region. Thirty-six hours after the acute onset the abdomen was opened and an intussusception about 3 inches long was found about 3 feet from the ileocecal valve. There were as yet no adhesions, and the invagination was easily reduced by pressure on the apex. When the lumen of the bowel was restored, it was found that there was in addition a diverticulum, which was itself inverted. This diverticulum, the inverted apex of which had evidently formed the apex of the intussusception, in its turn was easily reduced and found to be about one

inch long and somewhat less in diameter. The diverticulum was clamped and cut away, and the wound in the intestine closed with silk Lembert sutures.

Obstruction due to an adherent diverticulum occurs more frequently than obstruction from one hanging free in the abdominal cavity. An attached diverticulum causes obstruction by acting as a band which ensnares a coil of intestine; by volvulus of a loop of intestine which has passed beneath the band; by volvulus of the diverticulum which twists the intestine at the point of attachment; by strangulation of the intestine over a tensely drawn band, as a coil of soft rubber tubing might become occluded by allowing it to hang over a tightly drawn wire, thus causing acute flexion; by occlusion from kinking due to traction of overdilated intestine on the loop which is anchored by the diverticulum, and by torsion or inflammation of the diverticulum.

In the majority of cases the onset of obstruction is sudden, but in a few, particularly when the occlusion is due to stenosis or traction of the bowel, there is a history of chronic obstruction. In some instances prolapse of the intestine and diverticulum through the umbilicus is the cause of obstruction. Moore reported a case of this character at the 1902 meeting of the American Medical Association. The patient was a child, aged 7 months, and weighing 12 pounds. During a coughing spell a protrusion appeared at the umbilicus and symptoms of obstruction supervened. The umbilicus was moist and a probe could be passed into the apex of the hernia. An incision was made below the umbilicus, the strangulated bowel freed and the diverticulum, which was about $2\frac{1}{2}$ inches in length, was closed. Recovery followed.

The pre-operative diagnosis of intestinal obstruction from a Meckel's diverticulum is rarely made. Halstead gives the following points as evidence of such a condition: The age of the patient, the condition usually occurring in children or in young adults; the history of preceding minor attacks; the configuration of the abdomen, which is that of an inverted cone due to obstruction of the upper part of the intestinal tract; local meteorism, especially on the right side of the abdomen, under the costal arch, where peristalsis may be visible, fecal vomiting as a rule comes on early; tenderness in the right side on a level or just below the umbilicus, and the co-incident occurrence of other deformities, such as club-foot, harelip, etc. In the 69 cases analyzed by Halstead harelip was present in one case; in no other was there any congenital malformation present. In many instances the condition is mistaken for appendicitis.

Boldt (*König, Specielle Chirurgie*, 1900) reports 55 cases of obstruction from Meckel's diverticulum, 15 of which were operated upon with a mortality of 3 deaths; Berard and Delore have collected 32 cases in which operation was performed with 9 recoveries and 23 deaths, a mortality of 72.3%; of the 69 cases collected by Halstead the termination was mentioned in 66 and of these 45 died and 21 recovered, a mortality of 68.1%; of the 57 cases in which operation was performed the termination is mentioned in 54 with 22 recoveries and 32 deaths, a mortality of 59%.

Hubbard (*Annals of Surgery*, April, 1902) reports a case of Meckel's diverticulum patent at the navel. The patient was a female, aged one month. When the baby was born, a red mass projected from the navel about the site of the cord and when the cord dropped off this was left; it bled persistently and discharged a foul-smelling fluid. The tumor had become gangrenous from the attempts of the parents to tie it off. A probe could be passed into the mass for 2 inches. An incision was made below the umbilicus and a diverticulum 2 mm. long, and 25 mm. in circumference at the base was found arising from the small intestine and passing out through the umbilical ring, the position of the loop was not ascertained. The prolongation was cut off close to the gut and the edges inverted with Lembert sutures. Recovery followed. Hubbard says the patency is usually not discovered at birth, there being nothing abnormal in the appearance of the umbilical cord. When the cord drops off the fistula is found. Other congenital abnormalities are rarely present. The diverticulum may be of considerable length or it may be so short that the intestine practically empties its entire contents through the umbilicus. The mucous membrane of the diverticulum is adherent to the umbilical ring and when the opening is of large size pressure in the abdominal cavity or peristalsis may cause the mucous membrane to evert, forming a small tu-

mor with an opening at its apex. When the communication with the intestine is very small, the tumor closely simulates an umbilical polyp, and the finding of intestinal glands in umbilical polypi demonstrates that many of them are really the vestiges of a diverticula. It is important to bear this in mind and carefully examine polypi in the neighborhood of the navel before snipping them off. Lowenstein cites a case in which the removal of an umbilical polyp was immediately followed by the prolapse of intestine through the umbilical ring. When the opening at the umbilicus is large enough, the posterior wall of the loop of intestine, which has been drawn to the abdominal wall by the eversion of the diverticulum, projects as a spur. Guthrie (*Archives Pediatrics*, Nov., 1896) reports a case of intestinal obstruction caused by this spur becoming wedged into the umbilical ring. When the spur forces its way through the ring there are two openings, one leading into the afferent and the other into the efferent loop of intestine. When an intussusception of intestine passes out through the umbilical opening, the tumor presents 3 fistulae, 2 for the diverticulum which has been divided by the intussusception, and one for the intussuscepted intestine.

The condition must be differentiated from an open urachus, from a fecal fistula, the result of ligating an umbilical hernia with the cord just after birth, and from a fistula, the result of an umbilical abscess. A fecal fistula ensuing on an umbilical hernia discharges all the feces into the abdominal wall, while an uncomplicated diverticulum usually does not. An umbilical hernia protrudes on cough, while a diverticulum does not. The outside of the hernia is covered with serous membrane and not with mucous membrane. The direction taken by the probe and the character of the discharge are the distinguishing points between an open urachus and a patent diverticulum. It may be necessary to make a microscopical examination of the material from the interior of the fistula in order to determine whether or not feces are present.

The treatment consists in abdominal section and excision of the diverticulum. Spontaneous cure is rare. In uncomplicated cases, compression may be applied to prevent prolapse. Including his own case Hubbard has been able to find 9 which have been cured by laparotomy.

Webster (*Annals of Surgery*, April, 1902) reports a case of hernia of Meckel's diverticulum. A woman, aged 42 years, presented a left inguinal hernia which could be partially reduced, a hard mass still remaining in the canal after taxis. At operation a mass looking like intestine was found in the sac. This was found to be a Meckel's diverticulum which arose from the ileum to its mesenteric attachment and which had a distinct mesentery of its own. The diverticulum measured $3\frac{1}{2}$ inches in length. The intestinal lumen was continuous for about 3 inches, the diverticulum ending in a mass, showing some old inflammatory thickening. The diverticulum was excised and the inguinal canal closed. Recovery followed.

At the 1902 meeting of the American Medical Association Moore reported 3 cases of intestinal obstruction from Meckel's diverticulum. The first case has already been mentioned. In the second case the diagnosis was made before operation. The patient was a male, aged 4 years, who presented a tumor in the right lower abdomen. Operation revealed a diverticulum which formed a loop, which had caught and strangulated a coil of intestine. The third patient, a male, aged 19 years, had suffered several attacks of pain in the right iliac region. A tumor could be felt in that region and a diagnosis of appendicitis was made. At operation an adherent diverticulum was removed. Both cases recovered. In the subsequent discussion Means mentioned a case of abdominal cyst which he had seen and which proved to be a distended diverticulum. Tinker said that there had been 2 cases of intestinal obstruction due to Meckel's diverticulum operated upon at the Johns Hopkins Hospital and one case in which the diverticulum was found in a hernial sac. Munroe had seen 4 cases; he thought the diagnosis could be made before operation, as the obstruction

comes on very suddenly and subsides as quickly. In 2 of his cases the diverticulum was found on the left and in one there was a double intussusception at the umbilicus. McArthur related 2 cases which closely resembled appendicitis. Ecklin described a diverticulum which was almost as fine as a thread, but which contained a distinct canal and which was associated with a bicornate uterus and absence of the external genitals. He spoke of the ease with which one could mistake such a structure for an adhesion and cause a fatal peritonitis by tearing it without previous ligation.

On the Question of Leukocytosis in Hanot's Disease (Hypertrophic Cirrhosis of the Liver with Icterus).—N. N. Kiriokoff and K. Iv. Korobkoff (*Russki Archiv Patologii*, Vol. XII, No. 6), do not agree with the accepted opinion that hyperleukocytosis is characteristic of Hanot's disease. Their own observations led them to the following conclusions: (1) Of 6 cases of Hanot's disease, hyperleukocytosis was met with only in one (9,800-15,600), and this case was complicated with pulmonary tuberculosis. The average of 6 determinations in this case was 9,600 leukocytes. (2) In 5 cases, hypoleukocytosis was present, with the following averages: 6,860; 3,970; 1,590; 2,410 and 6,290. The last case was that of a boy in whom the disease existed since childhood. (3) In 2 of the 5 cases, including the case of the boy, the number of leukocytes was frequently normal. (4) The increased leukocytosis following the first few hours after dinner in 4 of the cases, including the case of the boy, was inconstant and no relation was observed between the leukocytosis and the process of digestion. (5) In 3 of the cases there followed a moderate and fairly constant increase of leukocytes after injections of spermine, the spermine leukocytosis having been more marked than the digestive. (6) In general, the leukocytes were diminished in Hanot's disease. (7) Of 17 cases observed by the authors and others, 12 showed hypo- and ortholeukocytosis, and only 5 hyperleukocytosis. (8) Hyperleukocytosis indicates a more recent affection and an acute course, as well as complications or some concurrent disease and grave icterus. (9) Conditions approaching ortholeukocytosis, including the normal leukocytic reaction, are peculiar to patients at the height of the disease, possessing a strong constitution and capable of successful reaction and rapid improvement. (10) The ability to a leukocytic reaction was found generally lessened in patients with a constant hypoleukocytosis. (11) No parallel was observed between the number of erythrocytes and hemoglobin. (12) The condition of leukocytosis in Hanot's disease is probably in intimate relation with the condition of the lymphatic and hemopoietic organs, especially the spleen. (13) The number of erythrocytes ($5\text{--}2\frac{1}{2}$ millions) and the hemoglobin (85-45%) are usually decreased. (14) A relative leukocytosis in 4 cases of hypoleukocytosis was found to be 1:497, 1:1200, 1:2085 and 1:613, in the boy. (15) A relative hyperleukocytosis may be present when the erythrocytes are diminished. [A. R.]

Suppurating Multiple Exostosis, with Syringomyelic Symptoms.—In the *Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, (June 19, 1902) Launois and Roy have reported the most interesting case of a man of 31, both hysterical and tuberculous, who not only showed exostoses upon a great number of bones throughout the body, but also had lost the terminal phalanges of several fingers by spontaneous amputation, following suppuration of exostoses there. Examination showed total, complete thermo-anesthesia on the whole left side of the body, including the face, accompanied by complete analgesia. He also showed hemi-anesthesia of the tongue, a diminution in hearing, narrowing of the visual field, complete absence of the stereognostic sense, anesthesia of the conjunctiva, absence of the pharyngeal and nasal reflexes, and histologic zones in the iliac fossa and right hip. There was no doubt that his left lung was tubercular or that he had hysteria, yet Launois and Roy do not consider the case to be one of syringomyelia. [M. O.]

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